CHALLENGER

IMPORTANT Information about

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803

TELEPHONE: 714/774-1044 • TELETYPE: 910/591-1156

PRODUCT NOTICE NO. 1-68

OLYMPUS DESIGN

Please refer to page 200D-19 of the 200, 300 and 400 Series Mortise Lock Design Catalogue, and change the knob thickness dimension for the Olympus Design from .035" to .050".

The .050" knob is to be the standard knob furnished with the Olympus Design in the future.

All orders for the Olympus Design should specify "with knob .050" to help eliminate the possibility of factory errors.

Please insert this sheet between pages 200D-18 and 200D-19 of your design catalogue for future reference.

CHALLENGER LOCK AND HARDWARE DIVISION

January 15, 1968

Design Page 200D-19 Temp.

IMPORTANT Information about

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803

TELEPHONE: 714/774-1044 • TELETYPE: 910/591-1156

PRODUCT NOTICE NO. 2-68

POWER ADJUSTMENT ON ALL 2140 SERIES DOOR CLOSERS

EXTERNAL SPRING POWER ADJUSTMENT ON NO. 2144-3, NO. 2144 AND NO. 2145 SERIES DOOR CLOSERS

For a number of months, the 2140 Series closer has been equipped with the same adjustable jamb bracket that has been used on the 2150 Series closer. This bracket has three positions in which to attach the arm, allowing a power adjustment of 15% without removing the closer from the door.

In addition to this 15% adjustment, the No. 2144-3, No. 2144 and No. 2145 Series closers are available on special order, with adjustable internal spring tension, adjusted from the exterior by means of an adjusting screw. These closers are designated by the letters "AS" as a prefix to the number.

Top jamb mounting is also available with all 2140 Series closers. See price page 21-1, September 15, 1967.

There is no extra charge for the adjustable internal spring tension.

Please insert this sheet between pages 2130-2 and 2140-1R of your Door Closer catalogue section.

CHALLENGER LOCK AND HARDWARE DIVISION

IMPORTANT Information about

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803

TELEPHONE: 714/774-1044 • TELETYPE: 910/591-1156

PRODUCT NOTICE NO. 3-68

NEW TYPE CROSS BAR ATTACHMENT
2300 SERIES EXIT DEVICES

A new cross bar attachment eliminates the Cherry Rivets and the required boring of holes for these rivets. This new attachment is clamp type and is accomplished by tightening a 5/32" Allen Head machine screw in each end of the cross bar, with the standard dogging key.

It must be remembered that it is still necessary that the cases be mounted squarely and correctly aligned, with the arms free to move so they will not bind.

Please insert this sheet between pages 2302 and 2303 of your Panic Device catalogue section.

CHALLENGER LOCK AND HARDWARE DIVISION

January 15, 1968

Catalogue Page 2302 Temp.

IMPORTANT Information about

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803

TELEPHONE: 714/774-1044 • TELETYPE: 910/591-1156

PRODUCT NOTICE NO. 4-68

HANDING OF K-2380-V EXIT DEVICE

A change in production methods, from a tru-arc ring fastening arrangement to a positively staked assembly to improve the strength and durability of this panic device has been made.

As a result, it is now necessary to order these panic devices handed. Please note the handed requirement in your catalogue, page 2311, and remember to state the hand when ordering.

Please insert this sheet between pages 2310 and 2311 of your Panic Device catalogue section.

CHALLENGER LOCK AND HARDWARE DIVISION

January 15, 1968

Catalogue Page 2311 Temp.

IMPORTANT Information about

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803

TELEPHONE: 714/774-1044 • TELETYPE: 910/591-1156

February, 1968

TO OUR CUSTOMERS:

STOCK ORDERS, QUANTITY DISCOUNT, 800 AND 900 SERIES

Effective immediately, the following discounts will be allowed for quantity purchases on Stock Orders of the 800 and 900 Series Cylindrical Locksets:

800 SERIES

Case Lots of Twenty (20)	No Discount
10 Cases (200)	Less 10%
50 Cases (1000)	Less 15%

900 SERIES

Case Lots of Ten (10)	No Discount
20 Cases (200)	Less 10%
50 Cases (500)	Less 15%

Each case lot must be alike as to function, design and finish. No split cases. The order must be for immediate shipment. Orders may not be grouped to obtain the quantity discount.

CHALLENGER LOCK & HARDWARE DIVISION,
EATON YALE & TOWNE, INC.

NET PRICE LIST #92 CHECK SHEET

Your Net Price List should contain the following pages. If specific pages are missing, please return this sheet with the required pages checked.

PAGE	PAGE	PAGE	PAGE
A	3-13	8-8	14-4
B	3-14	8-9	16-1
C	3-15	8-10	17-1
D	3-16	9-1	21-1
E	3-17	9-2	21-2
1-1	3-18	9-3	21-3
1-2	3-19	9-4	21-4
3-1	3-20	9-5	21-5
3-2	3-21	9-6	21-6
3-3	3-22	10-1	21-7
3-4	3-23	10-2	21-8
3-5	5-1	10-3	21-9
3-6	8-1	10-4	21-10
3-7	8-2	11-1	23-1
3-8	8-3	12-1	23-2
3-9	8-4	13-1	23-3
3-10	8-5	14-1	26-1
3-11	8-6	14-2	26-2
3-12	8-7	14-3	27-1

Please forward the pages checked above.

Name _____

Address _____

_____

EATON YALE & TOWNE INC

CHALLENGER LOCK AND HARDWARE DIV.

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

9-15-67

MONO-LOCK

YALE & TOWNE

CHALLENGER

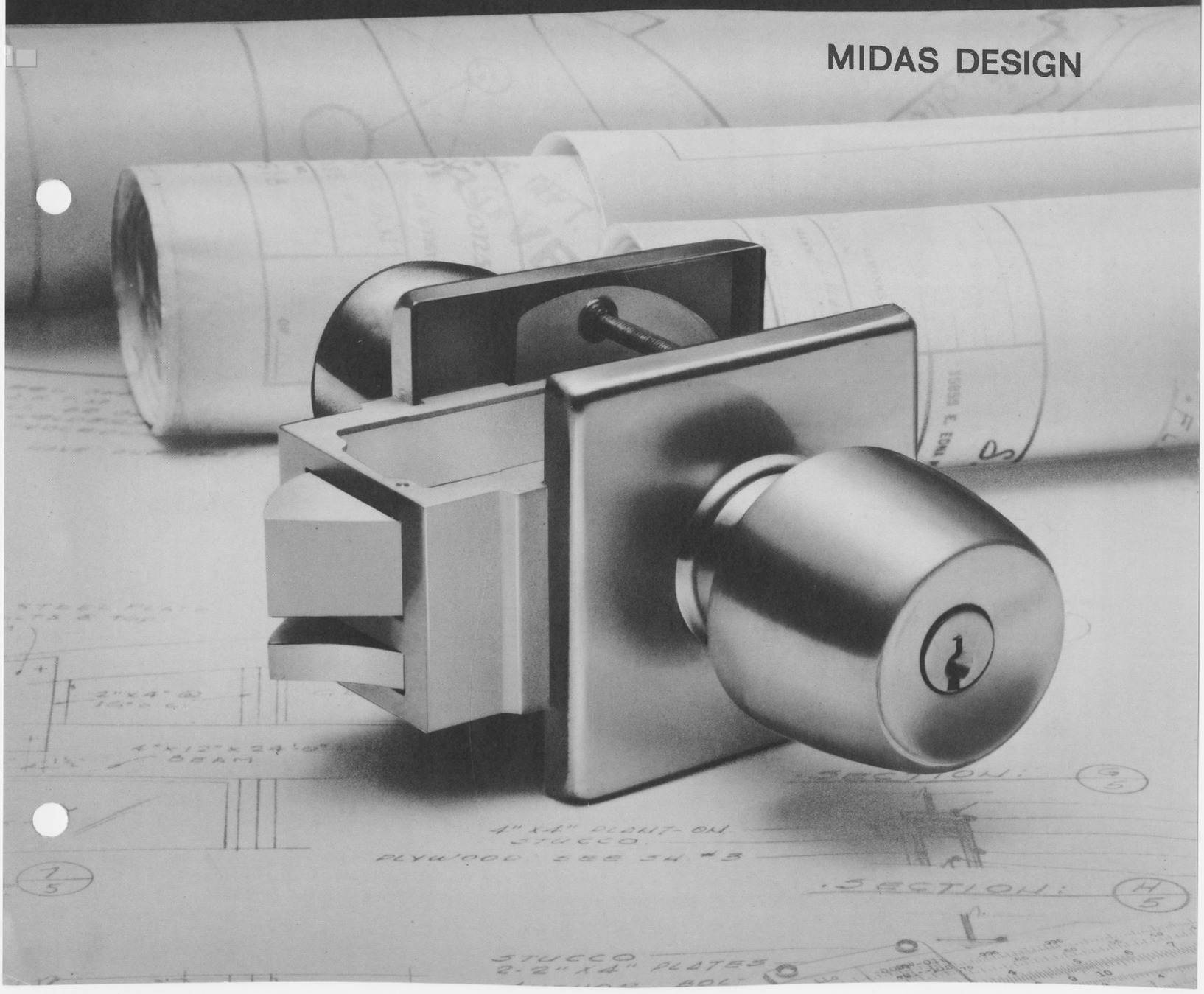
HEAVY DUTY

1600 SERIES

The **ultimate** in a lock for commercial, institutional, school buildings and fine residences that insist on locking quality.

Rugged: Heavy one-piece frame with carefully selected quality materials, precision working mechanism, and concealed screws assure maximum security and durability. **Handsome:** Strong, secure quality is instantly apparent in any MONO-LOCK installation. **Easy installation:** All functions are in standard size case for easy interchangeability. Pin tumbler cylinders offer wide range of keying convenience and control, and can be keyed to existing Challenger master keying systems.

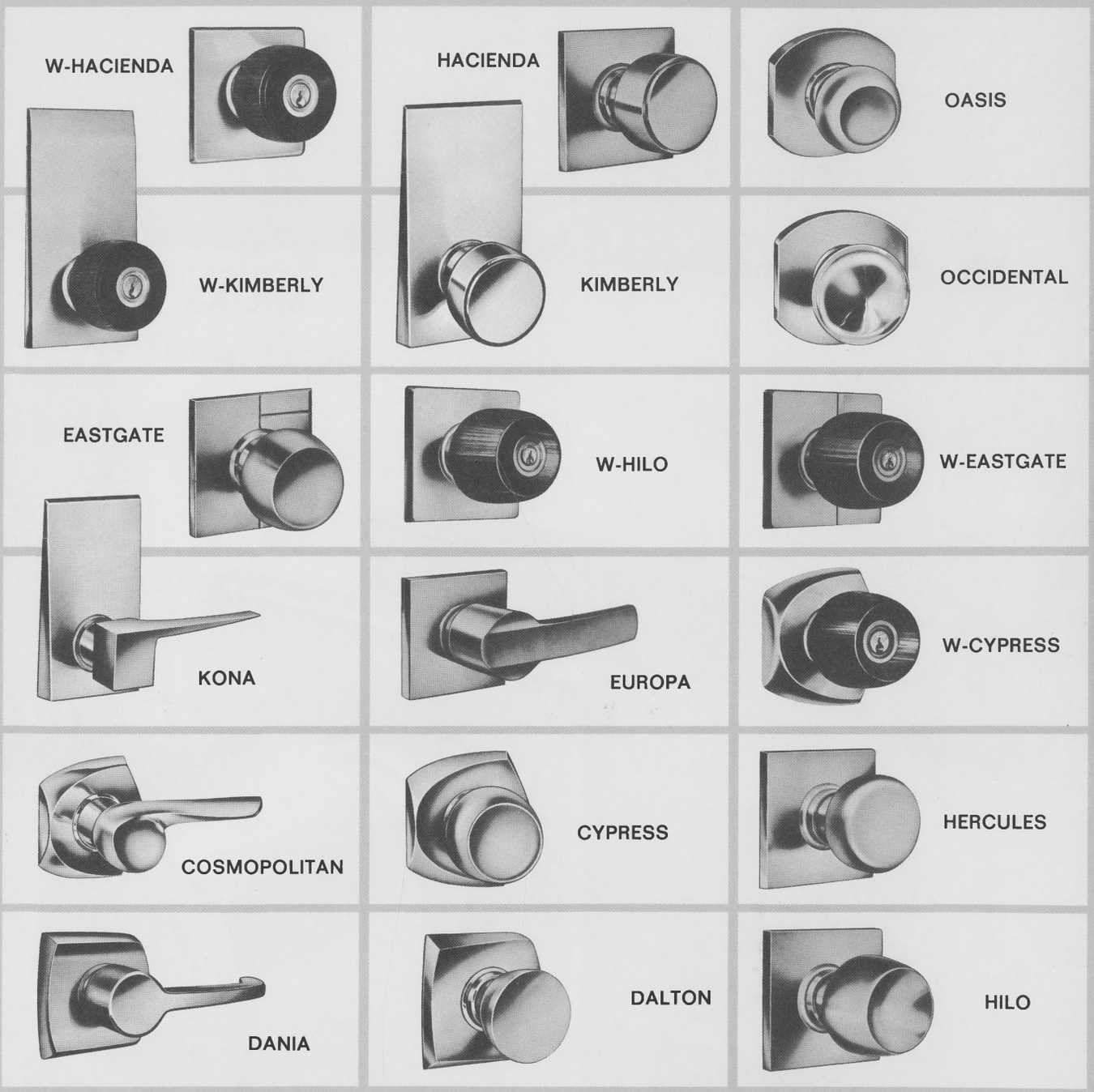
The MONO-LOCK is one more outstanding product in the full Challenger line.



77

POSSIBLE DESIGN COMBINATIONS

Extremely wide range of interchangeable escutcheons and knobs in virtually any finish provides almost unlimited trim opportunities for the design conscious.



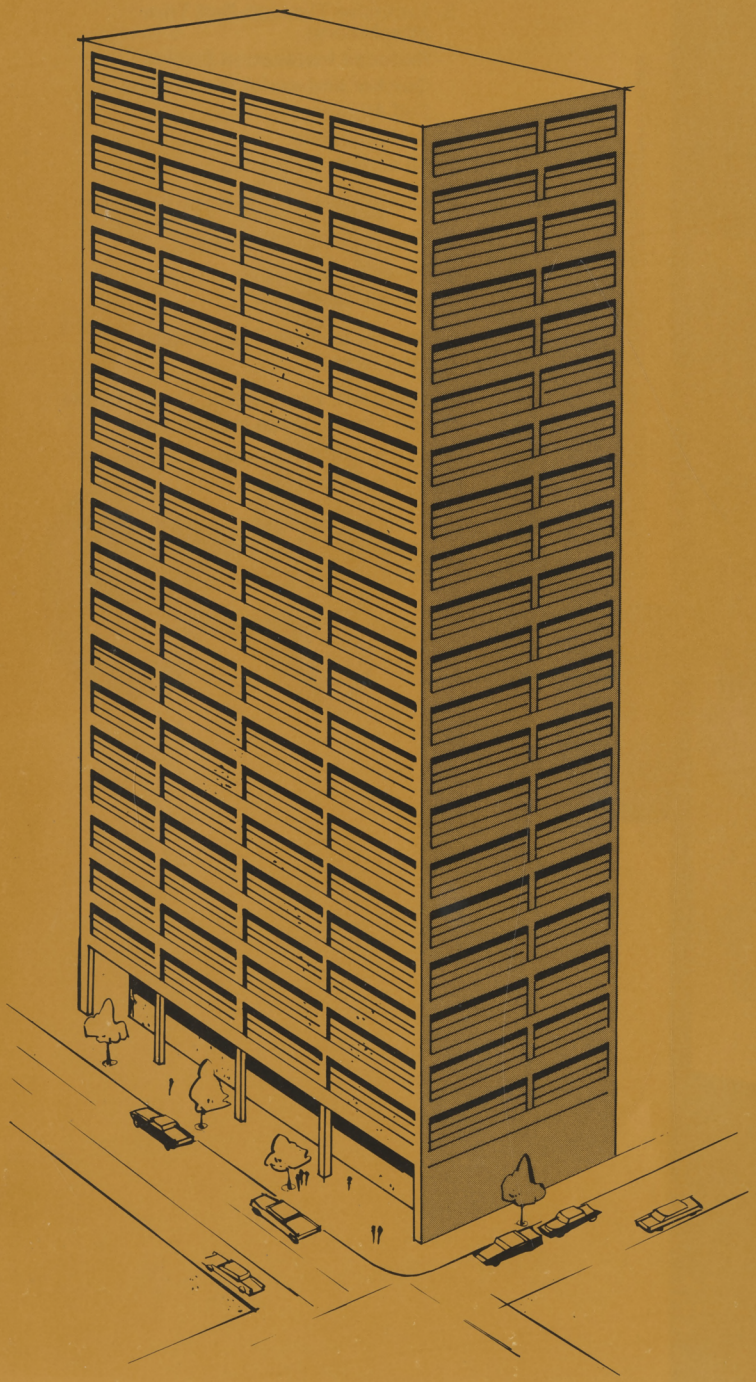
YALE & TOWNE

CHALLENGER LOCK AND HARDWARE DIV.

2349 W. LA PALMA AVE., ANAHEIM, CALIF. 714 PR 4-1044

Heavy duty Mortise Locks

200 300 400 Series



CHALLENGER®

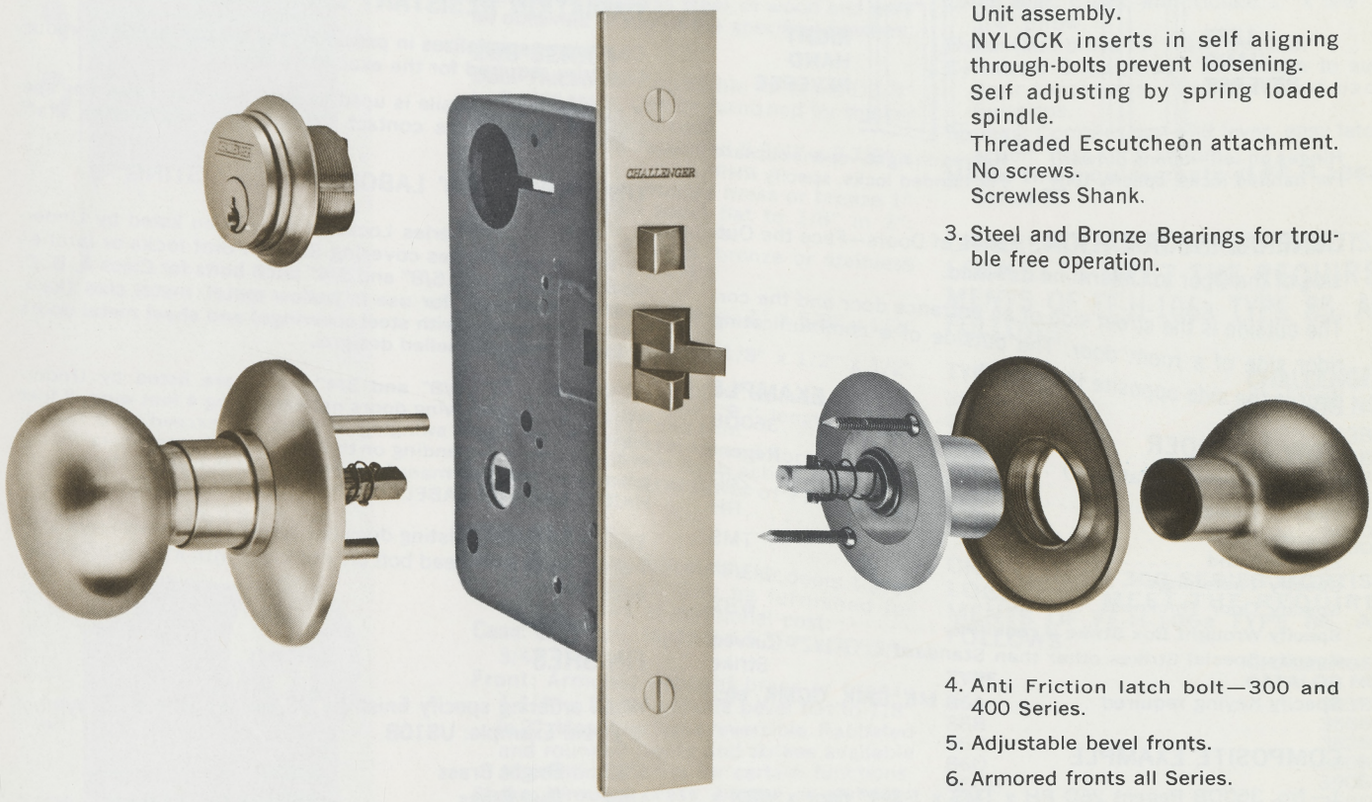
Catalog No. 61



Ten Outstanding Challenger Features Assuring Customer's Satisfaction

1. Standard and Heavy Duty Locks and Latches.
2. Proven dependability over years of usage.
3. Exclusive Through-Bolt Trim attachment:
   Reduced Installation Errors
   Quicker and easier installation
   Self Aligning
   Self Adjusting
   All screwless Shanks
4. Factory Assembled Knob Bearings
5. Minimum Maintenance
6. Rich Wood, Metal and Lever Handle Designs
7. Special Security Type Button Stop Works
8. Sectional, Escutcheon, Lever Handle, and Thumb-Piece Handle Trim
9. Anti Friction Latch Bolts—300 and 400 Series
10. Unconditionally guaranteed against defective material and faulty workmanship.

200
300
Series 400



Construction Features

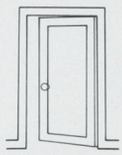
1. Factory assembled outer trim.
   Unit type—fully assembled.
   Self aligning through bolted trim.
   Self adjusting by spring loaded spindle.
   Screwless Shanks.
2. Factory assembled inner fastening assembly.
   Unit assembly.
   NYLOCK inserts in self aligning through-bolts prevent loosening.
   Self adjusting by spring loaded spindle.
   Threaded Escutcheon attachment.
   No screws.
   Screwless Shank.
3. Steel and Bronze Bearings for trouble free operation.
4. Anti Friction latch bolt—300 and 400 Series.
5. Adjustable bevel fronts.
6. Armored fronts all Series.
7. Most locks fully reversible.

200
300
400 Series

GENERAL INFORMATION



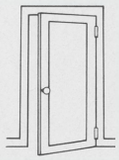
Hinges on left—opens inward
For handed locks, specify LH



Hinges on right—opens inward
For handed locks, specify RH



Hinges on left—opens outward
For handed locks, specify LHR



Hinges on right—opens outward
For handed locks, specify RHR

GENERAL INFORMATION: Hands of Doors—Face the Outside of the Door to Determine its Hand.

The outside is the street side of an entrance door and the corridor side of a room door. The outside of a communicating door is the side opposite the hinges.

HOW TO ORDER — EXAMPLE

Specify Function (Cat. No.)	360DB
Specify Design	Regent
Specify Finish	26D
Specify Hand	RH
Specify Fastenings	TMS
Specify Door Thickness	1-3/4"
Specify Wrought Box Strike if required	WBX
Specify Special Strikes other than Standard	1-1/2" Curved Strike
Specify Keying required	MK, GMK, GGMK, etc.

COMPOSITE EXAMPLE

1—No. 360DB Regent 26D RH x TMS x 1-3/4" door x WBX x 1-1/2" Curved Strike x GMK.

OPTIONAL FEATURES

Rabbeted Fronts and Strikes: Available on 300 and 400 Series for 1/2" Rabbet. Not reversible; specify hand. Specify by suffix "RAB" to Catalog Number; i.e., 300S RAB-Right Hand.

Rounded Fronts and Strikes: Available on 300 Series Deadlocks to 2-1/4" Radius. Specify by suffix "ROFS" for rounded front and strike. Use "ROF" for rounded front only; i.e., 392B ROFS or 392B ROF.

Spanner Head Screws: Available for institutional projects, when required.

Single Trim Attachments: Special lock case studs are available for attaching trim to one side of the door only. No. 300-90 for Hollow Metal Doors. No. 300-90A for Wood Doors.

AMERICAN STANDARD SPECIFICATION FOR DOOR AND FRAME PREPARATION A115-1959

All 300 and 400 Series Locksets (except thru-bolts) conform to A.S.A. Spec. A115.1-1959 which covers hollow metal door preparation for mortise locks in doors not less than 1-3/4" thick and hollow metal frame preparation for strikes in frames for doors not less than 1-3/4" thick.

All 200 Series Locksets are regularly supplied with a standard A.S.A. strike to conform to A115.1-1959 for hollow metal frame preparation.

200 Series Locksets do not conform to A115.1-1959 for hollow metal door preparation.

RADIATION RESISTANT LOCK CASES

Challenger specializes in providing the proper radiation reduction trim required for the exacting project.

A special lead formula is used to wrap the lock case. For specialized applications contact Challenger's engineering staff.

UNDERWRITERS' LABORATORIES LISTING

No. 300 and 400 Series Locksets have been listed by Underwriters' Laboratories covering Single Point locks or latches equipped with 1/2", 5/8" and 3/4" latch bolts for Class A, B, C, D and E locations, for use in hollow metal, metal clad (kalamein), composite (with steel coverings) and sheet metal doors of the flush and panelled designs.

Locks with 1/2", 5/8" and 3/4" throw are listed by Underwriters' for single swing doors not exceeding 4 feet wide, 8 feet high and for doors swinging in pairs not exceeding 8 feet in width or height depending on the specified Underwriters' listing granted to the door manufacturers. Refer to "NBHA Handbook, HARDWARE FOR LABELED FIRE DOORS A.I.A. File No. 27."

The Underwriters' listing does not approve locks with rabbeted fronts, locks with dead bolt only or locks with a latch bolt holdback feature.

FINISHES

When ordering specify finish by US symbol where US symbol is given. Example: US10B.

US3	Bright Brass	US26	Bright Chrome
US4	Dull Brass	US26D	Dull Chrome
US10	Dull Bronze	US28	Anodized Aluminum
US10B	Dull Bronze, Oxidized and Oil Rubbed	US32	Bright Stainless Steel
		US32D	Dull Stainless Steel

GUARANTEE

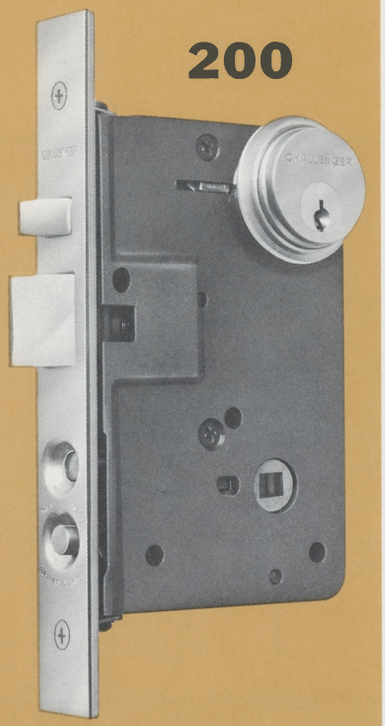
With years of service in the field, the 200, 300 and 400 locksets are fully covered by the customary CHALLENGER GUARANTEE against defect in material and workmanship. Only when proper lock function is selected and lock is correctly installed does this guarantee apply.

PACKING

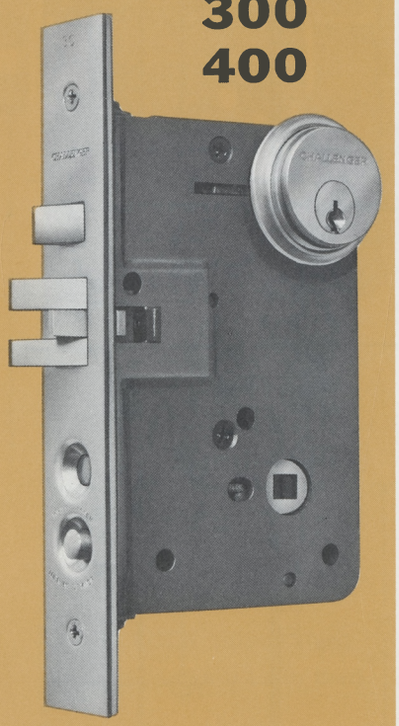
Mortise lock and trim items are completely assembled at the factory ready for installation. Screws, strike, template, and two keys are included with each lock. Special tools are included when necessary. Locks are packed one to a shelf box; warehouse case quantities—six boxes to shipping carton.

200
300
Series 400

SPECIFICATIONS



200



300
400

GENERAL SPECIFICATIONS

The Challenger 200, 300 and 400 Series Locksets are available in all standard lock operations. All operations are made in one standard size case with the same backset. All locks have an adjustable front with an armor plate for added security.

Knobs, roses, escutcheons and other exposed parts are of either brass, bronze, aluminum, stainless steel, or wood and may be obtained in any of the specified finishes.

200 SERIES

Door Thickness: Adjustable for doors 1-3/8" to 2-1/4" thick. Can be furnished for thicker doors at additional cost.
Case: Cast iron Japanned 5-3/4" x 3-7/8" x 3/4".
Front: Armored wrought brass or bronze 1" x 8". Adjustable bevel flat to 1/8" in 2". Most functions reversible.
Strike: Wrought brass, bronze or stainless steel 4-7/8" x 1-1/4".
Backset: 2-3/4".
Latch Bolt: Cast brass, 1" x 5/8" x 1/2" throw.
Deadbolt: Cast brass, 1-1/8" x 1/2" x 1/2" throw.
Hubs: Cast brass for 5/16" spindle.
Cylinders: Brass, type "B," length to suit door thickness and trim.
Springs: Compression and torsion, easy latch action, firm knob action.
Meets the requirements of FF-H-106a, Series 85

300 SERIES

Door Thickness: Adjustable for doors 1-3/4" to 2-1/4" thick. Can be furnished for thicker doors at additional cost.
Case: Cast iron, Japanned 5-3/4" x 3-7/8" x 3/4".
Front: Armored wrought brass or bronze 1-1/4" x 8". Adjustable bevel flat to 1/8" in 2". Most functions reversible. Rabbeted and rounded fronts and strikes available at additional price on certain functions.
Strike: Wrought brass, bronze or stainless steel 4-7/8" x 1-1/4".
Backset: 2-3/4".
Latch Bolt: Brass, anti-friction, 1" x 5/8" x 5/8" throw.
Deadbolt: Forged brass 1-1/8" x 1/2" x 1/2" throw. Hardened steel pins available at additional price.
Hubs: Forged brass for 5/16" spindle.
Cylinders: Brass, type "B," length to suit door thickness and trim. "BH" for hold back functions. "BI" for 372 functions.
Springs: Compression and torsion, easy latch action, firm knob action.
Meets the requirements of FF-H-106a, Series 86

400 SERIES

Door Thickness: Adjustable for doors 1-3/4" to 2-1/4" thick. Can be furnished for thicker doors at additional cost.
Case: Cast iron, Japanned 5-3/4" x 3-7/8" x 3/4".
Front: Armored, wrought brass or bronze 1-1/4" x 8". Adjustable bevel flat to 1/8" in 2". Most functions reversible. Rabbeted fronts and strikes available at additional price.
Strike: Wrought brass or bronze 4-7/8" x 1-1/4".
Backset: 2-3/4".
Latch Bolt: Brass, anti-friction 1" x 5/8" x 3/4" throw.
Hubs: Cast brass for 5/16" spindle.
Cylinders: Brass, type "B," length to suit door thickness. "BH" for hold back functions.
Springs: Compression and lever, easy latch action, firm knob action.
Meets the requirements of FF-H-106a, Series 87

CHALLENGER 200 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a TYPE 85, AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
85A	263B
85B	255B
85C	282B
85D	260SB
85DW	290SB
85E	260DB
85EW	290DB

CHALLENGER 300 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a TYPE 86, AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
86A	363B
86B	355B
86C	382B
86D	360SB
86DW	390SB
86E	360DB
86EW	390DB
86G	371DB
86H	372B
86J	380DB
86L	310
86M	331
86N	300S
86P	393B
86S	394B
86T	392B

CHALLENGER 400 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a, TYPE 87, AS FOLLOWS:

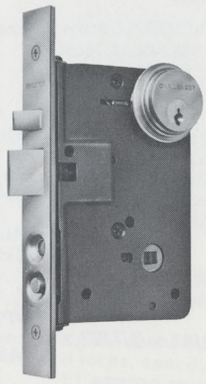
TYPE	CHALLENGER CATALOG NO.
87E	460DB 3/4
87G	471DB 3/4
87N	400S 3/4

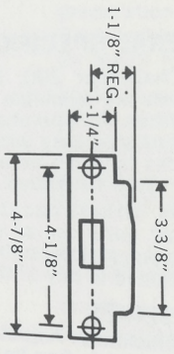
200
300
400 Series

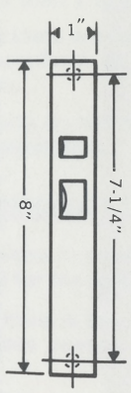
SPECIFICATIONS *(cont'd)*

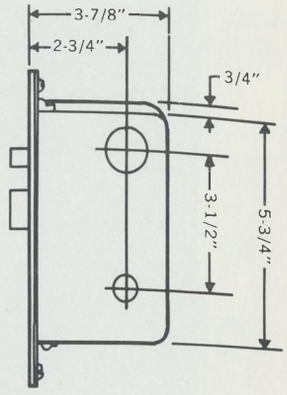
200

For Doors—1 3/8" or 1 3/4" (unless otherwise specified) Latch Bolt—Plain 1/2" throw only.



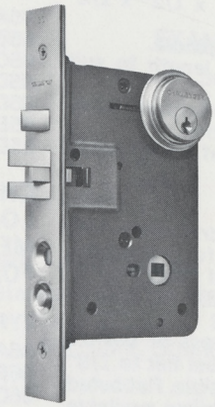


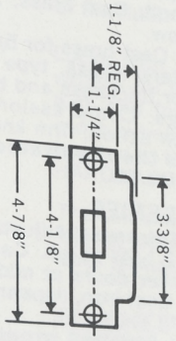


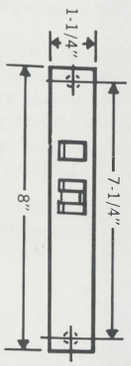


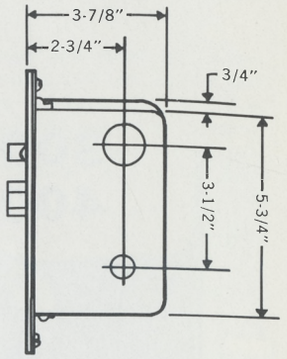
300—400

For Doors—1 3/4" (unless otherwise specified) Latch Bolt—Antifriction type, 5/8" or 3/4" throw, as specified in lock function, for all knob or lever handle locksets. Plain latch, 1/2" throw only for all entrance handle locksets.



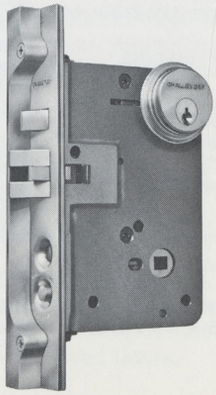


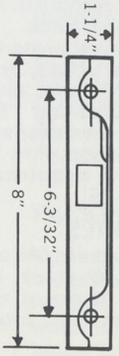


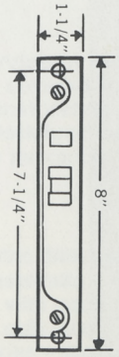


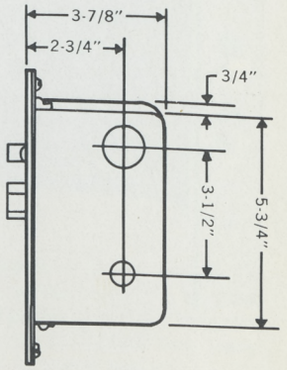
300—400

Available with Rabbeted Fronts and Strikes. Not reversible, specify hand.



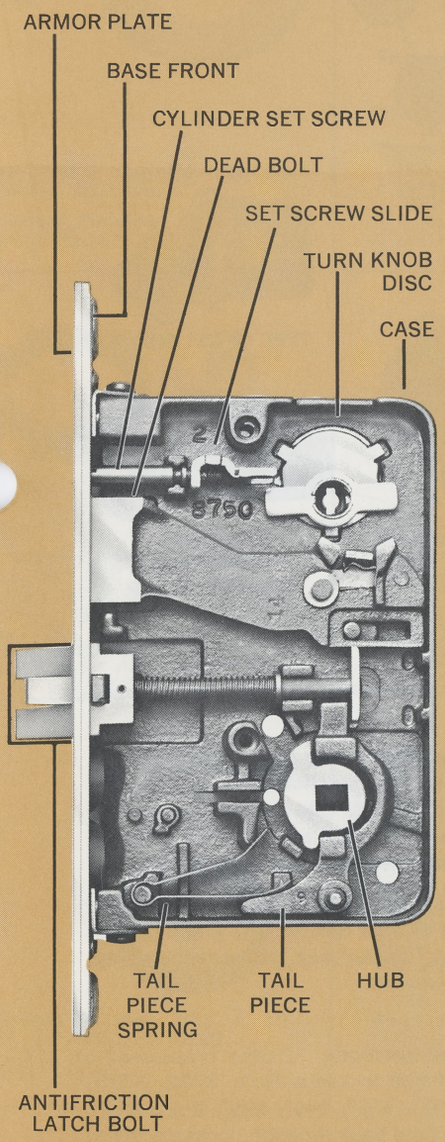






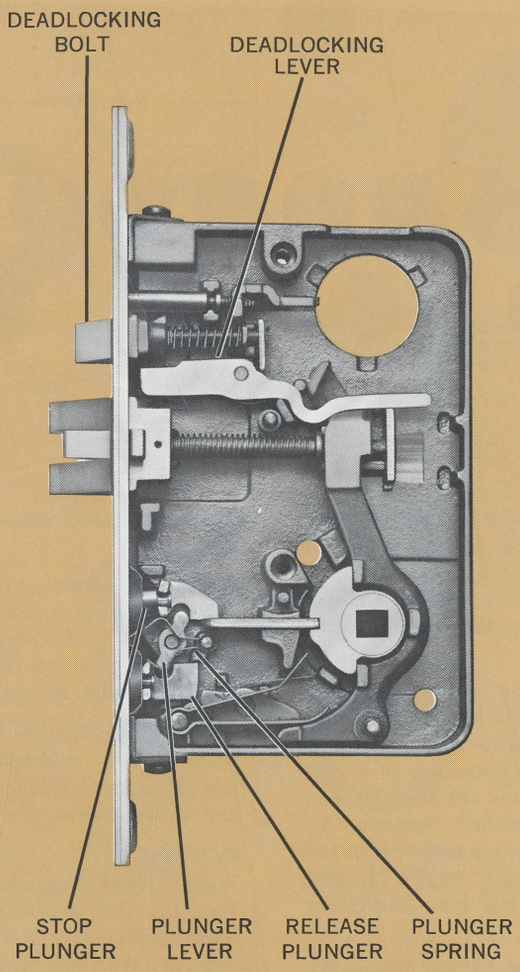
200
300
Series 400

LOCK CONSTRUCTION

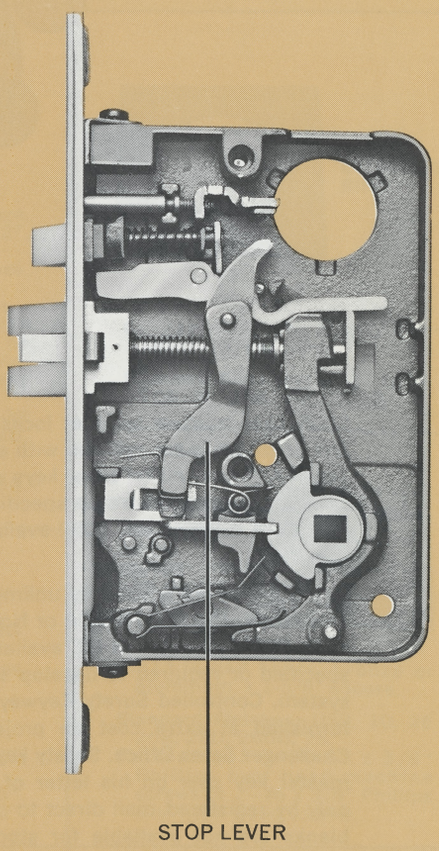


355B LOCK (illustrated)

255B LOCK (Plain Latch Bolt)



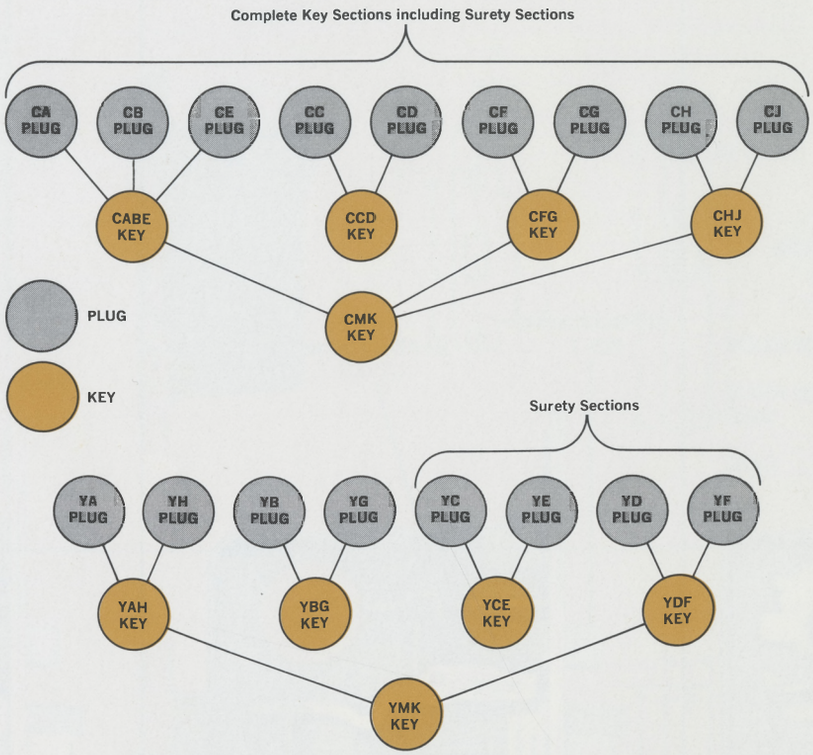
360DB LOCK

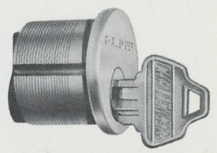


380DB LOCK

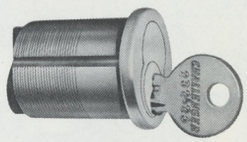
200
300
400 Series

KEYING AND CYLINDERS





TYPE B CYLINDER



TYPE 2062 REMOVABLE CORE CYLINDER

Challenger mortise cylinder locks are provided with a .510" five or six pin brass cylinder with either No. 1015CA (5 pin) or 1016CA (6 pin) nickel silver keys as required. Type B Cylinder is regular unless otherwise specified in lock function. Removable Core cylinder No. 2062 available and furnished when so specified.

Key changes are practically unlimited. Can be keyed with any locks using the No. 1015CA or No. 1016CA key. Key way sections CB, CC, CD, and CE available and furnished when so specified or required to develop security necessary in keying system. Controlled Surety Keyway Sections are available and furnished at extra cost on projects deemed necessary by Challenger Sales Office. Surety key blanks are sold only to the master key user on his letter of authorization and shipped only by registered mail direct to master key user. Surety key blanks are not available for stock.

Keying arrangements can be furnished as follows: Keyed Different (KD)—Keyed Alike (KA)—Master-Keyed (MK)—Grand Master-Keyed (GMK)—Construction Master-Keying (CMK or CGMK)—Hotel Keying (as specified)—Keyed to Pass (Maison).

Ordinary Master-Key System: Each lock is operated by its own individual key which will not operate any other lock in the system. All locks in the system can be operated by the master-key.

Grand Master-Key System: Each lock is operated by its own individual key as in the ordinary master-key system. Locks are separated into two or more groups, each group being operated by its own master-key—all groups are operated by the grand master-key.

Construction Master-Key System: During construction entry is made with a construction key. When construction is complete a special key is inserted and rotated. This action automatically re-aligns the cylinder so that the construction key will not operate the cylinder. All authorized keys will now operate.

Hotel Keying: Can be set up as required, i.e.; Guest Rooms keyed different and subject to floor master key, grand master key, emergency master key, display key, housekeepers key, and shut-out key.

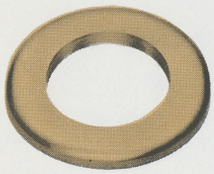
Cylinders:
Type B: Used in all standard functions.
Type BI: Used in hotel function locksets, No's. 372B, 373B. Lengths: 1", 1⅛", 1¼", 1⅜", 1½", 1⅝", 1¾", 2⅛", 2½".
Type BH: With lazy cam for hold back function, locksets, No's. 260DB, 360DB, 260SB, 360SB, 460DB ¾, 271DB, 371DB, 271SB, 371SB, 471DB ¾, 290DB, 290SB, 390SB, 390DB.

Removable Core Cylinder: No's. 2062 can be supplied when ordered. The No. 2062 Removable Core Cylinder uses a No. 2060 Core Assembly which is interchangeable in the Challenger No. 1900 Series Heavy Duty Cylindrical Locks and the No. 1500 and 1600 Series Heavy Duty Mono Locks, where a 6 pin system is used. Not available in hotel function keyed locksets.

Lengths: 1½"—1⅝"—1¾".

TRIM ACCESSORIES

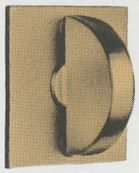
1085R CYLINDER RING



Cast brass or bronze, 2-1/16″ diameter, 3/16″ thick.

Standard Finishes: US3, 4, 10, 10B, 26, 26B, 26D, 26DB.

2603S THUMB TURN ASSEMBLY with 3/32″ x 9/32″ flat tail piece



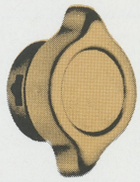
Turn: Forged brass, bronze or aluminum, 5/16″ x 1-7/16″ x 7/8″ projection.
Plate: .081″ forged brass, bronze or aluminum 1-5/8″ square.
Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28.
Fastenings: 2 #6-32 x 3/8″ Phillips oval head machine screws, or 2 #6 x 3/8″ Phillips oval head wood screws.

2616 THUMB TURN with 3/32″ x 9/32″ flat tail piece.

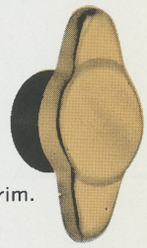


Forged brass, bronze or aluminum, 5/16″ x 1-7/16″ x 7/8″ projection.

Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28.



CLOSET TURNS
8034 for Wrought Trim.
9570 for Forged Trim.
Wrought brass, 1-1/2″ projection.



Finishes: US3, 10, 26, 26B, 26D, 26DB.



1080 ADJUSTABLE RING Wrought brass or bronze.

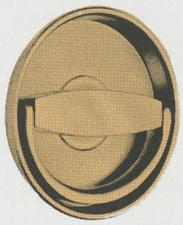
Standard Finishes: US3, 4, 10, 26, 26B, 26D, 26DB.
1080-1 inner ring and 1080-2 outer ring adjusts from 11/32″ to 7/16″.
1080-1 inner ring—7/32″.
1080-2 outer ring—adjusts from 1/8″ to 7/32″.



1083 ADJUSTABLE RING Wrought brass or bronze.

Standard Finishes: US3, 10, 26, 26B, 26D, 26DB.
Ring: 1083-3/16 adjusts from 7/32″ (.22″) to 19/64″ (.30″).
1083-1/4 adjusts from 17/64″ (.26″) to 23/64″ (.36″).
1083-5/16 adjusts from 19/64″ (.30″) to 27/64″ (.42″).

300-33 FLUSH CUP PULL



Cup: Wrought brass or bronze, 3″ diameter, depth 13/32″, 15/32″ to back of flange.
Drop Ring: Cast brass, or bronze, 5/16″ spindle.
Minimum Door Thickness—1-3/4″. Can be used with Challenger "thru-bolt" trim on opposite side of door, or individually, or in pairs by attaching to lock case studs in case.
Fastenings: Attached with 2 #8-32 x 1/2″ Phillips oval head, undercut machine screws.

Standard Finishes: US10, 26B, 26D, 26DB.



1085H CYLINDER RING

Forged brass or bronze, 2″ square, 3/16″ thick.

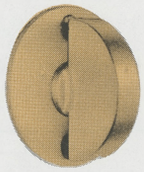
Standard Finishes: US3, 4, 10, 10B, 26, 26B, 26D, 26DB.

1085E RECESSED CYLINDER RING Solid brass, bronze, or aluminum.



Standard Finishes: US3, 4, 10, 26, 26B, 26D, 26DB, 28.
Heights (to Shoulder): 5/32″, 9/32″, 15/32″.

2603 THUMB TURN ASSEMBLY with 3/32″ x 9/32″ flat tail piece.



Turn: Forged brass, bronze or aluminum, 5/16″ x 1-7/16″ x 7/8″ projection.
Plate: .081″ forged brass, bronze or aluminum 1-5/8″ diameter.
Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28.
Fastenings: 2 #6-32 x 3/8″ Phillips oval head machine screws, or 2 #6 x 3/8″ Phillips oval head wood screws.



1082 BLOCKING RING Solid brass, bronze.

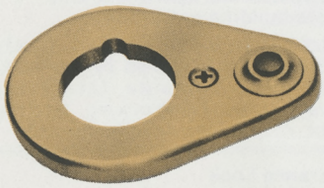
Standard Finishes: US3, 4, 10, 26, 26B, 26D, 26DB.
Heights: 1/16″, 1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″.

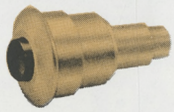
300-102S EMERGENCY KEY PLATE



.081″ forged brass, bronze or aluminum, x 1-5/8″ square.

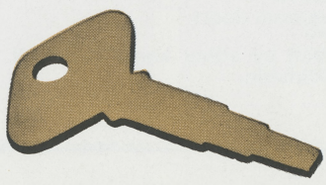
Standard Finishes: US3, 10, 26 26B, 26D, 26DB, 28.
Fastenings: 2—#6-32 x 3/8″ Phillips oval head machine screws or 2—#6 x 3/8″ Phillips oval head wood screws.





INDICATOR AND PLATE

Used with 372 function sectional trim mortise hotel lock where rose does not exceed 3″ square or diameter.
1085-372 cast brass or bronze. 2-1/4″ x 3-1/8″.
Standard Finishes: US3, 4, 10, 26, 26B, 26D, 26DB.
Fastenings: 1—#6-32 x 5/8″ Phillips oval head machine screw or 1—#6 x 5/8″ Phillips oval head wood screw.
372-5 indicator button only, for use with escutcheon trim.



1020 EMERGENCY KEY used on lock 210, 310.

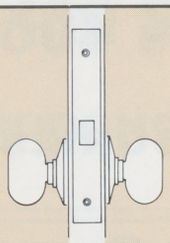
Wrought steel, 1-7/16″ x 2-1/2″ long.



300-102 EMERGENCY KEY PLATE
.081″ forged brass, bronze or aluminum, x 1-5/8″ diameter.

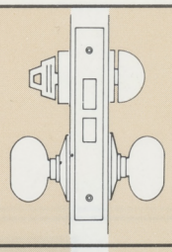
Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28.
Fastenings: 2—#6-32 x 3/8″ Phillips oval head machine screws or 2—#6 x 3/8″ Phillips oval head wood screws.

200/300/400 Series
FUNCTIONS



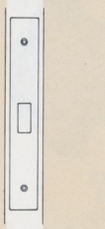
Passage Latch
200S, 300S (86N), 400S ¾ (87N)
for doors not
required
to be locked

Latch bolt by either knob at all times.



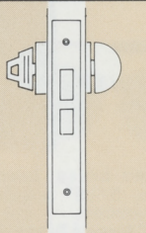
Entrance Lock
255B (85B), 355B (86B)
for entrance doors

Latch bolt by either knob. Deadbolt by key outside or thumb turn inside.



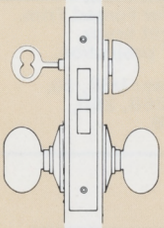
Hospital Latch
300RL
for hospital doors

Roller latch by push or pull of door.



Hospital Door Lock
355B RL
for hospital doors

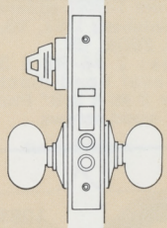
Roller latch by push or pull of door. Deadbolt by key outside or thumb turn inside.



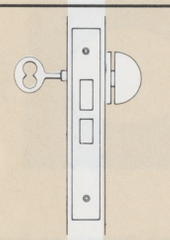
Privacy Lock
210, 310 (86L)

for bathroom, bedroom or other doors requiring privacy

Latch bolt by either knob. Deadbolt is locked by thumb turn inside. In case of emergency, unlocking by emergency key.

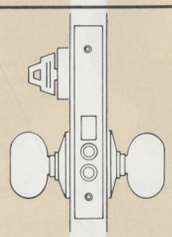


Office Lock
260DB (85E), 360DB (86E),
460DB ¾ (87E)
for office doors
Latch bolt by either knob except when outside knob is locked by stops in face, then by key outside. Inside knob always free. Deadlocking latchbolt.



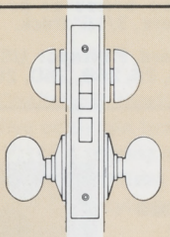
Hospital Privacy Latch
310RL
for hospital
bathroom doors

Roller latch by push or pull of door. Deadbolt is locked by thumb turn inside. In case of emergency, unlocking by emergency key.



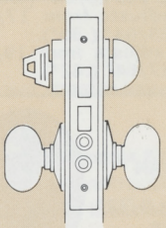
Office Lock
260SB (85D), 360SB (86D)
for office doors

Latch bolt by either knob except when outside knob is locked by stop in face, then by key outside. Inside knob always free.



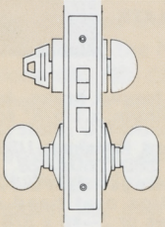
Communicating Lock
231, 331 (86M)
for connecting doors

Latch bolt by either knob. Two independent deadbolts by thumb turns both sides. Doors can be opened only when both deadbolts are in unlocked position. Not recommended for doors in rooms without another entrance.



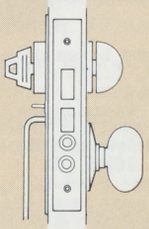
Entrance Lock
263B (85A), 363B (86A)

Latch bolt by either knob except when outside knob is locked by stop in face, then by key outside. Deadbolt by key outside or thumb turn inside.



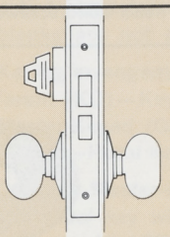
Communicating Lock
251B, 351B
for connecting doors

Latch bolt by either knob. Two independent deadbolts, by key one side, thumb turn other side. Door can be opened only when both deadbolts are in unlocked position. Not recommended for doors in rooms without another entrance.



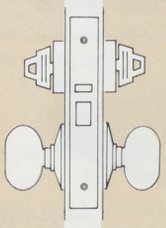
Entrance Handle Lock
H363B (122A)
for entrance doors

Latch bolt by thumb piece outside and knob inside except when thumb piece is locked by stop in face, then by key outside. Deadbolt by key outside, thumb turn inside.



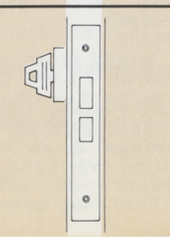
Storeroom Lock
254B, 354B
for storeroom doors

Latch bolt by either knob. Deadbolt by key outside.



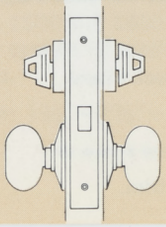
Entrance Lock
271DB, 371DB (86G),
471DB ¾ (87G)
For vestibules, apartment and office building entrances

Latchbolt by either knob except when outside knob is locked by key inside, then by key outside. Inside knob always free. Deadlocking latchbolt. (Not reversible; specify hand.)



Hospital Door Lock
354B RL
for hospital doors

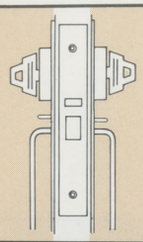
Roller latch by push or pull of door. Deadbolt by key outside.



Entrance Lock
271SB 371SB
For vestibules, office building, restrooms or apartment entrance doors

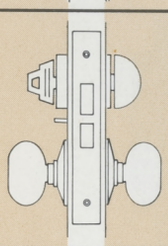
Latchbolt by either knob except when outside knob is locked by key inside, then by key outside. Inside knob always free. (Not reversible; specify hand.)

Series 200/300/400
FUNCTIONS

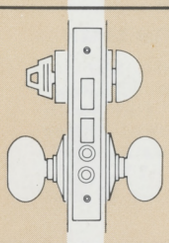


Entrance Handle Lock
H371DB(123B)
for vestibules, apartments and office building entrances

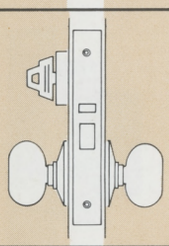
Latch bolt by either thumb piece. except when outside thumb piece is locked by key inside, then by key outside. Inside thumb piece always free. Deadlocking latch bolt.



Hotel Lockset
372B (86H)
for hotel guest room doors
Outside knob rigid. Latchbolt by inside knob, guest, maid or master key except when deadbolt is projected by thumb turn shutting out all except display and emergency key. Occupancy indicator. (Not reversible.)

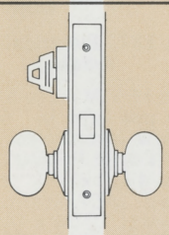


Apartment Lock
373B
For apartments, conference rooms dark rooms or other areas where uninterrupted privacy is desired
Latchbolt by either knob except when outside knob is locked by stops in face, then by key outside except when deadbolt is projected by thumb turn inside shutting out all keys.



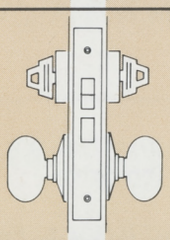
Classroom Lock
280DB, 380DB (86S)
for classroom or utility room doors

Latch bolt by either knob except when outside knob is locked by key outside. Inside knob always free. Deadlocking latch bolt.



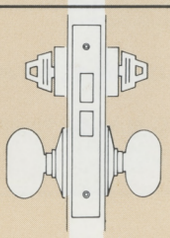
Classroom Lock
280SB, 380SB
for utility room doors

Latch bolt by either knob except when outside knob is locked by key outside. Inside knob always free.



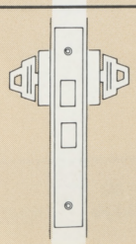
Communicating Lock
281B 381B
for connecting doors

Latch bolt by either knob. Two independent deadbolts by key both sides. Door can be opened only when both deadbolts are in unlocked position. Not recommended for doors in rooms without another entrance.



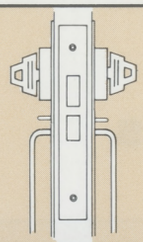
Store Door Lock
282B (85C), 382B (86C)
for store entrance or communicating doors

Latch bolt by either knob. Deadbolt by key from either side.



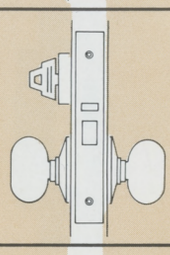
Hospital Door Lock
382B RL
for hospital doors

Roller latch by push or pull of door. Deadbolt by key from either side.



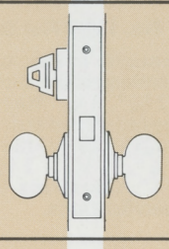
Store Door
Handle Lock
H382B (123A)
for store doors

Latch bolt by either thumb piece. Deadbolt by key from either side.



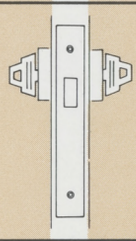
Store Room Lock
290DB (85EW) 390DB (86EW)
For store room or exit doors

Latchbolt by key outside or by inside knob at all times. Outside knob always rigid. Inside knob always free. Deadlocking latchbolt.



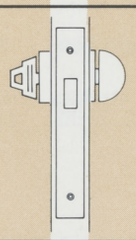
Store Room Lock
290SB (85DW), 390SB (86DW)
For store room doors

Latchbolt by key outside or by inside knob at all times. Outside knob always rigid. Inside knob always free.



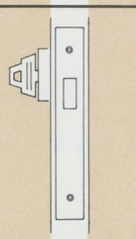
Double Cylinder Deadlock
392B (86T)

Deadbolt by key from either side.



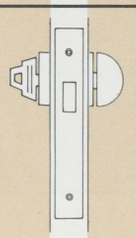
Deadlock, with Thumb Turn
393B (86P)

Deadbolt by key outside, or thumb turn inside.



Deadlock
394B (86S)

Deadbolt by key outside. No inside operation.



Safety Deadlock
395B

Deadbolt by key from outside. Thumb turn inside will withdraw, but not project deadbolt.



Door Bolt
396

Deadbolt by thumb turn inside. No outside operation.

200
300
400 Series

STRIKES, SCREWS



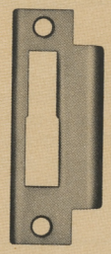
No. 1356 Mod. Round Front Strike

Cast brass or bronze. Size 5¾" x 1¼" with 2¼" radius.



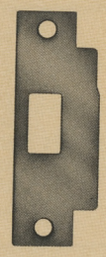
No. 1356 Flat Strike

Wrought brass, bronze, stainless steel. Size 4⅞" x 1¼". 1⅛" flat lip to center standard. Other lengths available—⅞", 1¼", 1½", 1¾", 2" 2½". Conforms to ASA specifications.



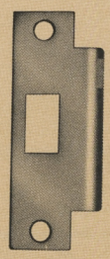
No. 1356 Curved Lip Strike

Wrought brass, bronze, stainless steel. Size 4⅞" x 1¼". 1¼" curved lip to center standard. Other lengths available—1½", 1¾", 2", 2¼". Conforms to ASA specifications.



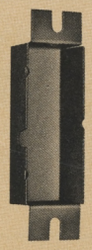
No. 1357 Flat Strike

Wrought brass, bronze, stainless steel. Size 4⅞" x 1¼". 1⅛" flat lip to center standard. Other lengths available—⅞", 1¼", 1½", 1¾", 2", 2½". Conforms to ASA



No. 1357 Curved Lip Strike

Wrought brass, bronze, stainless steel. Size 4⅞" x 1¼". 1¼" curved lip to center standard. Other lengths available—1½", 1¾", 2", 2¼". Conforms to ASA specifications.



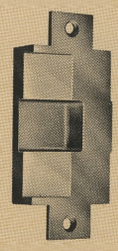
No. 1359 Wrought Box

1⅛" deep for strikes 1350, 1351, 1352, 1356, 1357.



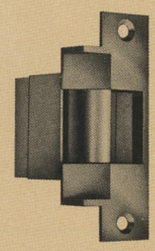
No. 1361 Wrought Box

13/16" deep for strikes 1350, 1351, 1352, 1356, 1357.



No. 1365 Open Back 1357.

Cast brass or bronze. Size 5¾" x 1¼". Specify door thickness 1¾", 2", 2¼", or 2½".

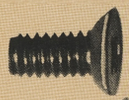


No. 1372 Electrical Latch Release

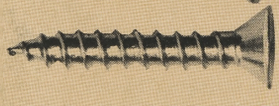
8 to 16 V AC, 3 to 6 V DC. For use with ½" or ¾" throw latchbolts. Face and Cover: Forged Brass. Size 4⅞" x 1¼" x 3⅜" deep. (ASA standard.) Screws: 12-24 x ½" machine, or 12 x 1¼" wood.



No. 2-300-80, 8-32 x 3/16" F.H.M.S., Armored Front, Attaching Screw



No. 2-300-69, 12-24 x 1/2" F.H.M.S., Lock Case and Strike, Attaching Screw



No. 2-300-67, 12 x 1-1/4" F.H.W.S., Lock Case and Strike, Attaching Screw



No. 2-300-92, 8-32 x 1-3/16" O.H.M.S., with "NYLOK" insert, Trim Thru Screw



No. 2-300-79, 6-32 x ⅜" O.H.M.S., Escutcheon & Thumb Turn, Attaching Screw



No. 2-300-87, 6 x 5/8" O.H.W.S., Escutcheon, Attaching Screw

No. 2-300-77, 6 x ⅜" O.H.W.S., Thumb Turn, Attaching Screw

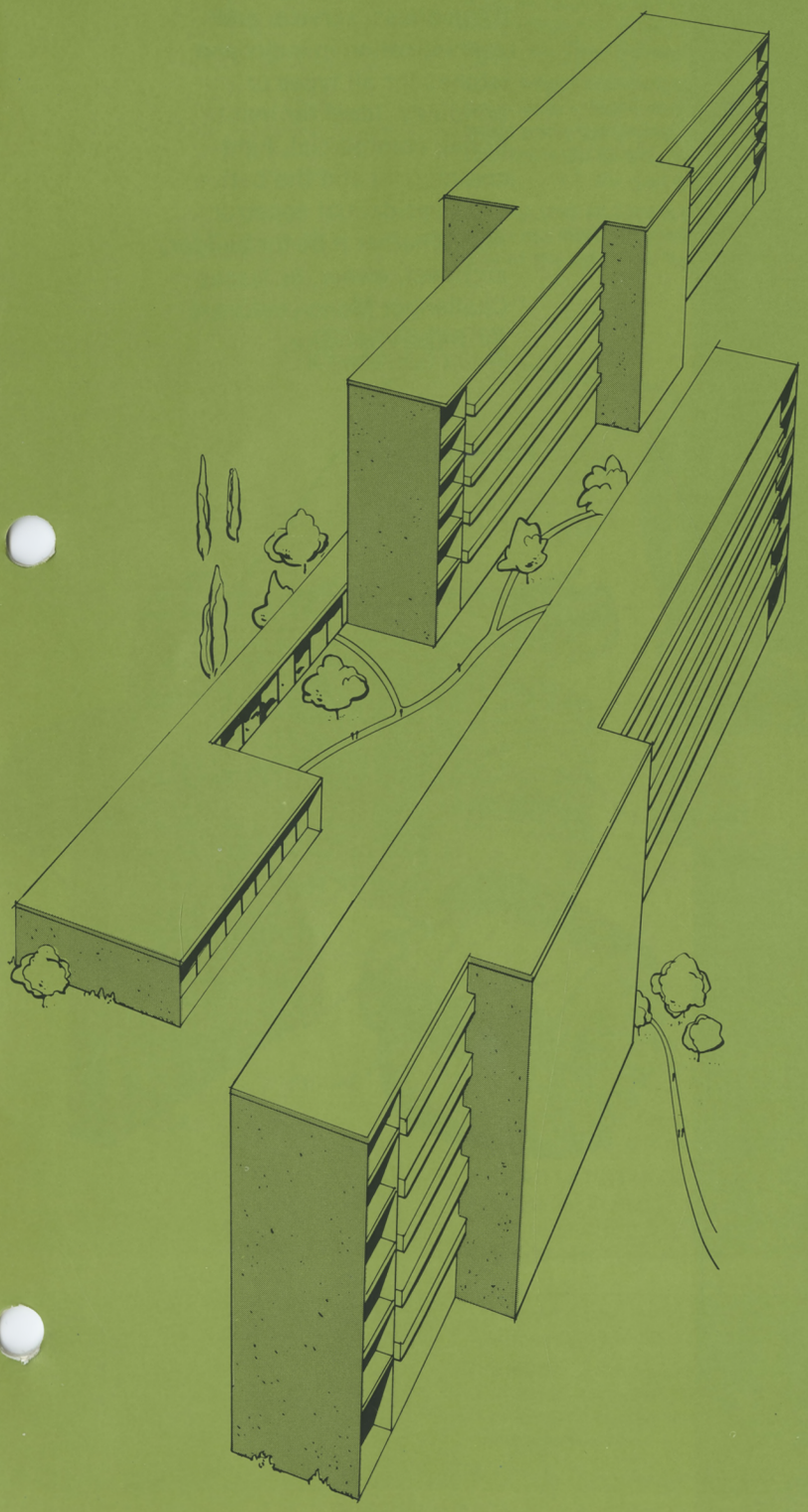
EATON YALE & TOWNE INC

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

FORM No. 300-CI/4-67/LAI/5M

PRINTED IN U.S.A.



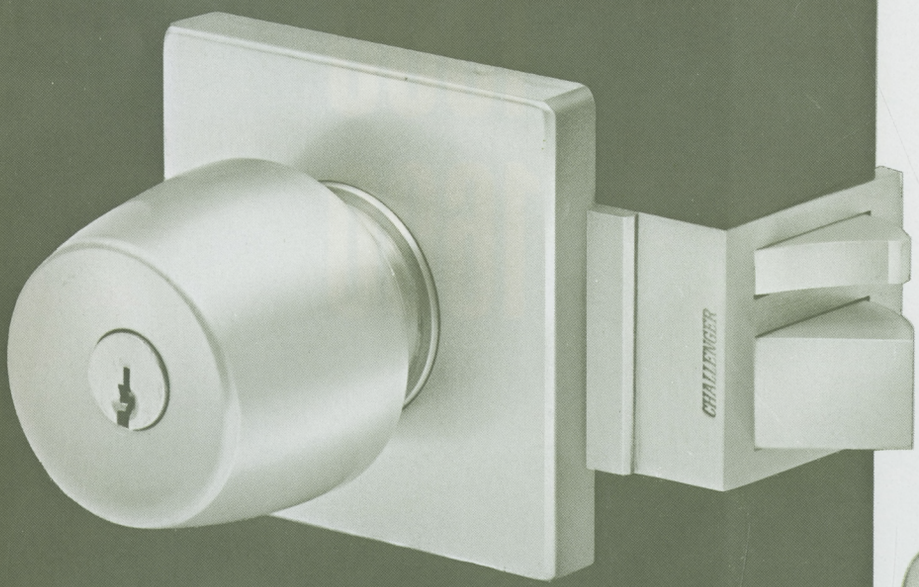
Heavy Duty Mono Locks

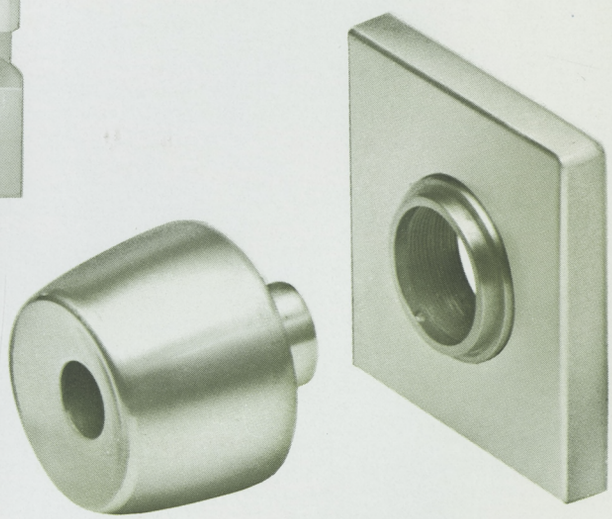
1500 1600 Series

CHALLENGER®

Catalog No. 61

Challenger Mono-Locks provide the highest possible selection for quality, ruggedness, service, and sophistication in locks and latches for all types of buildings. Ideal for institutional, commercial, light commercial and the better class residential construction. Whether it be for builder, architect, owner, or lessee Challenger Mono-Locks are for those who care.





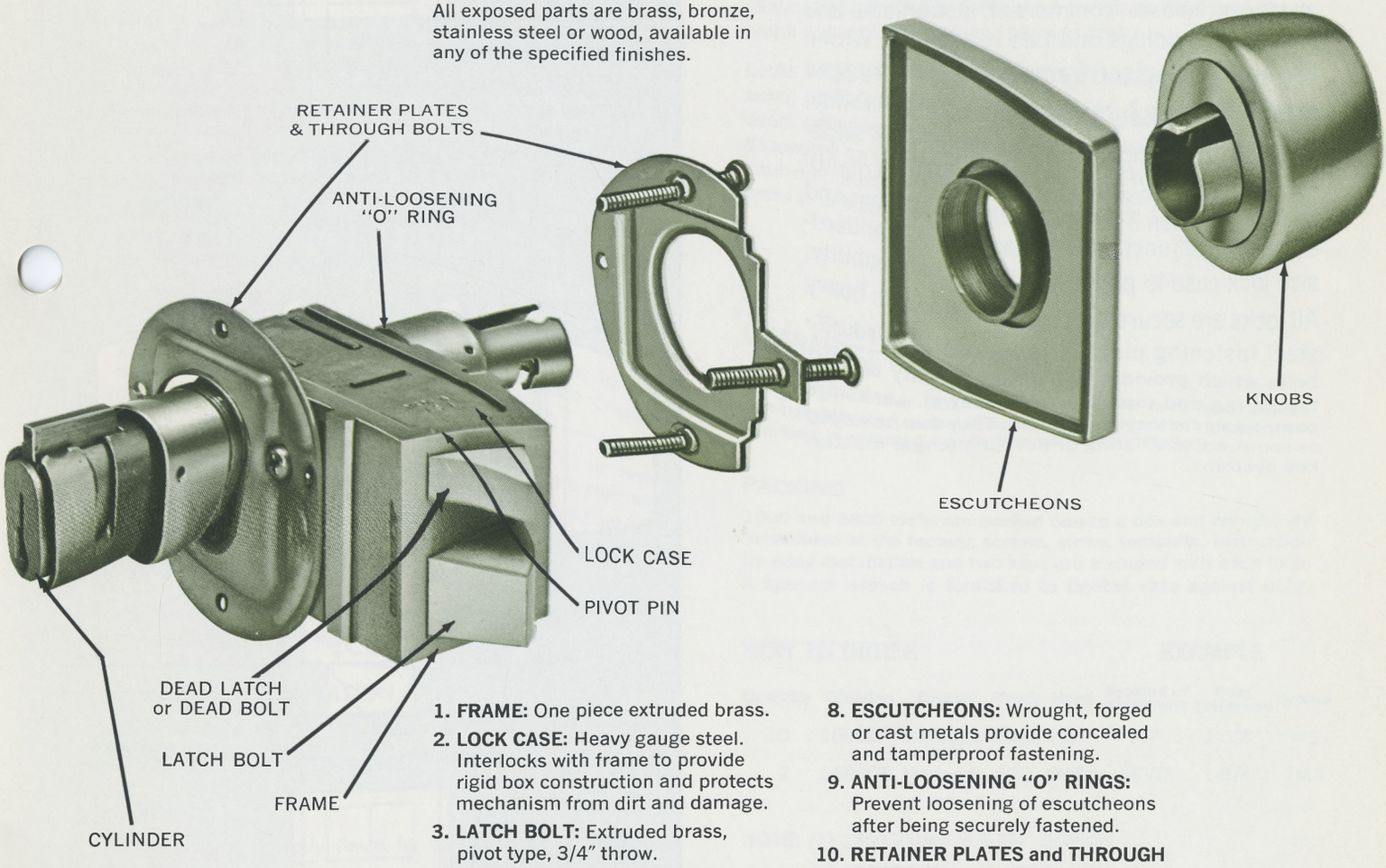
1500
Series 1600
MONO-LOCKS

CONSTRUCTION FEATURES

Challenger Heavy Duty Mono-Locks meet the requirements of Federal Specification FF-H-106a, Interim Amendment-9, dated March 24, 1964, for Type 90 and 98 locksets.

Lock frame and lock case are brass and heavy-gauge, cold-rolled steel. Steel parts are zinc-plated and dichromated to assure maximum protection from rust and corrosion.

All exposed parts are brass, bronze, stainless steel or wood, available in any of the specified finishes.

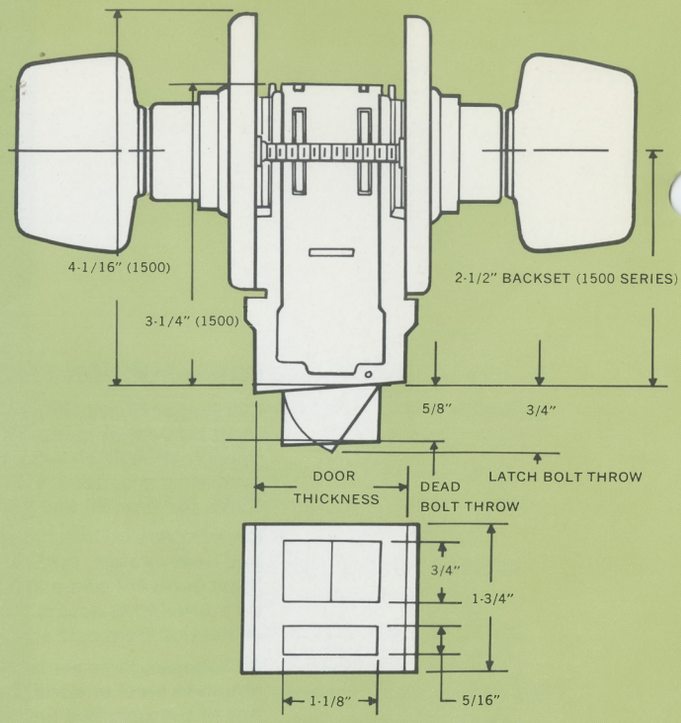


1. **FRAME:** One piece extruded brass.
2. **LOCK CASE:** Heavy gauge steel. Interlocks with frame to provide rigid box construction and protects mechanism from dirt and damage.
3. **LATCH BOLT:** Extruded brass, pivot type, 3/4" throw.
4. **DEAD LATCH or DEAD BOLT:** Extruded brass. Dead bolt 5/8" throw, 1-1/8" x 5 16".
5. **PIVOT PIN:** Stainless steel.
6. **CYLINDER:** Cylinder can be removed and replaced without removing lock from door.
7. **KNOBS: A wide variety of designs** in wood, wrought reinforced, cast or forged metals for all requirements.
8. **ESCUTCHEONS:** Wrought, forged or cast metals provide concealed and tamperproof fastening.
9. **ANTI-LOOSENING "O" RINGS:** Prevent loosening of escutcheons after being securely fastened.
10. **RETAINER PLATES and THROUGH BOLTS:** Heavy gauge steel. Lock installs without use of escutcheons as structural parts. No unsightly or vulnerable exposed screw heads. Tamperproof concealed through-bolt attachment.

1500
1600 Series

GENERAL INFORMATION

The Challenger 1500 and 1600 Series Heavy Duty Mono-Locks represent the finest locks available for heavy-duty service in schools, hospitals, apartment houses, commercial, institutional and industrial buildings and fine residences. Within the heavy one-piece frame is the most rugged mechanism to assure the maximum in durability, security, and functioning perfection. The superior materials and skilled craftsmanship of manufacture combine to provide a lifetime of wear and exposure. All functions are made in one standard-size lock case to permit total interchangeability. All locks are securely fastened to door with heavy steel fastening plates and concealed through-bolts which provides maximum security against tampering and unauthorized removal. Locks are completely factory assembled. They can be keyed as required, to existing or new Challenger master-key systems.



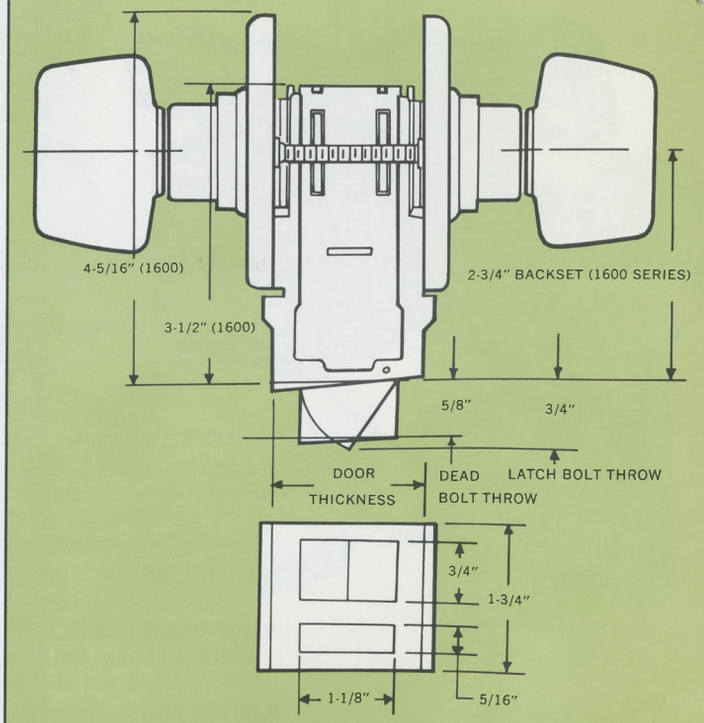
1500 Series

Bevel Front (1/8" in 2"); For 1-3/4", 2" and 2-1/4" door thickness.

Flat Front; For 1-3/8" door thickness.

Flat Front; For 1-3/4" door thickness, to order.

Lock and strike available for pair of 1/2" rabbeted 1-3/4" thick doors. (Parallel bevel only.)



1600 Series

Bevel Front (1/8" in 2"); For 1-3/4", 2", 2-1/4" and 2-1/2" door thickness.

Flat Front; For 1-3/8" door thickness.

Flat Front; For 1-3/4" door thickness, to order.

Lock and strike available for pair of 1/2" rabbeted 1-3/4" thick doors. (Parallel bevel only.)

Locks available for 2-1/2" thick doors with cast roses only.

1500
Series 1600

SPECIFICATIONS

SPECIFICATIONS

DIMENSIONS: Overall dimensions for 1500 and 1600 Series lock assemblies are shown in the illustrations. Those dimensions which vary as a result of various knob and rose designs are not shown.

FRAME: Lock mechanism totally enclosed by frame which consists of a heavy 1-3/4" "U" shaped brass extrusion and heavy wrought steel frame plates. These components interlock, thus providing a completely enclosed rigid box construction and in addition protects all internal components from dust, dirt and possible damage during installation.

LATCH BOLT: Extruded bronze, one-piece pivot hinge type with 3/4" throw.

DEAD LOCKING LATCH: Extruded Bronze. Automatically deadlocks latch bolt when door is closed. (Stainless steel dead locking latch bolt supplied in 1674DU Function only.)

DEAD BOLT: 5/8" throw, 1-1/8" x 5/16" extruded bronze. (Concealed hardened steel insert available when specified.)

ADJUSTABLE STRIKE: Brass or bronze. Conforms to A.S.A. Specifications for single doors. Strikes for double doors and electric opener see Pages No. 10 & 11 "Strikes."

HAND: Locks may be ordered for regular (R.H.) or reverse bevel (R.H.R.) and handed in the field by simple reversal of the cylinder after the lock is applied to the door. As an example: Right-hand lock may be changed to L.H. or a R.H.R. lock may be changed to a L.H.R. or vice versa.

Handle locks supplied with lever handles must be ordered handed. The above HAND note does not apply.

FEDERAL SPECIFICATION

All locks conform to FF-H-106a, INTERIM AMENDMENT-9, DATED MARCH 24, 1964, Type 90 and 98.

FINISHES

When ordering specify finish by US symbol only. Example: US32D.

US3	Bright Brass
US10	Dull Bronze
US10B	Dull Bronze, Oxidized and Oil Rubbed
US26	Bright Chrome
US26D	Dull Chrome
US32	Bright Stainless Steel
US32D	Dull Stainless Steel

UNDERWRITERS' SPECIFICATIONS

The No. 1500 and 1600 Series Locksets marked 6M on the face of the lock or latch are listed by the Underwriters' Laboratories as Single Point locks or latches with 3/4" throw latch bolt, for use on labels (A), swinging hollow metal; metal clad (Kalamein) composite (with steel coverings only) and sheet-metal doors of the flush and paneled designs.

Locks with 3/4" throw are listed by Underwriters' for single swing doors not exceeding 4 feet wide, 8 feet high and for doors swinging in pairs not exceeding 8 feet in width or height depending on the specified Underwriters' listing granted to the door manufacturers. The Underwriters' listing does not cover locks with holdback latch bolts or rabbeted fronts.

GUARANTEE

Challenger heavy duty Mono-Locks are fully guaranteed against defect in material and workmanship when proper lock function is selected and lock is correctly installed.

PACKING

1500 and 1600 locks are packed one to a box and completely assembled at the factory; screws, strike, template, instruction for easy installation and two keys are included with each lock. A spanner wrench is furnished to tighten rose against door.

HOW TO ORDER — EXAMPLE

Quantity	Function	Design	Finish	Hand	Beveled or Flat Front	Door Thickness	Screws
10	1600S	Hercules	32D	LH	F/F	1-3/8"	WS
2	1680DU	Hercules	32D	LHRB	BEV/F	1-3/4"	TMS

NOTE: (1) 1600 Series = 2-3/4" Backset

(2) 1500 Series = 2-1/2" Backset

(3) Locks for 1-3/8" thick doors furnished only with flat fronts

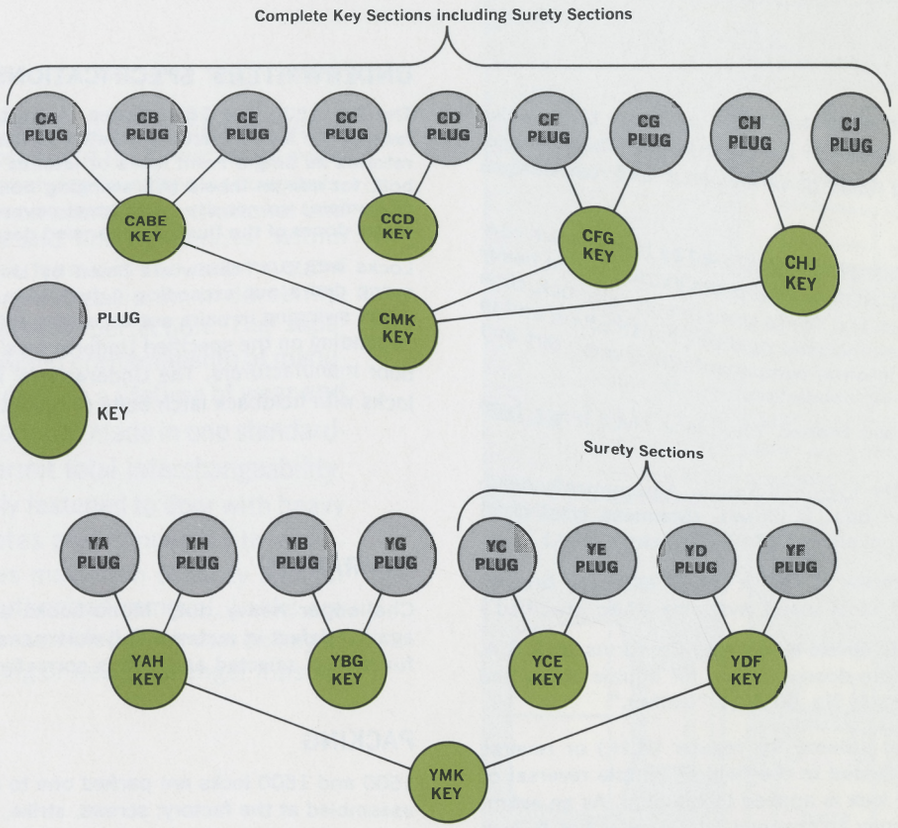
(4) Locks for 1-3/4" thick doors furnished for flat or bevelled fronts

(5) Locks for 2", 2-1/4", 2-1/2" thick doors furnished only with bevelled fronts

(6) Locks for 2-1/2" thick doors can be furnished only with cast escutcheons

1500
1600 Series

KEYING

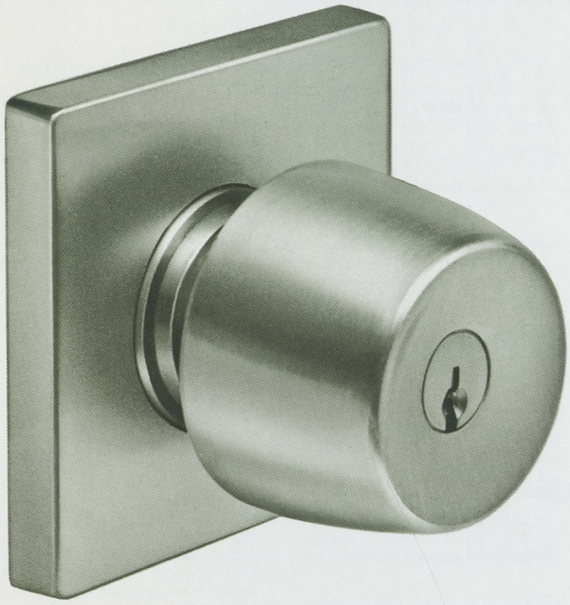


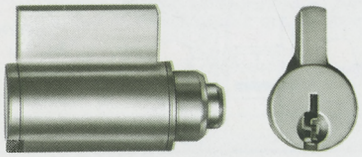
Challenger Mono-Lock cylinder locks are provided with a .510" five or six pin brass cylinder with either No. 1015CA (5 pin) or 1016CA (6 pin) nickel silver keys as required. Cylinders can be removed for resetting without removing lock from door.

Key changes are practically unlimited. Can be keyed with any locks using the No. 1015CA or No. 1016CA key. Keyway sections CB, CC, CD, and CE available and furnished when so specified or required to develop security necessary in keying system. Controlled Surety Keyway Sections are available and furnished at extra cost on projects deemed necessary by Challenger Sales Office. Surety key blanks are sold only to the masterkey user on his letter of authorization and shipped only by registered mail direct to masterkey user. Surety key blanks are not available for stock.

Keying arrangements can be furnished as follows: Keyed Different (KD)—Keyed Alike (KA)—Master-Keyed (MK) Grand Master-Keyed (GMK)—Construction Master-Keying (CMK or CGMK—Hotel Keying (as specified)—Keyed to Pass (Maison).

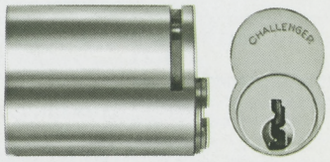
1500
Series 1600
CYLINDERS





For All Knob Designs.
TYPE U Standard.
TYPE U1 Hotel; for 1572DU, 1672DU, and 1674DU.





2060 Removable Core.
HERCULES Metal Knob Design Only.
Not available for Hotel Lock Functions 1572DU, 1672DU, and 1674DU.

MASTER KEYING

Ordinary Master-Key System: Each lock is operated by its own individual key which will not operate any other lock in the system. All locks in the system can be operated by the master-key.

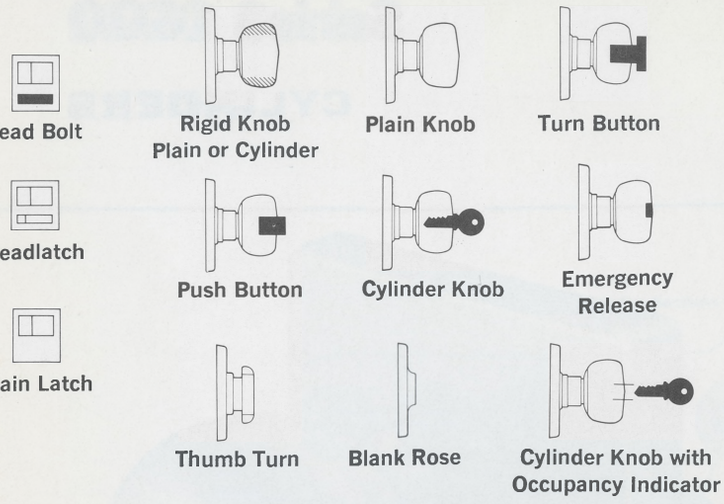
Grand Master-Key System: Each lock is operated by its own individual key as in the ordinary master-key system. Locks are separated into two or more groups, each group being operated by its own master-key—all groups are operated by the grand master-key.

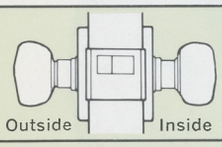
Construction Master-Key System: During construction entry is made with a construction key. When construction is complete a special key is inserted and rotated. This action automatically re-aligns the cylinder so that the construction key will not operate the cylinder. All authorized keys will now operate cylinders.

Hotel Keying: Can be set up as required, i.e., Guest Rooms keyed different and subject to floor master key, grand master key, emergency master key, display key, housekeeper's key, and shut-out key.

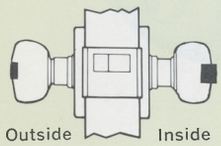
Removable Core Cylinder, assembly No. 2060, can be supplied when ordered in the Hercules design only, and is interchangeable in the Challenger No. 1900 Series Heavy Duty Cylindrical Locks and the No. 200, 300, and 400 Series Heavy Duty **Mortise** Locks, Rim Cylinders and Padlocks where a 6 pin system is used. Not available in hotel function keyed locksets.

1500/1600 Series
FUNCTIONS

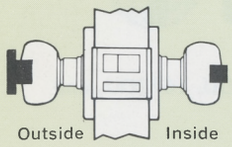




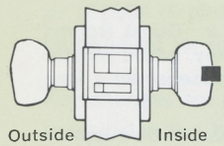
PASSAGE LATCH
1600S
For doors not required to be locked
Latch bolt by either knob at all times.



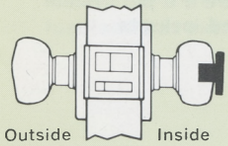
PRIVACY LOCK
1610S
For bathroom, bedroom or other doors requiring privacy.
Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob or closing door automatically releases push button. In case of emergency unlocking by emergency key, screwdriver, or coin in outside knob. Inside knob always free.



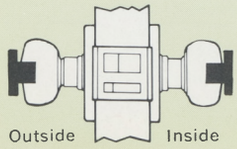
COMMUNICATING PRIVACY LOCK
1610 ST
For communicating bathroom doors
Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob, turn button in outside knob or closing door releases push button. When door is locked entrance can be gained by turn button in outside knob. Inside knob always free.



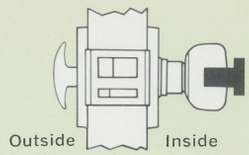
INNER OFFICE LOCK
1620D
For doors requiring locking only when the room is occupied
Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob or closing door automatically releases push button. Inside knob always free. Deadlocking latch.



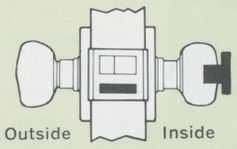
EXIT LOCK
1630D
For exit doors not requiring entrance by key.
Latch bolt by either knob except when outside knob is locked by turn button in inside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.



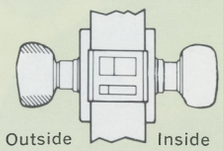
COMMUNICATING LOCK
1631D
For communicating doors
Latch bolt by either knob except when either knob is locked by turn button in opposite knob. Manual release of turn buttons. Deadlocking latch. Not recommended for doors in rooms without another entrance.



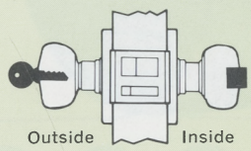
TWIN COMMUNICATING LOCK
1633D
For twin communicating doors. Without space for knob.
Latch bolt by thumb turn outside or knob inside except when thumb turn is locked by turn button in inside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.



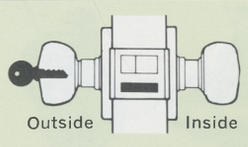
EXIT LOCK
1637
For exit doors not requiring entrance by key
Latch bolt by either knob. Deadbolt by turn button in inside knob. Manual unlocking by turn button.



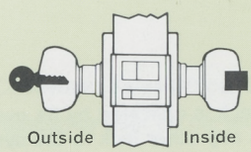
EXIT LATCH
1640D
For permanently locked exit doors.
Latch bolt by inside knob at all times. Outside knob always rigid. Deadlocking latch.



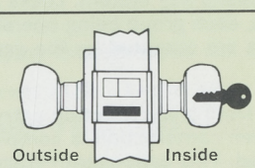
OFFICE LOCK
1650DU
For office doors
Latch bolt by either knob except when outside knob is locked by push button in inside knob, then by key in outside knob. Inside knob always free. Turning inside knob or key in outside knob automatically releases push button in inside knob. Push button does not release when closing door. Deadlocking latch.



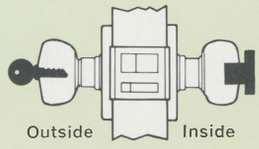
STOREROOM LOCK
1654U
For storeroom doors.
Latch bolt by either knob. Deadbolt by key outside.



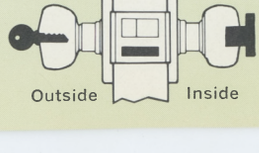
DORMITORY LOCK
1655DU
For dormitory bedroom doors or public restrooms where privacy is desired.
Latch bolt by either knob except when outside knob is locked by push button in inside knob or key in outside knob. Inside knob always free. Turning inside knob, shutting door or key in outside knob will automatically unlock and release push button. Deadlocking latch.



EXIT LOCK
1657U
For auxiliary exit doors not requiring entrance by key.
Latch bolt by either knob. Deadbolt by key in inside knob.

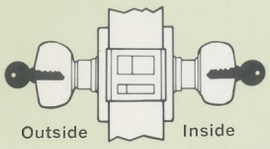


EXTERIOR LOCK
1660DU
For entrance or office doors
Latch bolt by either knob except when outside knob is locked by turn button in inside knob, then by key in outside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.



EXTERIOR LOCK
1665U
For entrance or office doors.
Latch bolt by either knob. Deadbolt by key outside or turn button inside.

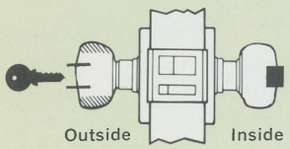
Series 1500/1600
FUNCTIONS



ENTRANCE LOCK
1671DU

For vestibules, office building restrooms, or apartment house entrance doors

Latch bolt by either knob except when outside knob is locked by a full turn of key in inside knob then by key in outside knob. Inside knob always free. Deadlocking latch.

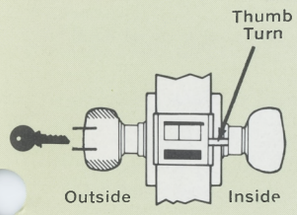


HOTEL LOCK
1672DU

For hotel guest room doors

Outside knob always rigid. Latch bolt by inside knob at all times and by all keys in outside knob except when push button in inside knob is depressed shutting out all (keys) except display and emergency key and projecting visual occupancy indicator on face of cylinder.

Turning inside knob or closing door automatically releases push button. Display or emergency key activates lockout button, shutting out all other keys. Deadlocking latch.



HOTEL LOCK
1674DU

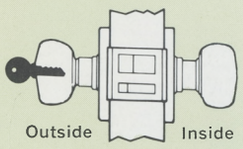
For hotel guest room doors

Outside knob always rigid. Latch bolt by inside knob at all times and by all keys in outside knob except when deadlock is projected by thumb turn shutting out all keys except display and emergency key and projecting visual occupancy indicator on face of cylinder.

Turning inside knob retracts deadbolt and latch bolt simultaneously.

Display or emergency key activates lockout feature shutting out all other keys.

Deadlocking latch and deadbolt. Available for 1¾" RH or LH doors only.



CLASSROOM LOCK
1680DU

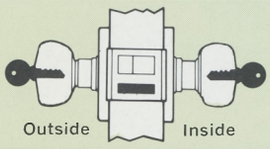
For classroom or utility room doors.

Latch bolt by either knob except when outside knob is locked by key in outside knob. Inside knob always free. Deadlocking latch.

1680DUHB

with hold back feature

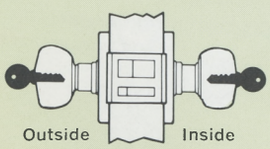
Same as above except latch bolt may be held retracted by turning outside knob until latch bolt is retracted and rotate key to locked position.



CUMMUNICATING LOCK
1681U

For communicating doors

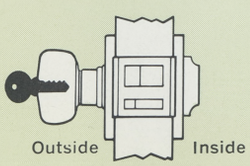
Latch bolt by either knob.
Deadbolt by key either side.



STORE DOOR LOCK
1682DU

For store entrance or communicating doors.

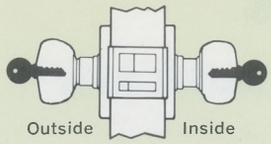
Latch bolt by either knob except when both knobs are locked simultaneously by key in either knob. Deadlocking latch.



CABINET LOCK
1684DU

For closets, cabinets or pipe shaft doors. Without space for knob.

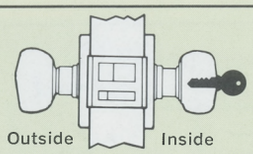
Latch bolt by knob from outside except when outside knob is locked by key in outside knob. Deadlocking latch. Not recommended for rooms without other means of egress.



COMMUNICATING LOCK
1685 DU

For communicating doors

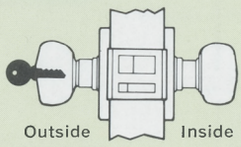
Latch bolt by either knob except when either knob is locked by key in opposite knob. Deadlocking latch. Not recommended for doors in rooms without another entrance.



EXIT LOCK
1687DU

For exit doors

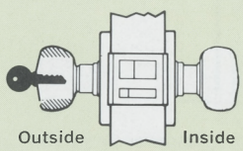
Latch bolt by either knob except when outside knob is locked by key in inside knob. Deadlocking latch.



INSTITUTIONAL LOCK
1688DU

For institutional doors

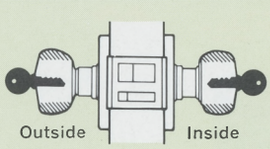
Latch bolt by either knob except when both knobs are locked simultaneously by key in outside knob. Deadlocking latch.



STORE ROOM LOCK
1690DU

For store room or exit doors

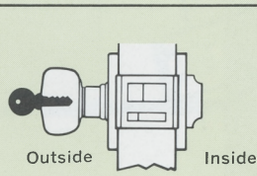
Latch bolt by key in outside knob or by inside knob at all times. Inside knob always free. Outside knob always rigid. Deadlocking latch.



FIXED KNOB LOCK
1691DU

For permanently locked passage doors

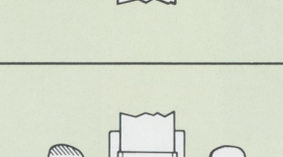
Latch bolt by key in either knob at all times. Both knobs always rigid. Deadlocking latch.



CABINET LOCK
1694DU

For key operated closet, cabinet or pipe shaft doors, without space for knob or thumb turn

Latch bolt by key in outside knob at all times. Blank rose inside. Knob always rigid. Deadlocking latch. Not recommended for closets without other means of egress.

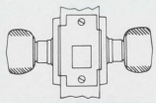


INSTITUTIONAL LOCK
1698DUHB

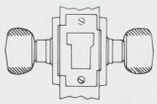
For institutional or service doors

Latch bolt by key in outside knob and inside knob at all times. Outside knob always rigid. Latch bolt may be held retracted by turning inside knob counterclockwise until latch bolt is retracted and rotating key in inside knob to locked position. Deadlocking latch.

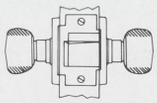
Lock Case and Strike Combinations



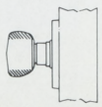
INACTIVE DOOR X 1600-16DT
Used with latch or deadlatching locks on active door.



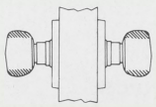
INACTIVE DOOR X 1600-17DT
Used with deadbolt locks on active door.



INACTIVE DOOR X 1600-18DT
Open Back. Used with latch or deadlatching locks on active door.



SINGLE DUMMY TRIM X 1600-DT
Used where pull only required or with auxiliary locking. Knob on pull side.



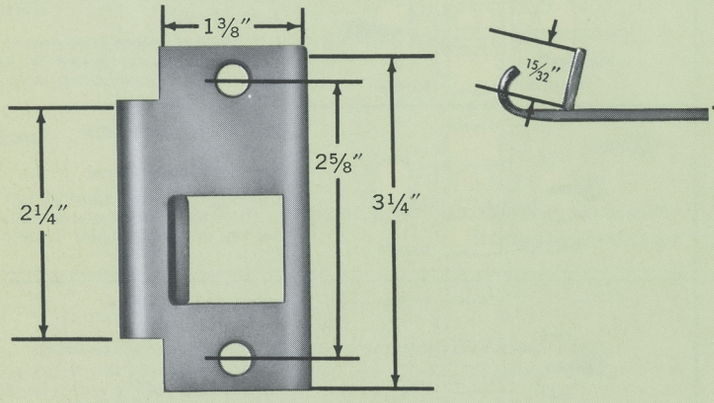
PAIR DUMMY TRIM X 1600-19DT
Used where lock or latch not required or with auxiliary locking. Apply to inactive leaf of pair of doors.

DUMMY TRIM

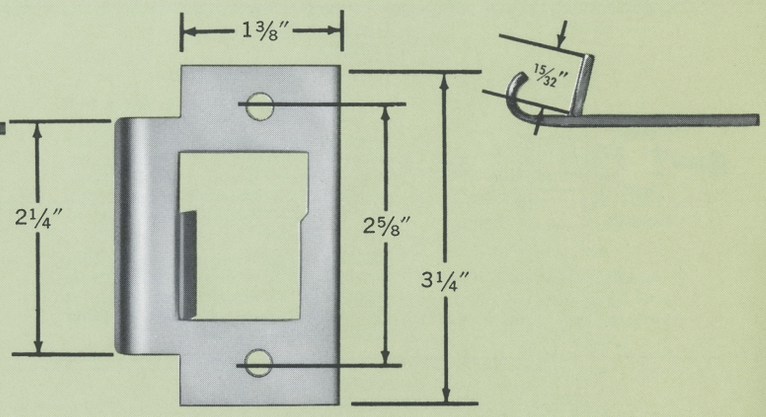
Knobs and roses are identical to those supplied with locks. Dummy lock frame provided to duplicate actual lock installation. In addition to blank frames, door edge of frame provided to function as strike when applied to inactive leaf of pair of doors. Units are adjustable for 2½" backsets.

1500
1600 Series

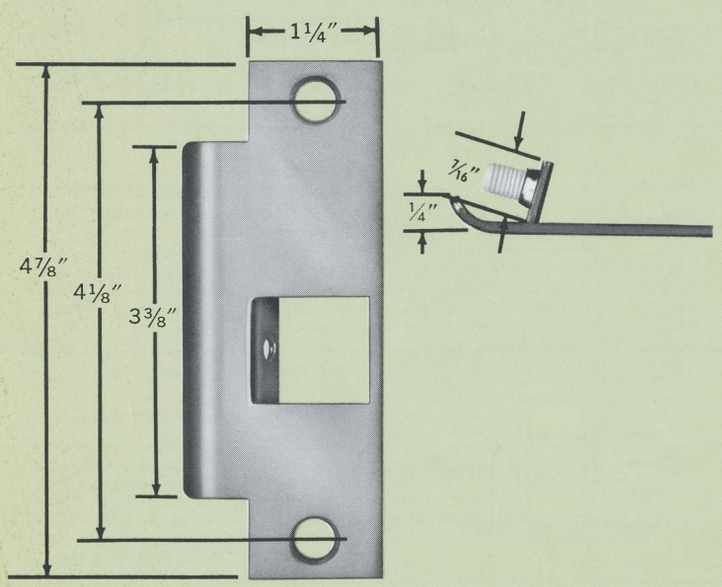
STRIKES



1343; For inactive door (pair of doors) latch or deadlatch units. Non-adjustable.



1344; For inactive door (pair of doors) latch with dead bolt units. Non-adjustable.



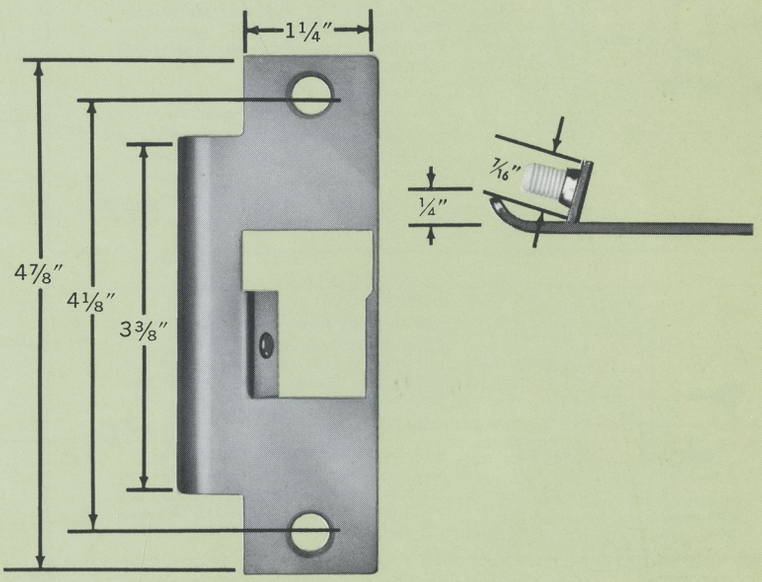
1346 STANDARD ADJUSTABLE

Brass or Bronze.

For latch or deadlatching units on single doors.

Door Thickness	Lip Length To Center
1 3/8"	1 1/16"
1 3/4"	1 1/4"
2"	1 3/8"
2 1/4"	1 1/2"
2 1/2"	1 5/8"

Box supplied to special order.



1347 STANDARD ADJUSTABLE

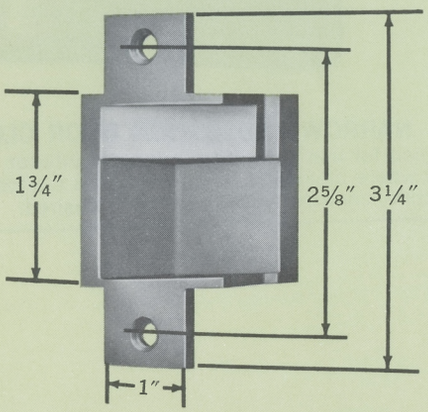
Brass or Bronze.

For latch units with dead bolt units on single doors.

Door Thickness	Lip Length To Center
1 3/8"	1 1/16"
1 3/4"	1 1/4"
2"	1 3/8"
2 1/4"	1 1/2"
2 1/2"	1 5/8"

Box supplied to special order.

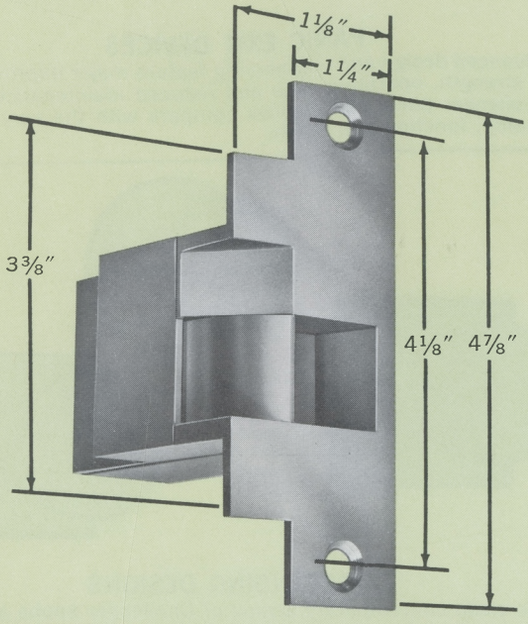
1500
Series 1600
INSTRUCTION PLATES



1345 OPEN BACK STRIKE

Cast Brass or Bronze.

For use with latch or deadlatching units. For inactive leaf of pair of doors. Flat, "V" or reverse "V". 1¾", 2" and 2¼" doors only.



1378 ELECTRIC DOOR OPENER (CAST)

Functions as strike for all latch or deadlatching units. Can be electrically released from a remote point.

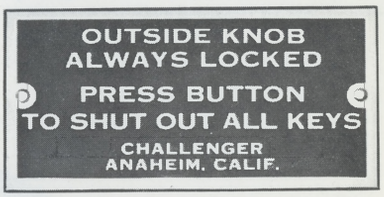
Voltage; 8-16 V.A.C. or 3-6 V.D.C.

Door Thickness; 1¾".

INSTRUCTION PLATES

For Lock 1672DU

The following instruction plates are available at no charge when required and ordered with the locks. Plates will not be regularly packed with the locks.

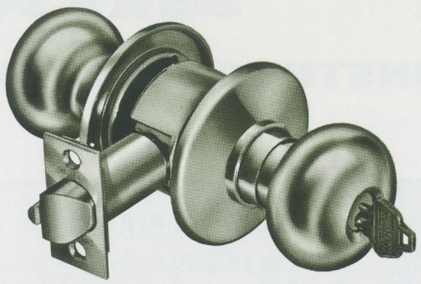


Challenger English Plate



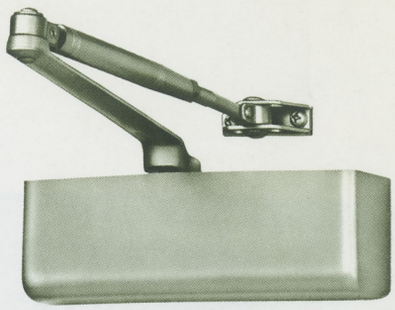
Challenger English & Spanish Plate

CHALLENGER OFFERS A WIDE LINE OF INSTITUTIONAL HARDWARE



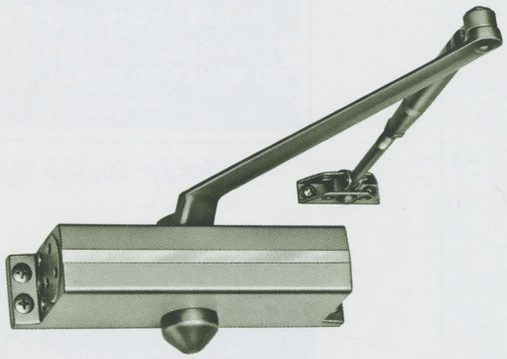
HEAVY DUTY CYLINDRICAL LOCKSETS

Challenger 900 Series—one of the smoothest locksets ever built. Many of the engineering innovations pioneered on this lock are now standard in the industry.



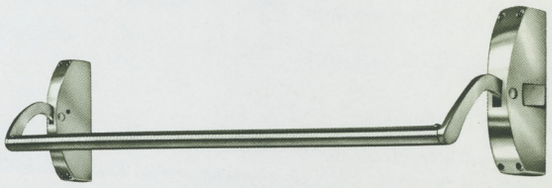
NARROW PROJECTION DOOR CLOSERS

Designed for use on both exterior and interior wood or metal doors where clearance for the closer is limited; or where an attractive, unobtrusive installation is desired.



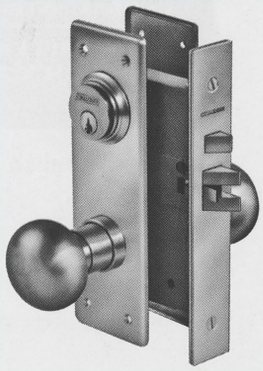
"SLIM-STILE" DOOR CLOSERS

One of the most modern, streamlined for all compact type closers. Full rack and pinion. Universal in application; standard closer meets virtually every application. Installation and maintenance is simple.



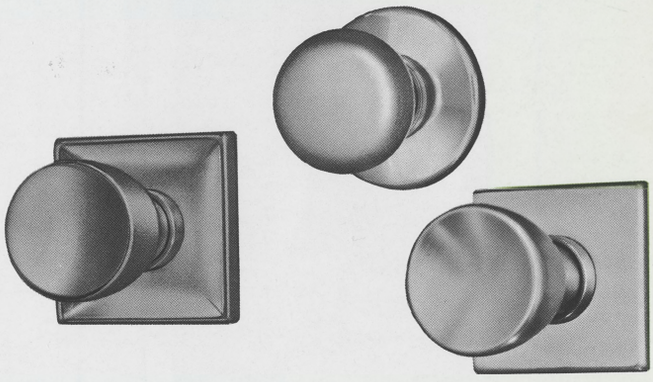
PANIC EXIT DEVICES

Advanced design and engineering feature major improvements in strength, operating ease and reduced maintenance needs. Challenger panic exit devices compare with the very best in quality, function and finish.



HEAVY DUTY MORTISE LOCKS

Rugged and dependable, the Challenger mortise lock has heavier parts, is more finely finished and exactingly fitted to provide long trouble-free operation. Exclusive thru-bolt process of application assures positive alignment every installation.



OUTSTANDING DESIGNS

The clean contemporary styling of Challenger knobs and trim complement any modern building. Many different designs in brass, bronze, aluminum, stainless steel and wood are available in numerous variations.

EATON YALE & TOWNE INC

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

FORM NO. 1600-C/4-67/LAI/5M PRINTED IN U. S. A.

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803

TELEPHONE: 714/774-1044 • TELETYPE: 910/591-1156

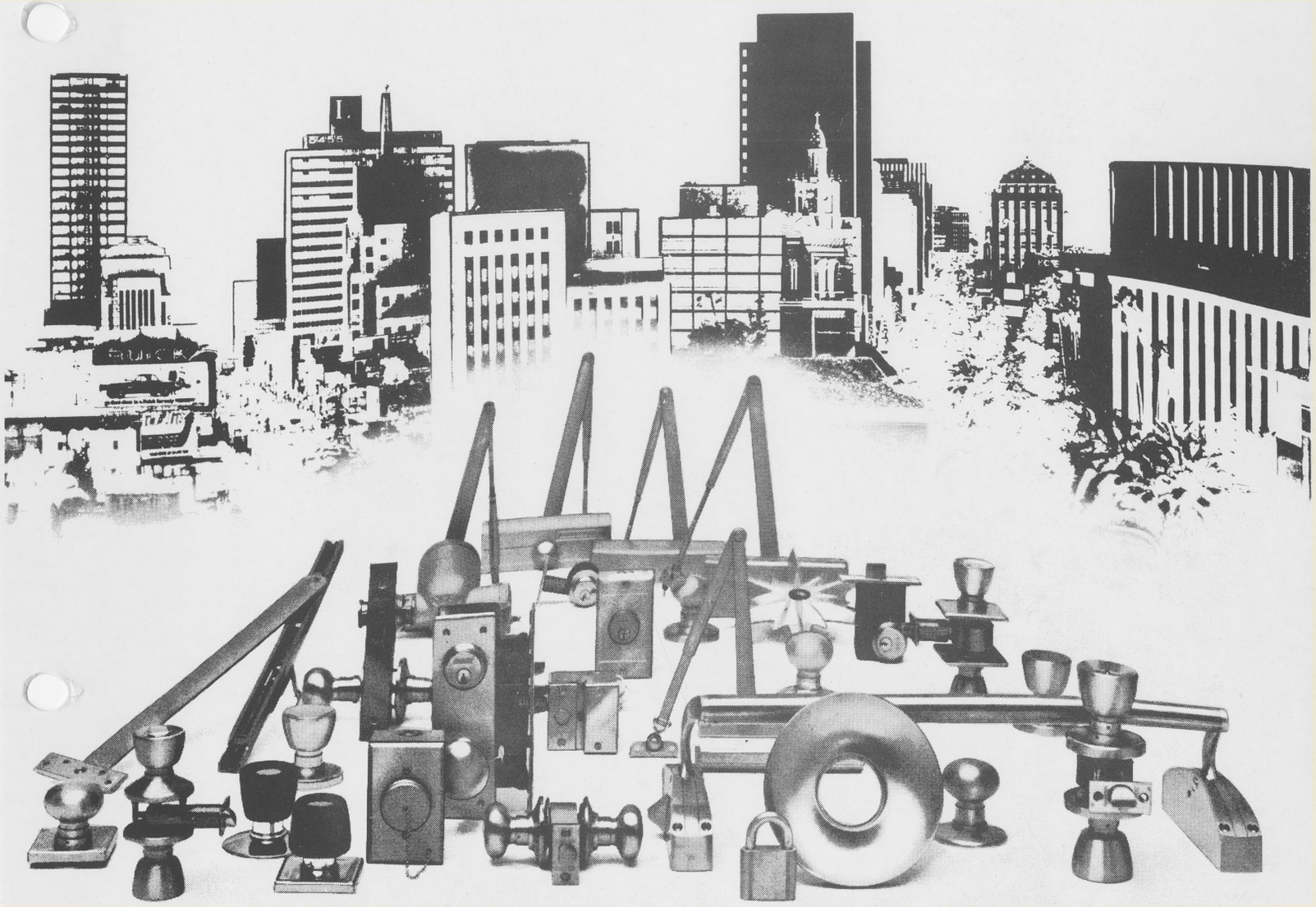
We are pleased to present you with Challenger's Contract catalog and net price list 91N, and to make Challenger Door Hardware available to you. This price list and catalog is registered to your firm and will be kept up to date for you by direct mail.

We will welcome the opportunity to serve you. Please call us collect, person-to-person, to Bill Holmes or George Billings, at Area Code 714 - 774-1044, Anaheim, California, for information on "package" service on contract jobs.

CHALLENGER LOCK AND HARDWARE DIVISION

CHALLENGER®

CATALOG NO. 60
BUILDER'S HARDWARE



Within these pages you will find the quality key to every locking requirement...

For more than twenty years, the name Challenger has stood for quality in materials, good taste in design and patience in craftsmanship. The increasing popularity of Challenger locks testifies to the success of this manufacturing philosophy—and to the loyalty of dealers and distributors everywhere who have wisely insisted on Challenger quality in every lock they sell.

CHALLENGER®

How to Order Challenger Products

When preparing an order for Challenger Products the data should be presented in the following sequence:

1. **Quantity:** Indicate quantity by number. Shelf boxes and full case quantities in addition to weights are shown on pages
2. **Catalogue No.:** Indicate proper catalogue number of item selected.
3. **Design:** Indicate name of design if applicable.
4. **Finish:** Where applicable indicate U.S. Standard Finish. When split finish is desired on locksets show outside finish first followed by inside finish.
   A list of U.S. Standard Finishes is shown on page C.

Where required many items need special consideration. The following check list should be observed so that the products will fit the details of your projects.

A. Hand of Doors (see page B). Most Challenger locksets are fully reversible, however, the hand of door should be specified to insure that the cylinder is in the correct upright position when the lockset is installed. We will furnish all items for right hand doors unless otherwise specified.

B. Fastenings desired (see page D). Slotted wood screws furnished unless otherwise specified.

C. Strikes (see lock section involved and section 13).

D. Strike Boxes (see lock section involved and section 13).

E. Strike Lip to Center Dimension (see page 811). The use of proper length strike lips is one of the signs of a competent hardware consultant.

F. Backset (see section involved).

G. Door Thickness (see section involved).

H. Keying Information (see page 1001).

I. Name and location of job if Masterkeyed.

J. Quantity of Cut Charge Keys and Cut Masterkeys required.

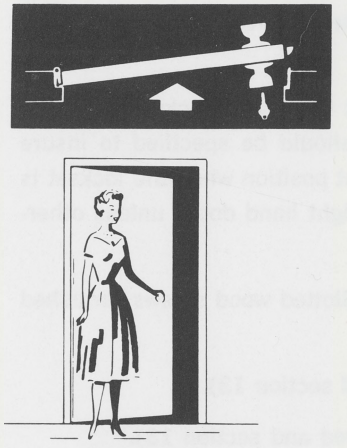
K. Special Fronts and Latches: Specify if Rabbeted, or Radius Fronts are required.

SPECIAL MARKINGS: INDICATE SPECIAL MARKINGS IF REQUIRED. A SLIGHT ADDITIONAL CHARGE IS USUALLY MADE FOR THIS SERVICE. SEE PRICE LIST FOR DETAILS.

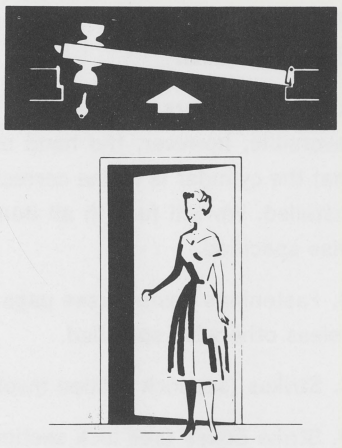
How To Order
Hand Of Door

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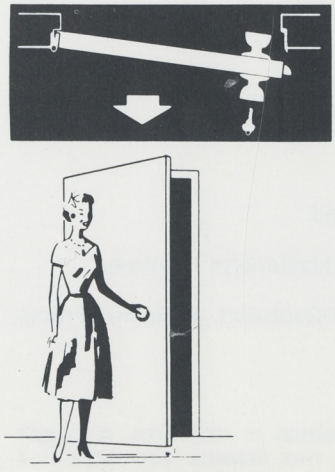
HAND OF DOORS ALWAYS DETERMINED FROM THE OUTSIDE



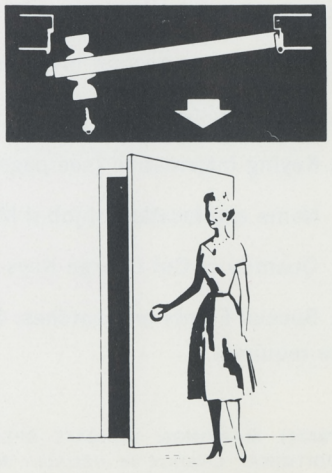
LEFT HAND
LH



RIGHT HAND
RH



LEFT HAND REVERSE BEVEL
LHRB



RIGHT HAND REVERSE BEVEL
RHRB

How to Order Challenger Products

When preparing an order for Challenger Products the data should be presented in the following sequence:

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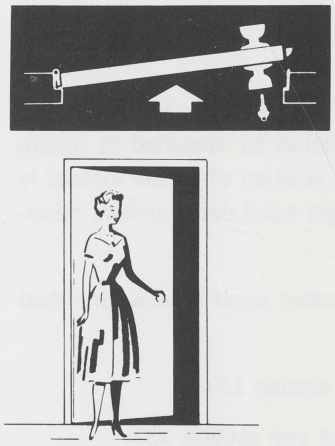
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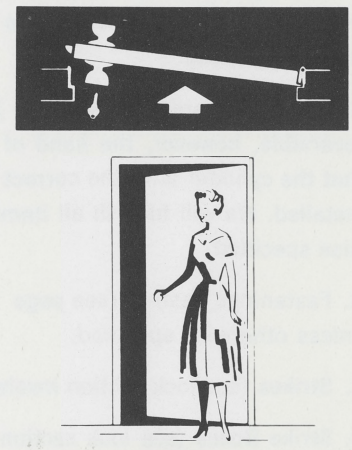
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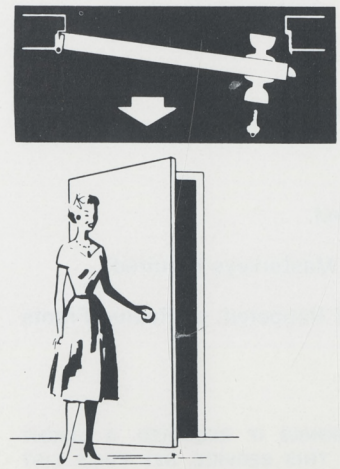
HAND OF DOORS ALWAYS DETERMINED FROM THE OUTSIDE



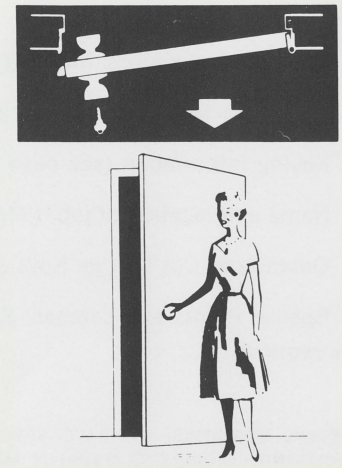
LEFT HAND
LH



RIGHT HAND
RH



LEFT HAND REVERSE BEVEL
LHRB



RIGHT HAND REVERSE BEVEL
RHRB

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CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Challenger Standard Finishes

U.S. FINISH SYMBOL	FINISH	BASE MATERIAL
3	Polished	Brass
4	Dull	Brass
10	Dull	Bronze
10B	Oil Rubbed, Oxidized & Relieved	Bronze
19	Dull Black Lacquer	Brass
26	Polished Chromium Plated	Brass
26D	Dull Chromium Plated	Brass
28	Satin Anodized & Waxed	Aluminum
32	Polished	Stainless Steel
32D	Dull	Stainless Steel

SPECIAL FINISHES

3A	Polished, No Lacquer	Brass
9	Polished	Bronze
9A	Polished, No Lacquer	Bronze

Symbols and Abbreviations

Used in Ordering Challenger Builders Hardware

Fastenings

TMS	To template with machine screws
FTMS	Latch face only to template with machine screws
STMS	Strike only to template with machine screws
WS	Wood screws
MS	Machine screws
SMS	Sheet metal screws
STS	Self tapping machine screws Type 1
PH___	Phillips head screws (prefix to wood (WS) or machine (MS) screws)
SHMS	Spanner head machine screws
AHMS	Allen head machine screws

Strikes & Latches

F/F	Flat front
BEV/F	Beveled front 1/8" in 2"
RA	Radius latch faces and strikes, 1/4" radius
RAF	Radius latch faces only, 1/4" radius
RAS	Radius strikes only, 1/4" radius
RAB	Rabbeted front and strike
ROF	Rounded mortise deadlock front
ROFS	Rounded mortise deadlock front and strike
WBX	Wrought box strike
AR	Armored front
PBX	Protected box strike
RB	Reverse bevel

Miscellaneous

B/S	Backset
MIN	Minimum
W/	With
W/O	Without
DT	Dummy trim
WR	Wrought reinforced
CF	Cold forged

Hands of Doors (see Page B)

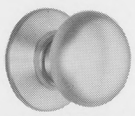
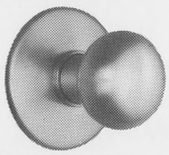
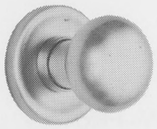
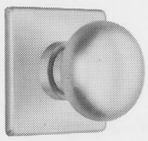
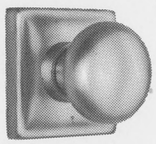
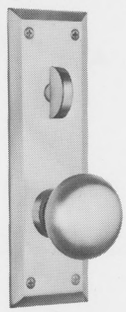
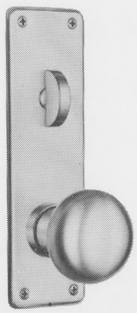
Keying (see Page 1001)

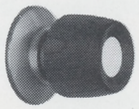
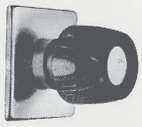
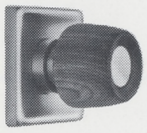
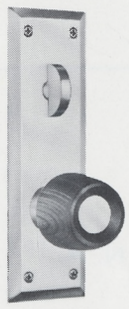
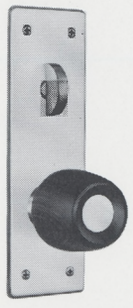
KD	Keyed to differ
KA	Keyed alike
MK	Masterkeyed
GMK	Grand masterkeyed
GGMK	Great grand masterkey
KTP	Keyed to pass (maisoned)
EMK	Emergency masterkeying

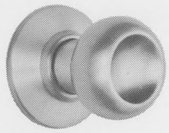
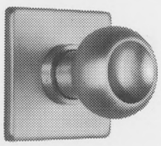
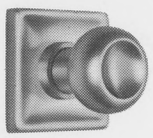
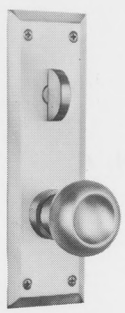
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CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

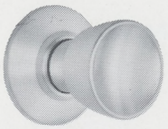
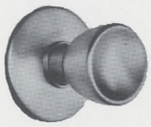
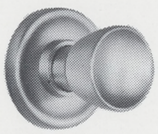
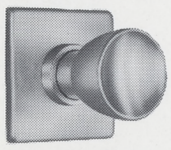
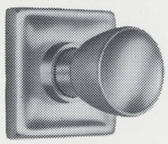
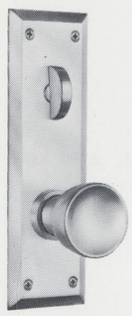
DESIGN SELECTOR CHART

In order to simplify selection of matching knob designs in the full Challenger line, all complimentary designs are shown here in a horizontal line under the proper series heading. For specific knob and rose sizes refer to Individual Design Sheet.

	200-300-400 Mortise	500 Tubular	800 Semi-Heavy Duty Cylindrical	900 Heavy Duty Cylindrical
	Venus Meteor Monitor Regent	Venus	Venus Meteor Metro Monitor	Regent
	Manhattan Gladiator	Venus	Manhattan	Gladiator
	El Dorado Explorer	N. A.	El Dorado	Explorer
	Mars Hercules	N. A.	Mars	Hercules
	Vulcan Jupiter	N. A.	Vulcan	Jupiter
	Monza	N. A.	N. A.	N. A.
	Olympus Odessa Royal	N. A.	N. A.	N. A.

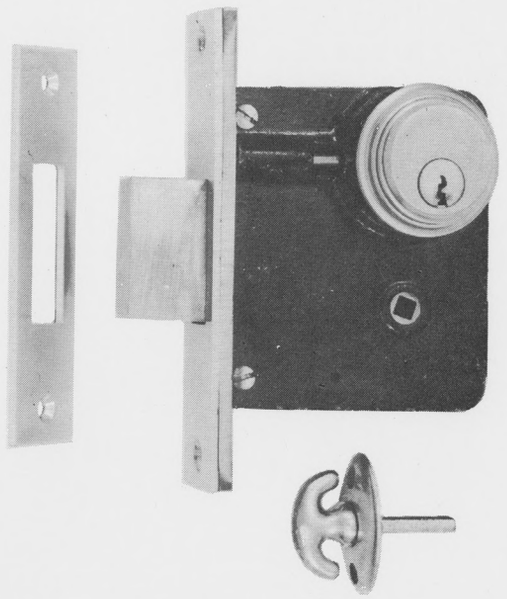
	200-300-400 Mortise	500 Tubular	800 Semi-Heavy Duty Cylindrical	900 Heavy Duty Cylindrical
	W–Vista W–Romona W–Midas	N. A.	W–Vista W–Mystic W–Romona	W–Midas
	W–Balboa W–Barracuda	N. A.	W–Balboa	W–Barracuda
	W–Futura W–Fortuna	N. A.	W–Futura	W–Fortuna
	W–Marlin W–Hilo	N. A.	W–Marlin	W–Hilo
	W–Atwood W–Ajax	N. A.	W–Atwood	W–Ajax
	W–Mecca	N. A.	N. A.	N. A.
	W–Orion W–Keystone W–Olinda	N. A.	N. A.	N. A.

	200-300-400 Mortise	500 Tubular	800 Semi-Heavy Duty Cylindrical	900 Heavy Duty Cylindrical
	Concave Chateau	Concave	Concave Carthage Chateau	N. A.
	Ciro	Concave	Ciro	N. A.
	Citation	N. A.	Citation	N. A.
	Polaris	N. A.	Polaris	N. A.
	Centarus	N. A.	Centarus	N. A.
	Colton	N. A.	N. A.	N. A.
	Catalina	N. A.	N. A.	N. A.

	200-300-400 Mortise	500 Tubular	800 Semi-Heavy Duty Cylindrical	900 Heavy Duty Cylindrical
	Holiday Hudson Matador W–Matador	Holiday	Holiday El Toro Hudson	Matador W–Matador
	Hallmark Bomarc W–Bomarc	Holiday	Hallmark	Bomarc W–Bomarc
	Fair Fiesta W–Fiesta	N. A.	Fair	Fiesta W–Fiesta
	Piper Pluto W–Pluto	N. A.	Piper	Pluto W–Pluto
	Aurora Atlas W–Atlas	N. A.	Aurora	Atlas W–Atlas
	Hayward	N. A.	N. A.	N. A.
	Hermosa Omar Fulton W–Omar W–Fulton	N. A.	N. A.	N. A.

100 Series AUXILIARY LOCKS

Extra Heavy Mortise Deadlocks



SPECIFY DOOR THICKNESS

Case: Japanned iron, 3⅞" x 3$^{17}/_{32}$" x ⅞".

Backset: 2½"

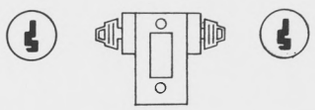
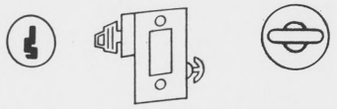
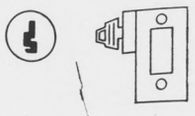
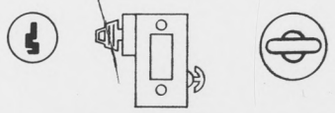
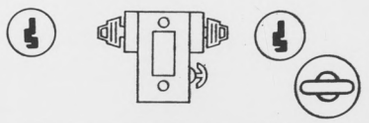
Front: Brass or bronze armored, flat 5⅞" x 1¼" reversible. Available bevelled ⅛" in 2" specify hand.

Strike: Brass or bronze 4$^{15}/_{16}$" x 1¼". Wrought box available at extra cost add WBX to catalog No.

Bolt: Bronze, $^{5}/_{16}$" x 1$^{11}/_{16}$" with 1" throw. Two hardened steel pins.

Cylinder: Type B 5 or 6 pin with #1079A special cam & cylinder ring No. 1083.

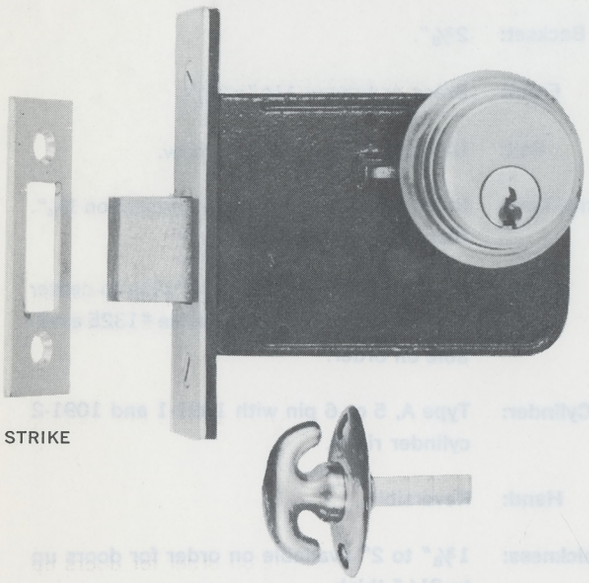
Thumb Turn: No. 100-43.

CATALOG No.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
122B		Double Cylinder Deadlock. Deadbolt by key from either side.
123B		Deadlock. Deadbolt by key from outside or Thumb Turn from inside.
124B		Deadlock. Deadbolt by key from outside only. No inside operation.
125B		Safety Deadlock. Deadbolt by key from outside. Thumb Turn inside will withdraw, but not project bolt.
127B		Double Cylinder Safety Deadlock. Deadbolt by key from either side. Thumb turn inside will withdraw but not project bolt.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

AUXILIARY LOCKS **100 Series**

Mortise Deadlocks



STRIKE

SPECIFY DOOR THICKNESS

Case: Japanned iron, 2½" x 3⅝" x 13/16".

Backset: 2¾" standard, special 2", or 2½" when specified.

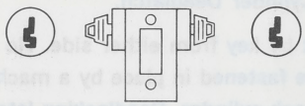
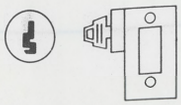
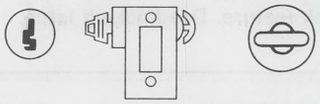
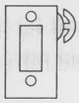
Front: Brass, bronze, or aluminum; armored flat 4" x 1⅛" reversible. Rabbeted fronts available at extra cost for ½" rabbet (not reversible state hand). Add "RAB" to catalog No. Rounded front and strike available at extra cost to 2¼" radius. Add "ROF" to catalog No. for rounded front only, "ROFS" for rounded front and strike.

Strike: Brass or bronze 2 27/32" x 3 1/32". Wrought box strike available at extra cost. Add WBX to catalog No.

Bolt: Bronze ½" x 1" with ¾" throw. Hardened steel pins available at extra cost.

Cylinder: Type B. 5 or 6 pin with No. 1083 Cylinder Ring.

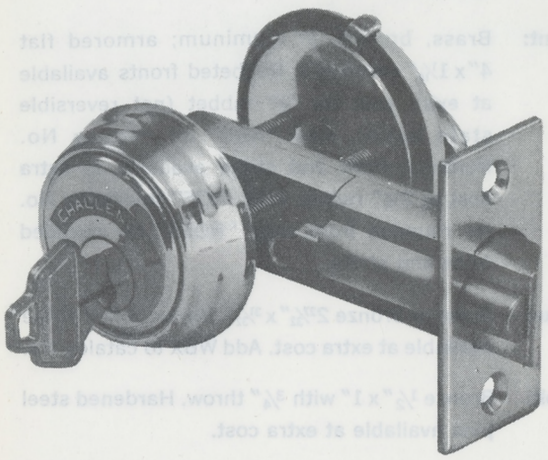
Thumb Turn: No. 100-33.

CATALOG No.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
112B (190M)		Double cylinder deadlock. Deadbolt by key from either side.
113B (190K)		Deadlock. Deadbolt by key from outside or thumb turn from inside.
114B (190L)		Deadlock. Deadbolt by key from outside only. No inside operation.
115B (191)		Safety Deadlock. Deadbolt by key from outside. Thumb turn inside will withdraw, but not project bolt.
116		Door Bolt. Deadbolt by thumb turn from inside. No outside operation.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

100 Series AUXILIARY LOCKS

Tubular Night Latches



Specify door thickness.

Case: Die Cast 1" diam., 3⅛" long.

Backset: 2⅜".

Front: Brass or bronze 1⅛" x 2⅝".

Bolt: Die cast 11/16" x ⅞" x ½" throw.

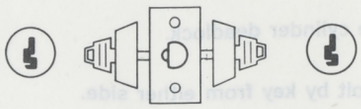
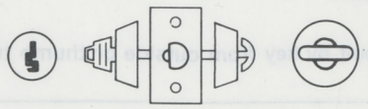
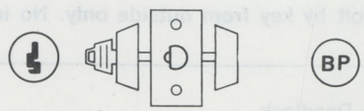
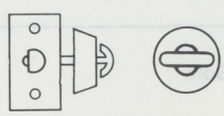
Thumb Turn: Brass or bronze 1¾" diam., projection 1 3/16". Blank plate projection 7/16".

Strike: Brass or bronze #1338 2¼" x Lip to center 1¼" standard. Template strike #1325 available on order.

Cylinder: Type A, 5 or 6 pin with 1091-1 and 1091-2 cylinder rings.

Hand: Reversible.

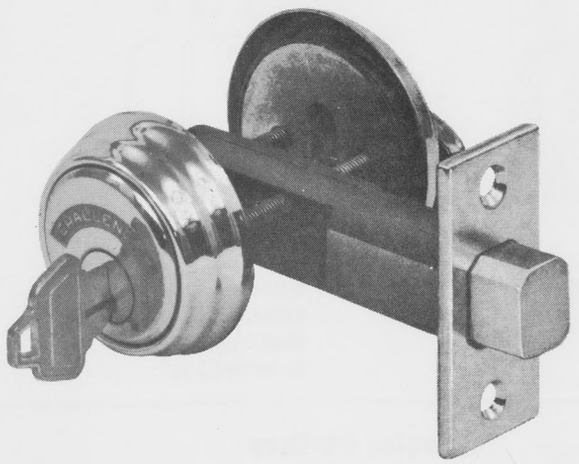
Door Thickness: 1⅜" to 2" available on order for doors up to 2½" thick.

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
311		Double Cylinder Deadlatch. Latchbolt by key from either side. No holdback feature. Cylinders are fastened in place by a machine screw through the face of each cylinder. Deadlocking latch.
3		Deadlatch. Latchbolt by key from outside or thumb turn inside deadlocking latchbolt held retracted by catch on thumb turn plate.
3X		Deadlatch. Latchbolt by key from outside only. Blank plate inside. No holdback feature. Deadlocking latch.
3T		Exit Deadlatch. No cylinder. Latchbolt by thumb turn from inside only. Deadlocking latchbolt held retracted by catch on thumb turn plate.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

AUXILIARY LOCKS **100 Series**

Tubular Deadlocks



Specify door thickness.

Case: Die Cast 7/8" diam., 3 1/8" long.

Backset: 2 3/8".

Front: Brass or bronze 1 1/16" x 2 5/16".

Bolt: Die Cast 9/16" x 23/32" with 1/2" throw.

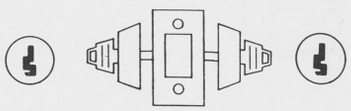
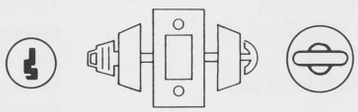
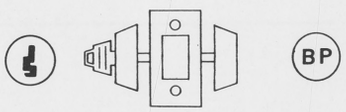
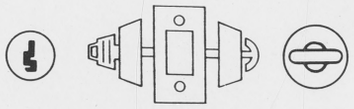
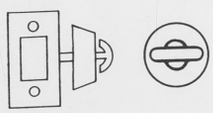
Thumb Turn: Brass or bronze 1 3/4" diam., projection 13/16". Blank plate projection 7/16".

Strike: Brass or bronze, No. 1336, 1" x 2 1/4". Wrought Box #1337 available on order.

Cylinder: Type A, 5 or 6 pin with No. 1091-1 and 1091-2 cylinder rings.

Hand: Reversible.

Door Thickness: 1 3/8" to 2". Available on order for doors up to 2 1/2" thick.

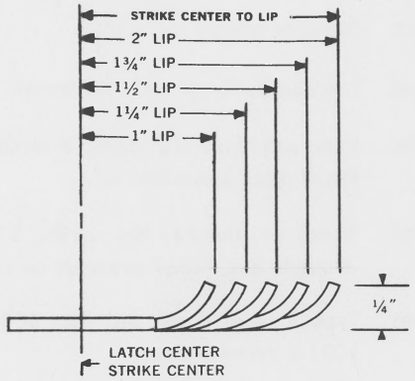
CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
111		Double Cylinder Deadlock. Deadbolt by key from either side. Cylinders are fastened in place by a machine screw through the face of each cylinder.
1		Deadlock. Deadbolt by key from outside or thumb turn from inside.
1X		Deadlock. Deadbolt by key from outside only. Blank plate inside.
01		Safety Deadlock. Deadbolt by key from outside. Thumb turn inside will withdraw, but not project bolt.
1T		Door Bolt. No cylinder. Deadbolt by thumb turn from the inside only.

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CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

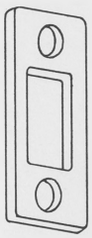
100 Series AUXILIARY LOCKS

Tubular Deadlocks and Night Latches – Miscellaneous

WHEN ORDERING SPECIFY FINISH



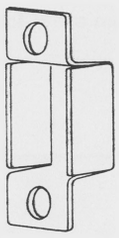
Strikes



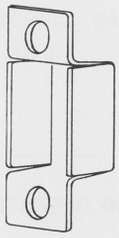
No. 1336
Standard for tubular deadlocks. Size 1" x 2¼".



No. 1338
Standard for tubular night latches. Size 2¼" x Lip to center 1¼".



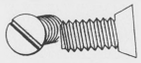
No. 1311
Wrought box for strikes No. 1336, 1338, 1310.



No. 1321
Wrought box for strikes No. 1320.

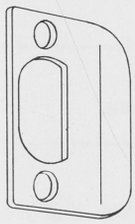


No. C67
Wood Screw
8 x ¾".

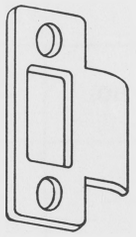


No. C 69
Machine Screw
8-32 x ½".
Flat undercut Head.

Special Strikes



No. 1310
For tubular night latches. Size 2¼" lip to center 1⅝" other sizes to order.

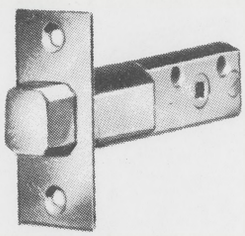


No. 1320
Template strike for tubular night latches. Size 2¾" x lip to center 1¼". Other sizes to order.

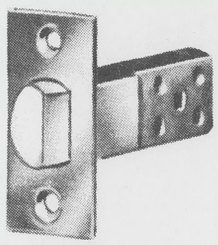
AUXILIARY LOCKS **100 Series**

Tubular Deadlocks and Night Latches—
Miscellaneous Replacement Parts List

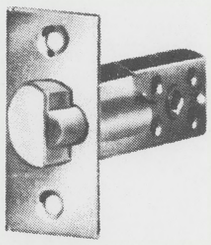
Latchbolts (Specify Finish Required)



No. D 100-1
Deadbolt
Used in No's
111, 1, 1X, 01, 1T



No. B 100-0
Spring Latch
Used in No's
211, 2, 2X, 2T



No. A 100-1
Deadlatch
Used in No's
311, 3, 3X, 3T

Thumbturns and Blank Plates (Specify Finish Required)



No. D 101-T
Thumbturn
Used in No. 1T



No. D 101-3
Thumbturn
Used in No. 1



No. D 101-4
Thumbturn
Used in No. 01



No. D 101-5
Blank Plate
Used in No's
1X, 2X, 3X



No. B 101-T
Thumbturn
Used in No's
2T, 3T



No. B 101-2
Thumbturn
Used in No's 2, 3



Strikes (Specify Finish Required)



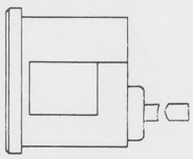
No. 1336
Size 1 x 2¼"
For Tubular
Deadlocks

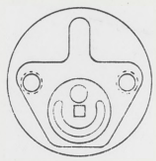


No. 1338
Size 2¼ • Lip
to Center 1¼"
For Tubular
Night Latches

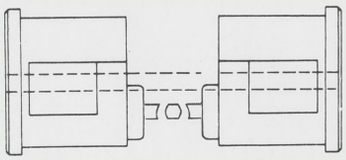
Cylinders (Specify Finish Required)

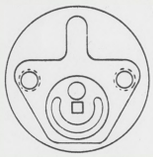
TYPE A—used in all except
double cylinder items





TYPE AD—used in all double
cylinder items





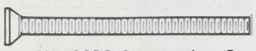
Screws (Specify Finish Required)



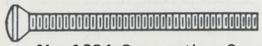
No. C67
Wood Screw 8 x ¾"



No. C69
Machine Screw
8-32 x ½"
Flat Undercut Head

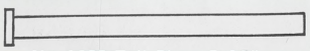


No. 1098 Connecting Screw
Used in double cylinder units

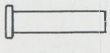


No. 1094 Connecting Screw

Miscellaneous



No. 1089 Tail Piece 5/32" sq. x 2"



No. 1090 Tail Piece
5/32" sq. x 7/16"

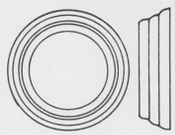


No. D 102 (ABD 19)
Escapement and Cap

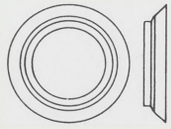


No. 1084
2/56 x ¼"
(For 102 Escapement)

Cylinder Rings (Specify Finish Required)



No. 1091-1



No. 1091-2
Used with No. 1091-1
for greater projection

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

200
300
400 Series



MORTISE LOCK DESIGNS

200
300
Series 400

Omar Design

Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Escutcheon: 2-1/4" x 7-1/2" .050" cold forged.
Projection: 3".
Thumbturn: #2616 forged.
Cylinder Ring: #1083 adjustable, furnished unless other is ordered.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

Fulton Design

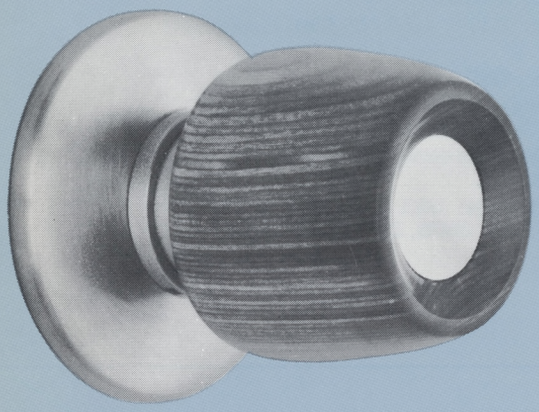
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Escutcheon: 2-1/2" x 8" .081" cold forged.
Projection: 3".
Thumbturn: #2616 forged.
Cylinder Ring: #1083 adjustable, furnished unless other is ordered.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

200
300
400 Series

MORTISE LOCK DESIGNS

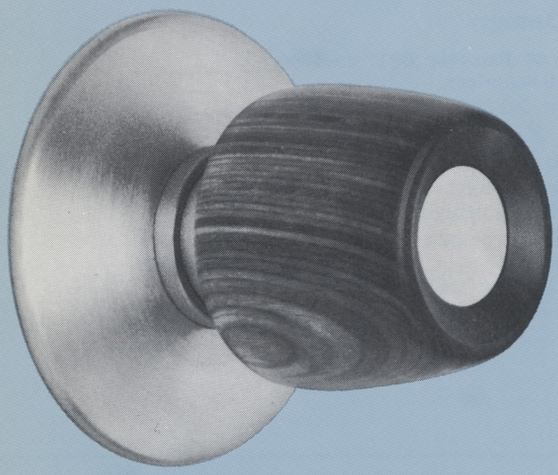
200
300
Series 400

NOTE: COCOBOLO WOOD KNOBS. Because of the variation of the color in the Cocobolo wood, there can be no assurance that any two knobs on any one job will match.



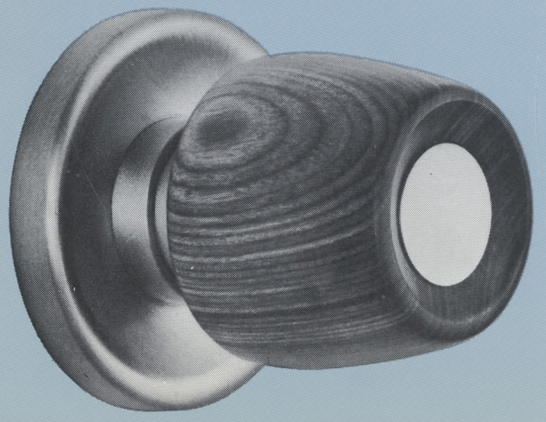
W-Midas Design

Knob: 2-1/4" diameter, wood.
Rose: 3" diameter .081" cold forged.
Projection: 2-15/16".
Thumbturn: #2603 forged x 1-5/8" diameter .081" forged plate.
Cylinder Ring: #1083 adjustable, furnished unless other is ordered.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Barracuda Design

Knob: 2-1/4" diameter, wood.
Rose: 3-1/2" diameter .081" cold forged.
Projection: 2-15/16".
Thumbturn: #2603 forged x 1-5/8" diameter .081" forged plate.
Cylinder Ring: #1083 adjustable, furnished unless other is ordered.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Fortuna Design

Knob: 2-1/4" diameter, wood.
Rose: 3" diameter .081" cold forged.
Projection: 2-15/16".
Thumbturn: #2603 forged x 1-5/8" diameter .081" forged plate.
Cylinder Ring: #1083 adjustable, furnished unless other is ordered.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

CHALLENGER®

COMPARATIVE LIST

CHALLENGER 200 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a TYPE 85 AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
85A	263B
85B	255B
85C	282B
85D	260SB
85DW	290SB
85E	260DB
85EW	290DB

CHALLENGER 300 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a TYPE 86 AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
86A	363B
86B	355B
86C	382B
86D	360SB
86DW	390SB
86E	360DB
86EW	390DB
86F	N/C
86FW	N/C
86G	371DB
86H	372B
86J	380DB
86L	310
86M	331
86N	300S
86P	393B
86S	394B
86T	392B

CHALLENGER 400 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a, TYPE 87, AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
87E	460DB 3/4
87G	471DB 3/4
87N	400D 3/4

INDEXED TO CORBIN NO. 7000 SERIES	CHALLENGER 200 SERIES
7000	231
7010	200S
7011	N/C use 394B
7012	N/C use 392B
7013	N/C use 393B
7017	N/C
7020	210
7021	254B
7022	282B
7023	255B
7023 1/4	N/C
7025	N/C
7027	N/C use 372B
7031	260SB
7033	N/C
7034	271SB
7035	280SB
7037	290SB
7042	N/C
7043	263B
7047	N/C
7048	N/C use H363B
7051	260DB
7054	271DB
7055	280DB
7057	290DB
7072	N/C
7073	N/C
7088	N/C use H382B

NOTES:

7200 Series same as 7000 Series except 5/8" throw anti friction latchbolt.

7400 Series same as 7000 Series except 1" throw deadbolt.

7600 Series same as 7200 Series except 1" throw deadbolt.

N/C = No Comparison

INDEXED TO CORBIN NO. 7500 SERIES	CHALLENGER 300 SERIES
7311	394B
7312	392B
7313	393B
7317	395B
7500	331
7510	300S
7520	310
7521	354B
7521L	354BRL
7522	382B
7522L	382BRL
7523	355B
7523L	355BRL
7523 1/4	N/C
7525	N/C
7527	372B
7529	N/C
7531	360SB
7533	373B
7534	371SB
7535	380SB
7537	390SB
7539	N/C
7542	N/C
7543	363B
7547	N/C
7548	H363B
7551	360DB
7554	371DB
7555	380DB
7557	390DB
7565	N/C
7588	H382B

NOTES:

7900 Series same as 7500 Series except 1" throw deadbolt.

8300-8500 Series same as 7500 Series except with large mogul cylinder.

6600 Series extra heavy winged latchbolt Series.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO LOCKWOOD NO. T5000 SERIES	CHALLENGER 200 SERIES	INDEXED TO LOCKWOOD NO. B5100 SERIES	CHALLENGER 300 SERIES
T5000	263B	B5100	363B
T5000 1/4	290SB	B5100 1/4	390SB
T5000 1/2	260SB	B5100 1/2	360SB
T5000 5/8	290DB	B5100 5/8	390DB
T5000 3/4	260DB	B5100 3/4	360DB
T5017	N/C use 394B	B5117	394B
T5017 1/2	N/C use 393B	B5117 1/2	393B
T5017 3/4	N/C use 392B	B5117 3/4	392B
T5020	282B	B5120	382B
		B5130	355B
		B5135	354B
T5030	255B	B5138	331
T5035	254B	B5149	310
T5038	231	B5155 1/2	371SB
5044	N/C	B5155 3/4	371DB
5046	N/C	B5156 1/2	380SB
5048	N/C	B5156 3/4	380DB
T5049	210	B5160	N/C
T5055 1/2	271SB	5161	N/C
T5055 3/4	271DB	5162	N/C
T5056 1/2	280SB	B5170	372B
T5056 3/4	280DB	B5184	300S
T5070	N/C use 372B		
5080	N/C		
5082	N/C		
T5084	200S		
5085	N/C		
5086	N/C		
5090	N/C		

NOTES:

5200 Series same as T5000 Series except 3/4" throw deadbolt.

G5100 Series same as B5100 Series except 3/4" throw latchbolts.

F5000 Series same as T5000 Series except anti friction latchbolts.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO RUSSWIN NO. 1000 SERIES	CHALLENGER 200 SERIES
1007	N/C use 393B
1007 1/4	N/C use 394B
1007 1/2	N/C use 392B
1007 3/4	N/C
1013	N/C use H363B
1018	N/C
1018 1/2	N/C
1023	N/C
1024	255B
1024 1/4	254B
1024 1/2	282B
1024 3/4	N/C
1025	200S
1028	N/C
1033 HM	N/C use 372B
1036	290SB
1037	N/C use 373B
1038	260SB
1039	210
1040	231
1048	263B
1048 1/2	N/C
1049	N/C
1056	260DB
1058 1/2	271DB
1058 5/8	280DB
1059	290DB
1068 1/2	271SB
1068 5/8	280SB
1098	N/C
1098 1/2	N/C use H382B

INDEXED TO RUSSWIN NO. 2000 SERIES	CHALLENGER 300 SERIES
2007	393B
2007 1/4	394B
2007 1/2	392B
2007 3/4	N/C
A2013	H363B
A2023	N/C
A2024	355B
A2024 1/4	354B
A2024 1/2	382B
A2024 3/4	N/C
A2025	300S
A2033 HM	372B
A2034 HM	N/C
A2034 3/4 HM	N/C
A2036	390SB
A2037	373B
A2038	360SB
A2039	310
A2040	331
A2040 1/2	381B
A2040 7/8	351B
A2048	363B
A2048 1/2	N/C
A2049	N/C
A2056	360DB
A2058 1/2	371DB
A2058 5/8	380DB
A2059	390DB
A2061	N/C
A2068 1/2	371SB
A2068 5/8	380SB
A2098	N/C
A2098 1/2	H382B

NOTES:

Prefix A anti friction latchbolt.

1100 Series same as 1000 Series except 1" throw deadbolts.

2100 Series same as 2000 Series except 1" throw deadbolts.

2300 Series same as 2000 Series except 3/4" throw deadbolts.

3000 Series same as 2000 Series except 1 1/2" master ring cylinder.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO SARGENT NO. 6700 SERIES	CHALLENGER 200 SERIES
6705	260DB
6715	200S
6716	271DB
6720	N/C use 394B
6721	N/C use 393B
6722	N/C use 392B
6723	N/C use H382B
6725	255B
6726	282B
6728	N/C
6737	280DB
6745	263B
6746	260SB
6750	N/C use 372B
6761	N/C use H363B
6765	210
6775	231

INDEXED TO SARGENT NO. 7700 SERIES	CHALLENGER 300 SERIES
7703	N/C
7704	390DB
7705	360DB
7714	390SB
7715	300S
7716	371DB
7720	394B
7721	393B
7722	392B
7725	355B
7726	382B
7737	380DB
7745	363B
7746	360SB
7750	372B
7752	373B
7765	310
7775	331
7788	N/C
7792	N/C

NOTES:

7800 Series same as 7700 Series except 3/4" throw latchbolts and deadbolts.

Suffix R rabbeted front and strike.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO YALE NO. 4000 SERIES	CHALLENGER 200 SERIES
4000	200S
4032	N/C use 400D 3/4
4308	N/C use 394B
4308 1/4	N/C use 392B
4309	N/C use 393B
4426 1/4	N/C use H371DB
4428	N/C use H363B
4432 1/4	N/C use H382B
4472 1/4	N/C
4482	N/C
4525	231
4526	N/C use 351B
4526 1/4	N/C use 381B
4535	210
4646	280DB
4646 1/4	271DB
4648	290DB
4656	260DB
4660	255B
4660 1/4	282B
4661	254B
4750	263B
4790	260SB
4791	290SB
4792	280SB
4792 1/4	271SB

INDEXED TO YALE NO. 8000 SERIES	CHALLENGER 300 SERIES
8000	300S
8032	400D 3/4
8308	394B
8308 1/4	392B
8309	393B
8426 1/4	H371DB
8428	H363B
8432 1/4	H382B
8472 1/4	N/C
8482	N/C
8525	331
8526	351B
8526 1/4	381B
8535	310
8642	372B
8643	*373B
8646	380DB
8646 1/4	371DB
8648	390DB
8656	360DB
8660	355B
8660 RL	355B RL
8660 1/4	382B
8660 1/4 RL	382B RL
8661	354B
8737	480DB 3/4
8737 1/4	471DB 3/4
8738	460DB 3/4
8750	363B
8790	360SB
8791	390SB
8792	380SB
8792 1/4	371SB

*With Indicator

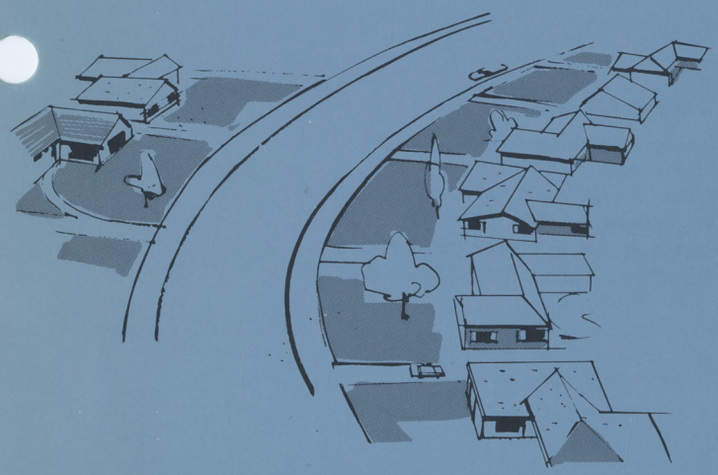
N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Standard Duty Lockset Designs

500

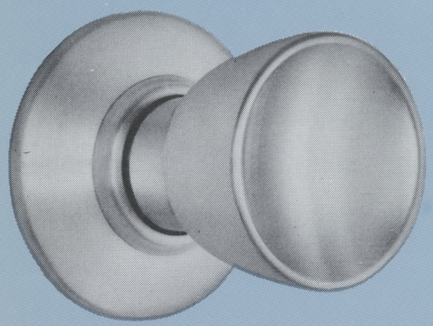
Series



CHALLENGER®

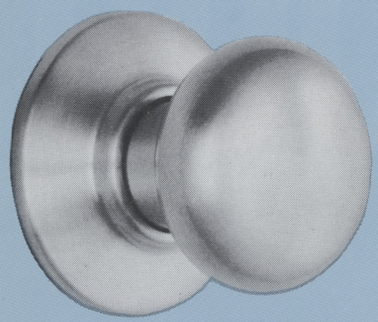
500 Series

STANDARD DUTY LOCKSET DESIGNS



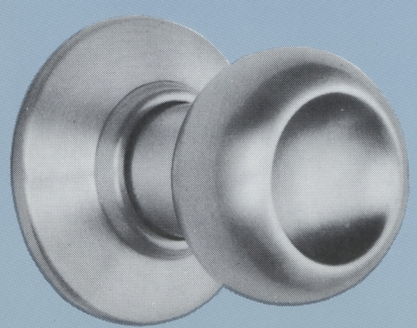
Holiday Design

Knob: 1-15/16" diameter .035" wrought, one piece seamless.
Rose: 2-1/2" diameter .035" wrought.
Projection: 2-5/16".
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28, 28G.



Venus Design

Knob: 2" diameter .035" wrought, one piece seamless.
Rose: 2-1/2" diameter .035" wrought.
Projection: 2-1/8".
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28, 28G.

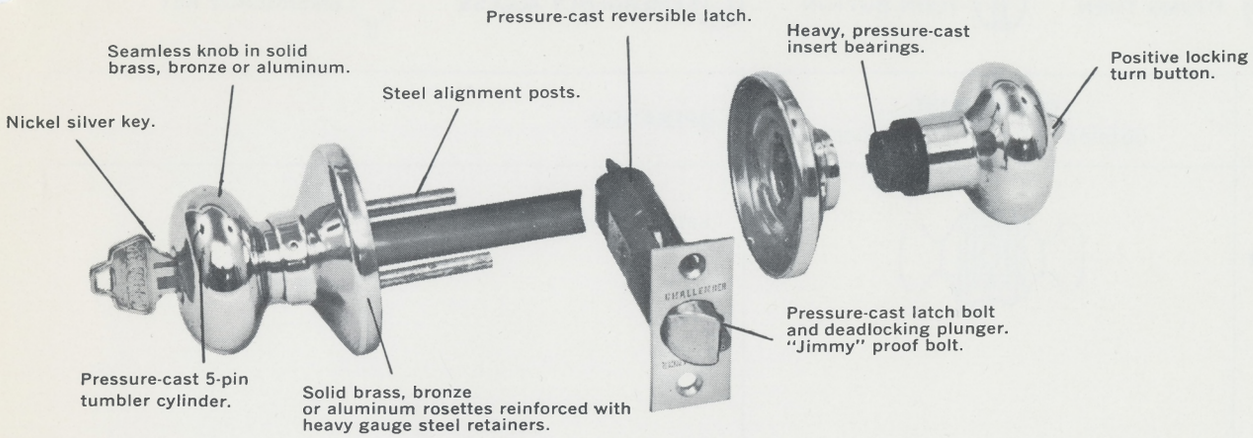


Concave Design

Knob: 2" diameter .035" wrought, one piece seamless.
Rose: 2-1/2" diameter .035" wrought.
Projection: 2-3/8".
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 10, 26, 26B, 26D, 26DB, 28, 28G.

Specifications for Challenger 500 Series

SELF-ALIGNING LATCHSETS AND LOCKSETS FOR DOORS 1¼" TO 1¾" THICK



BACKSET: 2⅜" standard, 5" when specified.

FRONT: Wrought Brass or bronze 2¼ x 1 flat front

STRIKE: Wrought Brass or bronze 2¼ x 1 13/16 regularly furnished with curved lip 15/16" to center. Template strike 2¾ x 1⅛ with curved lip 1¼" to center and with wrought box when so ordered at additional cost.

LATCH BOLT UNIT: Pressure Cast Zamak Unit 27/32" diameter for ⅞" or 15/16" diameter edge bored hole. Latchbolt ¾" x 9/16" with ⅜" throw. Deadlocking latchbolt where indicated by type. Double independent compression springs, light on latch, heavy on knob.

SPINDLE: Heat treated formed steel, 9/16" wide with .075 wall thickness.

ALIGNMENT POSTS: Steel, threaded for 8/32 through bolts.

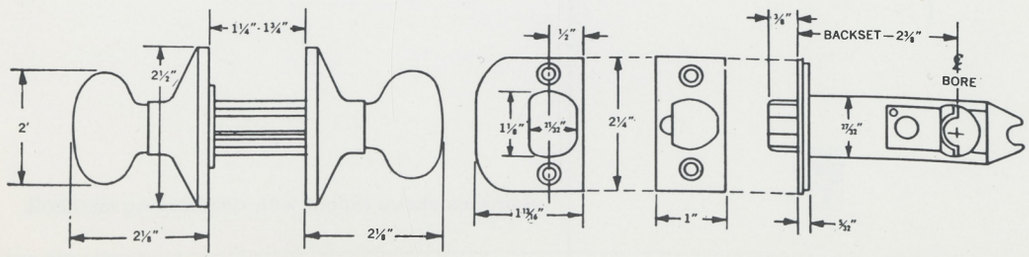
KNOB BEARINGS: Heavy Pressure Cast Zamak patented insert type ¾" diameter. Length of bearing for each knob .161".

ROSE ATTACHMENT: Outer Rose fixed. Inner Rose fastened with 2 through bolts. Both Roses reinforced with heavy 16 gauge steel retainers.

MATERIAL: Brass, bronze or aluminum trim. Pressure cast zamak, hard brass or steel working parts. All steel working parts zinc plated and dichromated.

CYLINDER: 5 pin tumbler, pressure cast zamak. Plug diameter .450. Brass pins. Nickel silver keys.

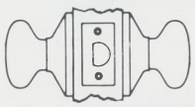
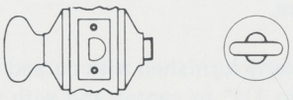
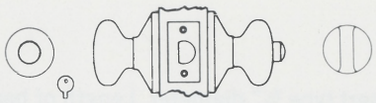
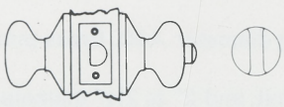
INSTALLATION: Edge bore ⅞" to 15/16" diameter for latch unit, and 2" to 2⅛" diameter for cross bore.



EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

500 Series STANDARD DUTY LOCKSETS

THUMB TURN | TURN BUTTON | EMERGENCY ACCESS | EMERGENCY KEY

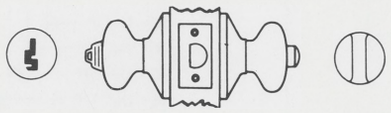
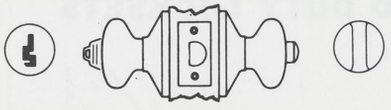
CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	OPERATION
500S **Passage Latchset**		Latch bolt by either knob at all times.
503S (formerly 520) **Closet Latchset**		Latch bolt by knob from the outside or thumb turn inside at all times. Projection of thumb turn 1¼".
510S **Privacy Lockset**		Latch bolt by either knob except when both knobs are locked by rotating the turn button in the inside knob to the vertical position. Unlocked by returning the turn button to the horizontal position. In case of emergency unlocked by use of emergency key or screwdriver in outside knob.
530S **Patio Lockset**		Latch bolt by either knob except when both knobs are locked by rotating the turn button in the inside knob to the vertical position. Unlocked by returning the turn button to the horizontal position.
530D		Same as above except with deadlocking latchbolt.

Specify Catalog Number, Design and Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

STANDARD DUTY LOCKSETS **500 Series**

PIN TUMBER CYLINDER TURN BUTTON

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	OPERATION
560SK **Exterior Lockset**		Latchbolt by either knob except when both knobs are locked by rotating the turn button in the inside knob to the vertical position or by the key in the outside knob. Unlocked by key or returning the turn button to the horizontal position. Latchbolt may be held retracted by turning inside knob counter clockwise until latchbolt is retracted and rotating turn button to the locked position.
560DK		Same as above except with deadlocking latch.
560SK-5 (5" backset) **Exterior Lockset**		Latchbolt by either knob except when both knobs are locked by rotating the turn button in the inside knob to the vertical position or by the key in the outside knob. Unlocked by key or returning the turn button to the horizontal position. Latchbolt may be held retracted by turning inside knob counter clockwise until latchbolt is retracted and rotating turn button to the locked position.
560DK-5 (5" backset)		Same as above except with deadlocking latch.
X500 **Dummy Trim**		For use as dummy trim, knobs or pulls.

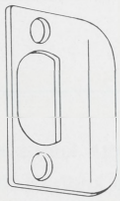
Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

500 Series STANDARD DUTY LOCKSETS

Miscellaneous:

Strikes

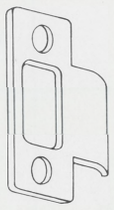


No. 1310
Standard Strike.
Size 2¼"x1⅜₁₆" furnished on all orders with 1⅝₁₆" lip length to center. Other lengths to order.

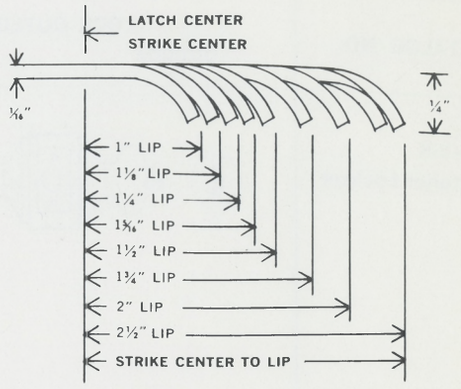
Special Strikes



No. 1312
¼" Radius Strike.
Size 2¼"x1⅜₁₆". 1⅝₁₆" lip length to center standard. Other lengths to order.



No. 1320
Template Strike.
Size 2¾"x1⅛". 1¼" lip length to center standard. Other lengths to order.

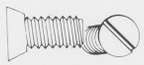




No. 1311
Wrought Box
For No. 1310, 1312 strikes. Available at extra cost.



No. 1321
Wrought Box
For No. 1320 strike. Available at extra cost.



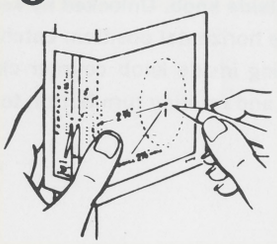
No. C-69
Machine Screw
8-32 x ½"
Flat undercut Head



No. C67
Wood Screw
8 x ¾"

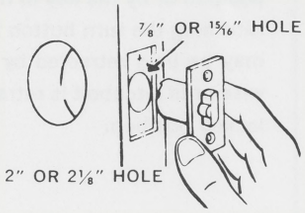
HOW TO INSTALL 500 SERIES STANDARD DUTY LOCKSETS

1 Positioning Holes

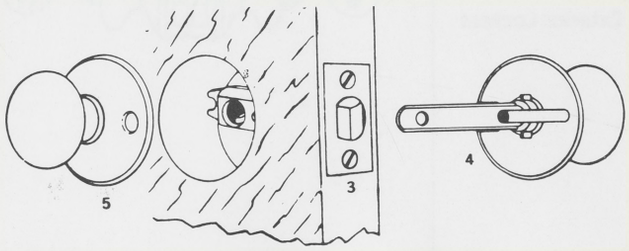


Remove cover of box for Template. Fold Template and place in position shown. Follow carefully positions indicating marking points for drilling. Suggested height from floor 36".

2 Boring – 2 Holes



Bore 2" or 2⅛" hole from both sides to center. Bore ⅞" or 1⅜₁₆" hole in edge of door to meet center of hole as indicated on Template. Shallow mortise to fit latch face. Install latch first with screws provided.

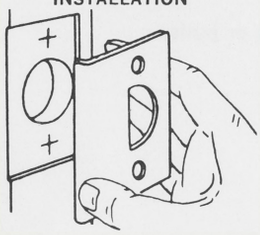


3 Insert latch bolt in ⅞" or 1⅜₁₆" hole in edge of door.

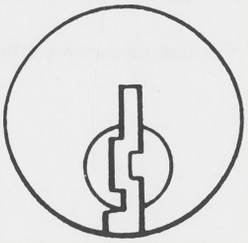
4 Insert knob and spindle unit in 2" or 2⅛" hole so that threaded posts pass through holes in latch bolt.

5 Install inner knob-rosette assembly and insert screws through rosette into posts and tighten.

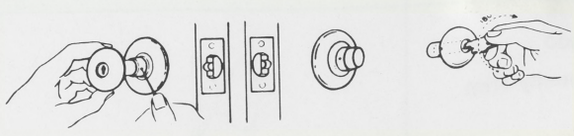
6 STRIKE PLATE INSTALLATION



Shallow mortise door jamb to align with latch bolt. Affix strike with screws provided.



CORRECT POSITION OF CYLINDER



To Reverse Cylinder

Unlock by rotating turn button in inside knob. Turn outside knob until knob keeper lines up with hole in rose. Depress keeper with awl or pointed tool while pulling out on knob, then remove knob. Insert key halfway into cylinder and turn cylinder 180°. Reinstall knob and cylinder, using key to align cylinder in lock. Do not insert key more than half way when reinstalling.

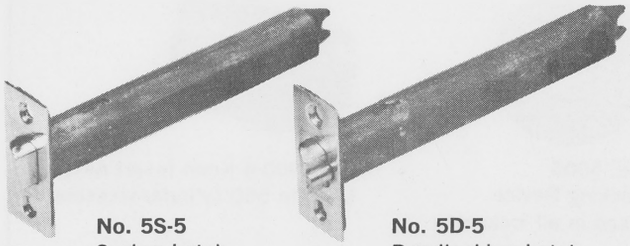
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

STANDARD DUTY LOCKSETS **500 Series**

Replacement Parts List

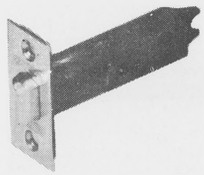
Latchbolts (Specify Catalog Number and Finish Required)

FOR ¼" RADIUS LATCH FACES SPECIFY BY ADDING "RA" TO CATALOG NO. (I.E. 5SRA)

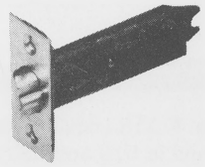


No. 5S-5
Spring Latch
5" Backset

No. 5D-5
Deadlocking Latch
5" Backset

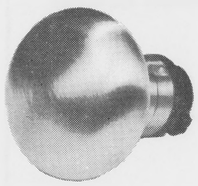


No. 5S
Spring Latch
2⅜" Backset

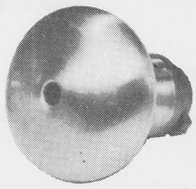


No. 5D
Deadlocking Latch
2⅜" Backset

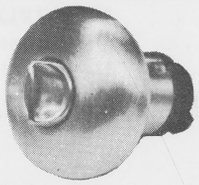
Knob Assemblies (Specify Catalog Number, Design and Finish Required)



No. 5000-1
Closed Knob Assy.



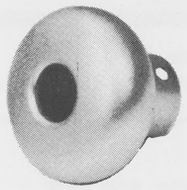
No. 5000-2
Emergency Knob Assy.



No. 5005-2
Turn Button Knob Assy.

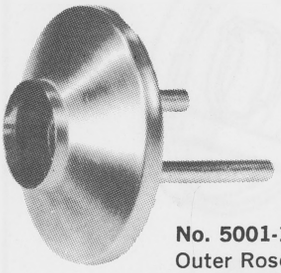


No. 5000-7
Closet Knob and
Spindle Assy.

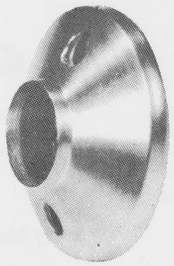


No. K3P
Cylinder Knob

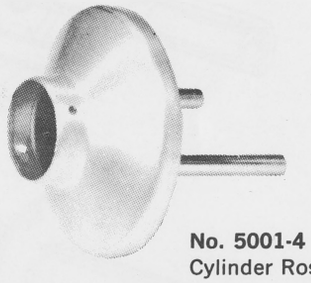
Rosette Assemblies (Specify Catalog Number and Finish)



No. 5001-1
Outer Rosette Assy.
(Non Keyed)



No. 5001-3
Inner Rosette Assy.

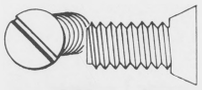


No. 5001-4
Cylinder Rosette Assy.

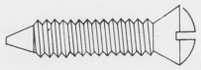
Screws (Specify Finish)



No. C67
Wood Screws
¾ x 8 F.H.



No. C69
Machine Screws
8-32 x ½
Flat Undercut Head



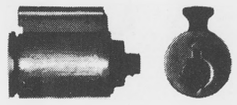
No. K-38
Thru Screws
8-32 x 1 3/16
Pointed Oval Head



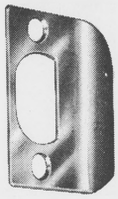
No. K39
Wood Screws
1 x 8 O.H.
For attaching X500
Dummy Trim

Cylinder (Specify Finish)

Type K Cylinder
Used in all 500 Series
Keyed Locksets



Strike Packages (Specify Finish)



No. 5SP (Specify Finish)
Contents:
1—1310 Strike
2—C67 Screws
2—K-38 Thru Screws

No. 5SPRA
Same except with
No. 1312 ¼"
Radius Strike

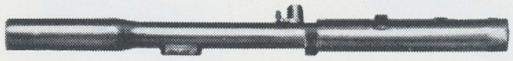
EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

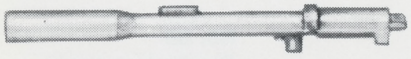
500 Series STANDARD DUTY LOCKSETS

Replacement Parts List

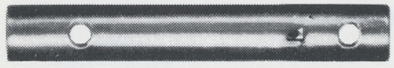
LOCKING ASSEMBLIES AND PARTS



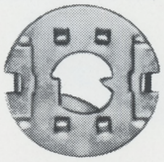
No. K 118 Locking Bar
Used in 510 and 530 locksets



No. K 118P Locking Bar
Used in 560 cylinder locksets



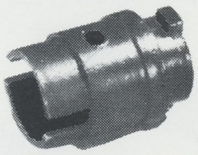
No. K 10 Spindle
Used in all locksets & latchsets



No. 5006
Locking Device
Used in all locksets



No. K 121X
Detent Spring
Used in all locksets

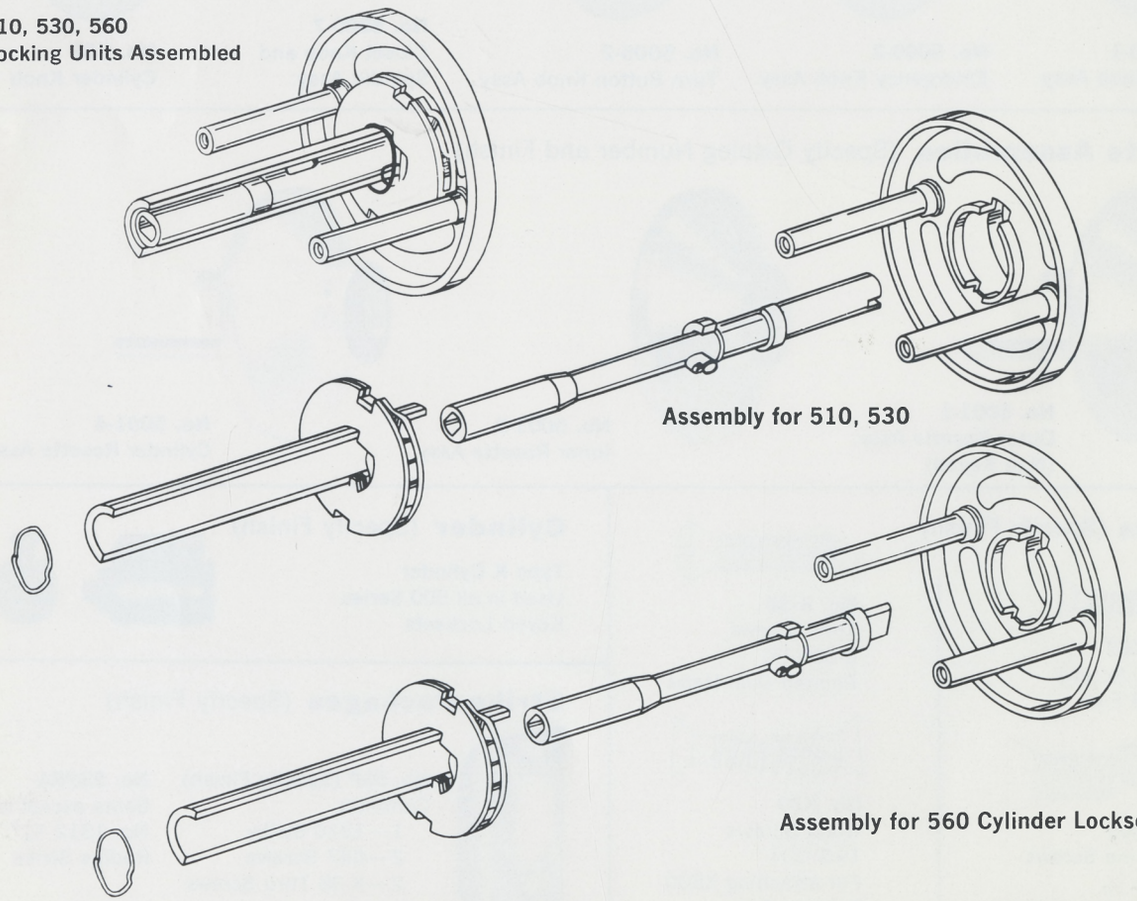


No. 5000-4 Knob Insert Assy.
Used in 560 cylinder locksets



No. K-32 Knob Keeper
Used in 560 cylinder locksets

510, 530, 560
Locking Units Assembled



Assembly for 510, 530

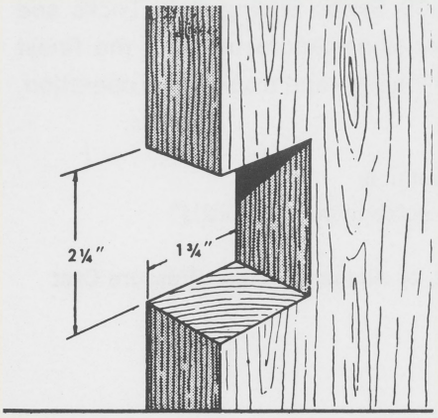
Assembly for 560 Cylinder Lockset

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2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

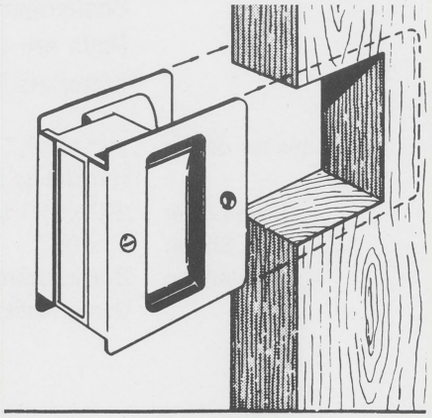
600 Series SLIDING DOOR LOCKS

Installation instructions

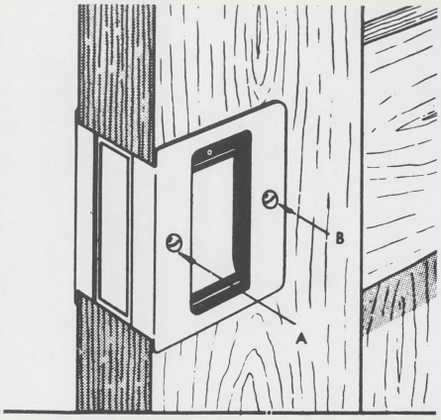
COMBINATION SLIDING DOOR AND PULL AND LOCK



❶ Cut one simple notch in door.

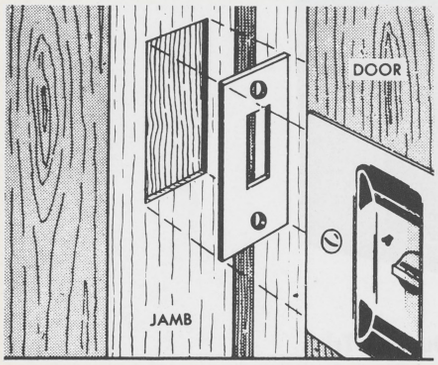


❷ Slip pull into position as shown.

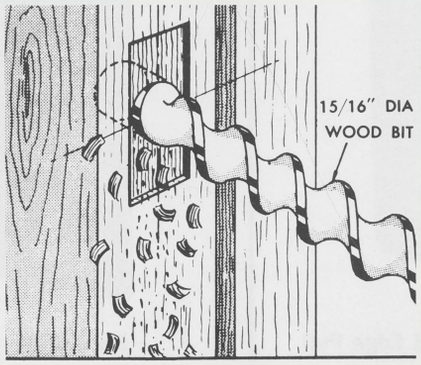


❸ (A) Fasten machine screw which tightens and automatically aligns pull. (B) Insert wood screw and tighten.

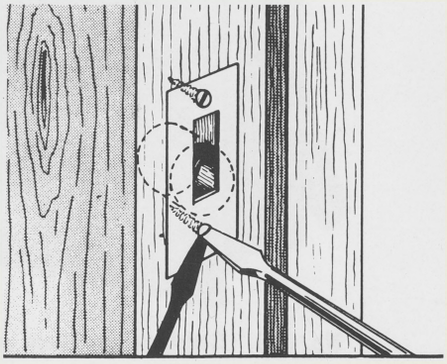
Installation of strike plate for locking set only



❶ Mark and mortise strike on jamb to correspond to lock position on door.

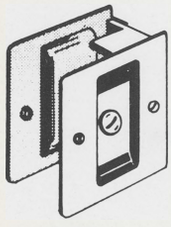


❷ Drill 15/16" diameter hole ½" deep in center of mortise.

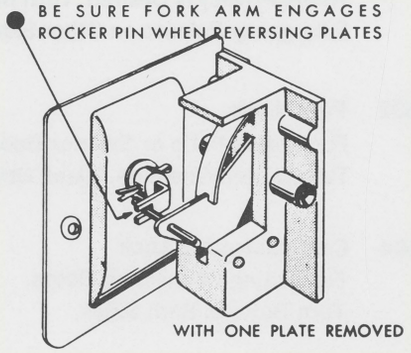


❸ Screw strike plate into position using #6 x ⅝" long flat head wood screws.

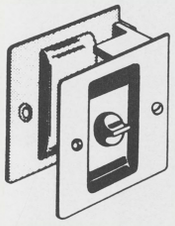
To assemble after reversing plates



BEFORE CHANGING PLATES



WITH ONE PLATE REMOVED

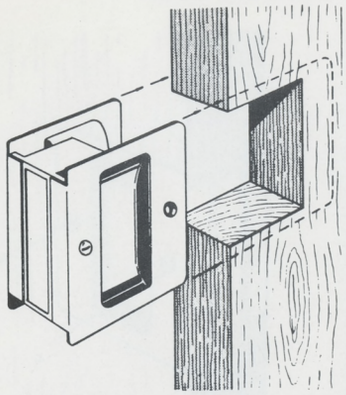


AFTER CHANGING PLATES

When it is desirable to reverse outside plates on lock assembly, first remove machine screw on each side—change plates from side to side (making sure that fork arm engages rocker pin) and re-assemble.

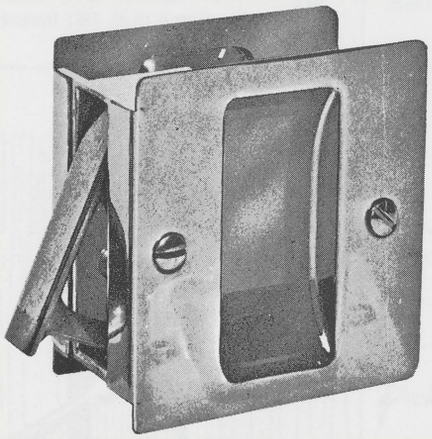
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

SLIDING DOOR LOCKS **600 Series**

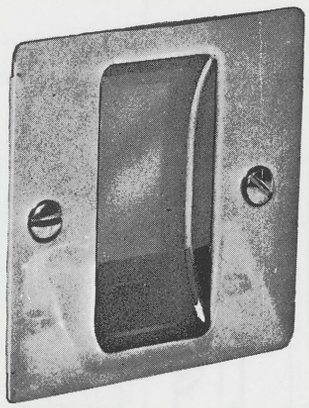


Challenger 600 Series Sliding Door Locks and Pulls are precision manufactured of the finest materials for long life and trouble free operation.

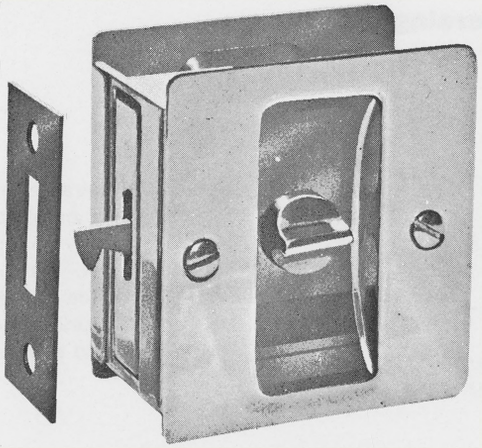
Adjustable for doors:	1⅜" to 1¾" completely reversible
Overall Size:	2½" x 2¾" for notch in door 1¾" x 2¼"
Strike:	1" x 2¼"
Materials:	Brass, Bronze, or Aluminum Trim. Pressure Cast Center Unit



No. 600 **Combination Flush and Edge Pull**
For Sliding Passage Doors
Blank Both Sides



No. X600 **Dummy Trim**
For Flush Pulls or Dummy Trim.



No. 601 **Privacy Lock**
For Sliding Bathroom, Bedroom or Other Doors Where Privacy is Desired. Turn Button One Side, Emergency Release on Other Side.

No. 602 **Patio Lock**
For Sliding Patio or Exterior Doors.
Turn Button One Side, Blank Other Side.

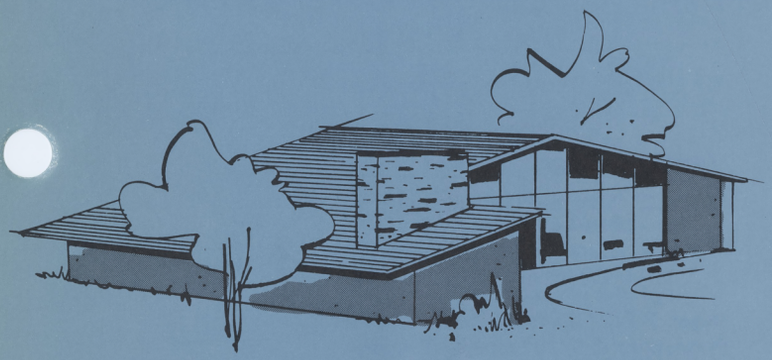
No. 604 **Communicating Lock**
For Sliding Connecting Doors.
Turn Buttons Both Sides.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Semi Heavy Duty Lockset Designs

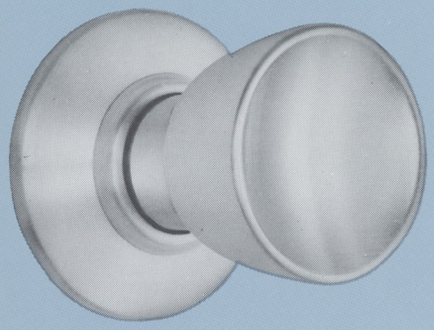
800

Series



CHALLENGER®

SEMI HEAVY DUTY LOCKSET DESIGNS



Holiday Design

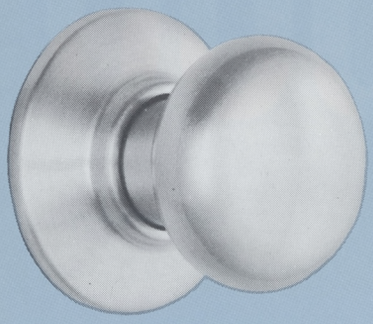
Knob: 1-15/16" diameter .035" wrought, one piece seamless.

Rose: 2-1/2" diameter .035" wrought.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum, stainless steel.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Venus Design

Knob: 2" diameter .035" wrought, one piece seamless.

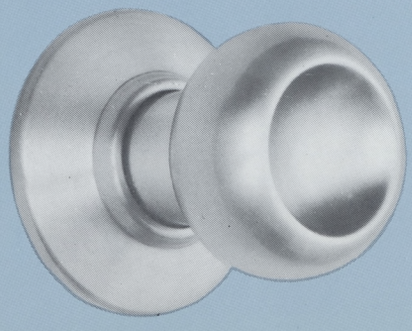
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

Rose: 2-1/2" diameter .035" wrought.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Concave Design

Knob: 2" diameter .035" wrought, one piece seamless.

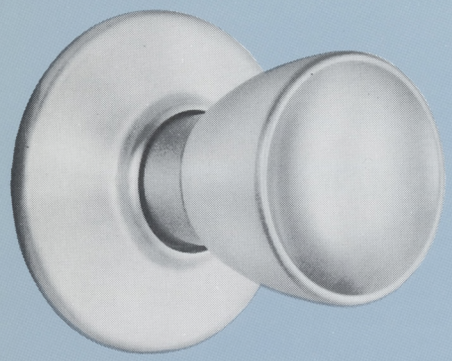
Rose: 2-1/2" diameter .035" wrought.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

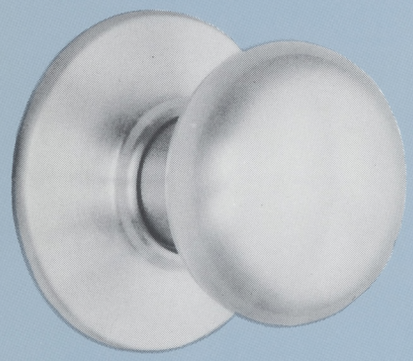
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSET DESIGNS



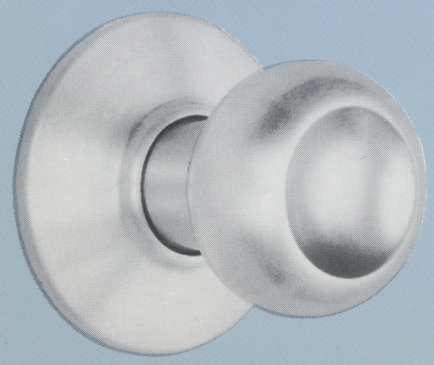
El Toro Design

Knob: 1-15/16" diameter .035" wrought, one piece seamless.
Rose: 2-13/16" diameter .035" wrought.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28.



Metro Design

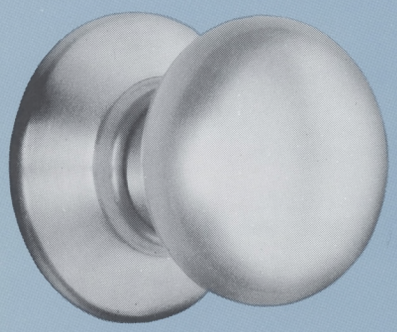
Knob: 2-1/4" diameter .035" wrought, one piece seamless.
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.
Rose: 2-13/16" diameter .035" wrought.
Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28.



Carthage Design

Knob: 2" diameter .035" wrought, one piece seamless.
Rose: 2-13/16" diameter .035" wrought.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28.

SEMI HEAVY DUTY LOCKSET DESIGNS



Meteor Design

Knob: 2-1/4" diameter .035" wrought, one piece seamless.

2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

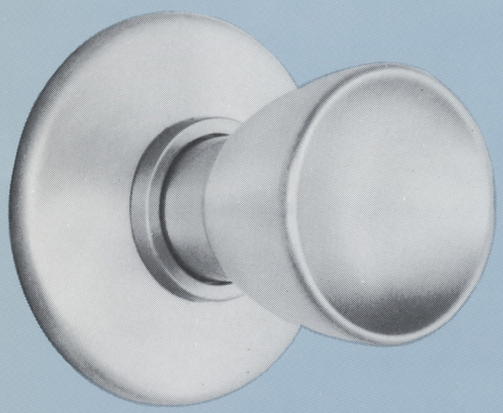
Rose: 2-1/2" diameter .035" wrought.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSET DESIGNS



Hudson Design

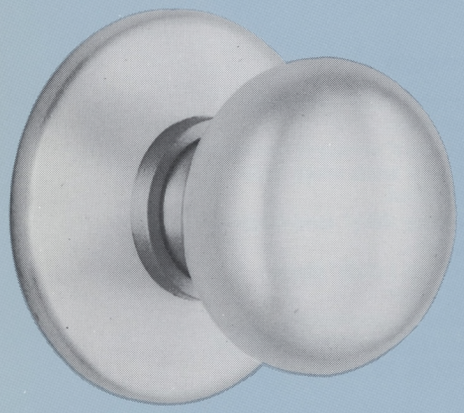
Knob: 1-15/16" diameter .035" wrought, one piece seamless.

Rose: 3" diameter .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum, stainless steel.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Monitor Design

Knob: 2-1/4" diameter .035" wrought, one piece seamless.

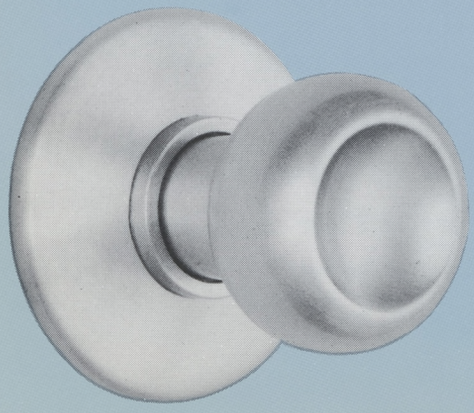
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

Rose: 3" diameter .081" cold forged, threaded both sides.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Chateau Design

Knob: 2" diameter .035" wrought, one piece seamless.

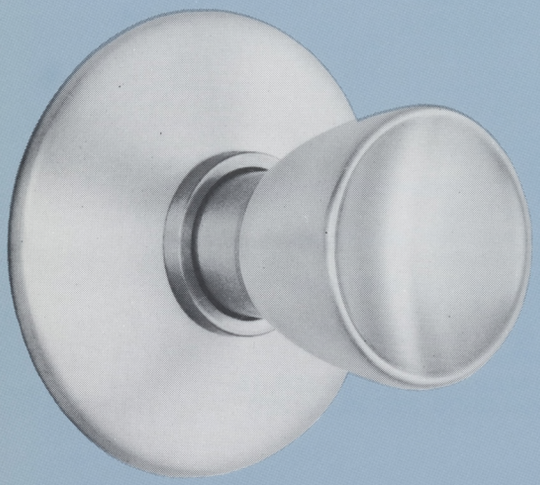
Rose: 3" diameter .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSET DESIGNS



Hallmark Design

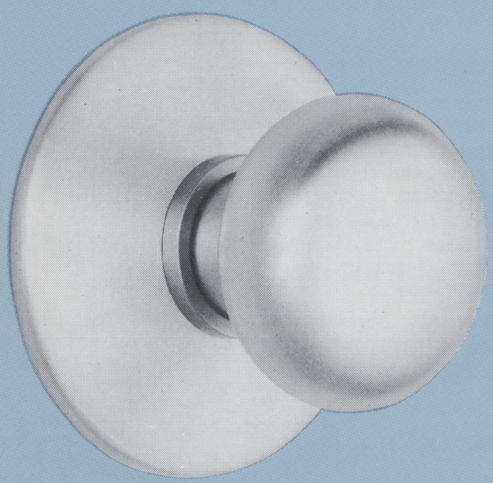
Knob: 1-15/16" diameter .035" wrought, one piece seamless.

Rose: 3-1/2" diameter .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum, stainless steel.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Manhattan Design

Knob: 2-1/4" diameter .035" wrought, one piece seamless.

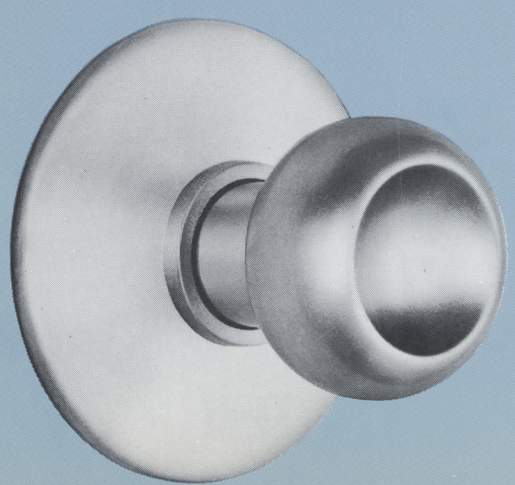
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

Rose: 3-1/2" diameter .081" cold forged, threaded both sides.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Ciro Design

Knob: 2" diameter .035" wrought, one piece seamless.

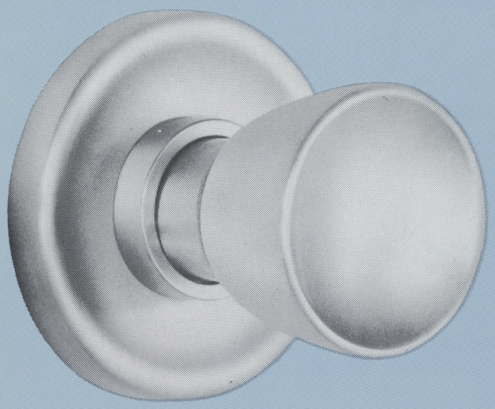
Rose: 3-1/2" diameter .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSET DESIGNS



Fair Design

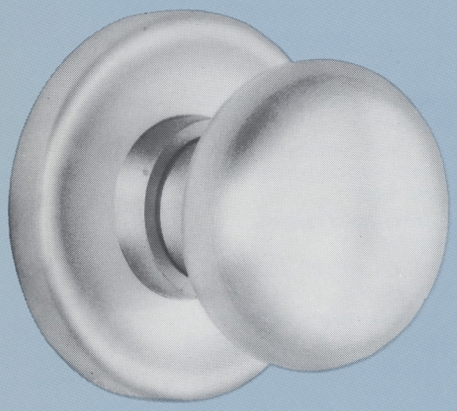
Knob: 1-15/16" diameter .035" wrought, one piece seamless.

Rose: 3" diameter .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum, stainless steel.

Standard Finishes: US3, 4, 9, 10, 10B, 19 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



El Dorado Design

Knob: 2-1/4" diameter .035" wrought, one piece seamless.

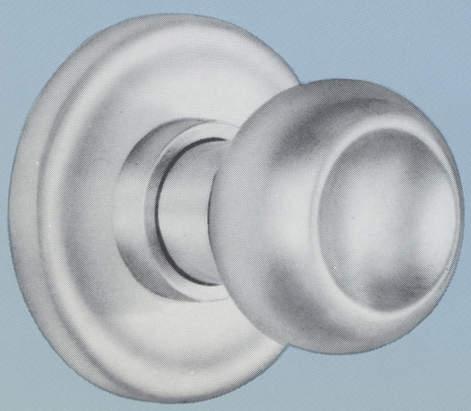
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

Rose: 3" diameter .081" cold forged, threaded both sides.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Citation Design

Knob: 2" diameter .035" wrought, one piece seamless.

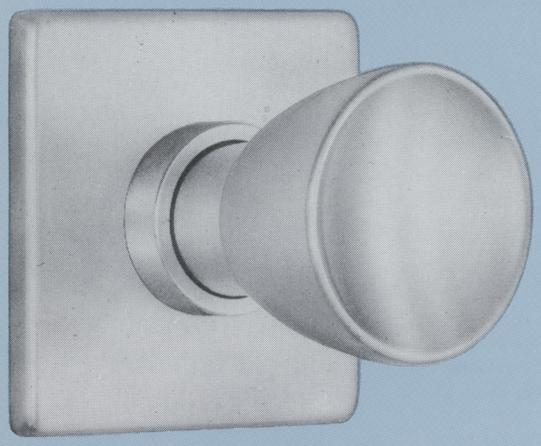
Rose: 3" diameter .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSET DESIGNS



Piper Design

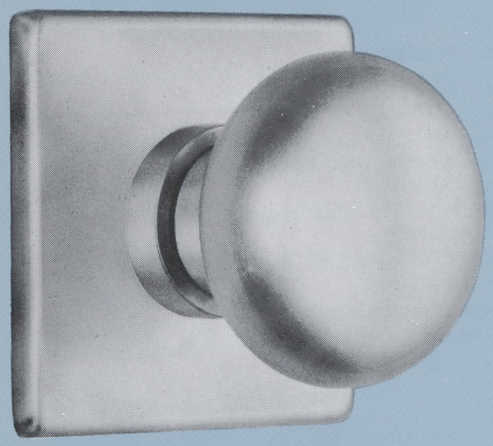
Knob: 1-15/16" diameter .035" wrought, one piece seamless.

Rose: 3" square .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum, stainless steel.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Mars Design

Knob: 2-1/4" diameter .035" wrought, one piece seamless.

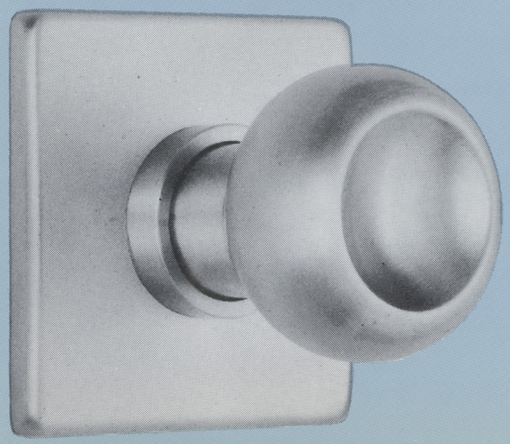
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

Rose: 3" square .081" cold forged, threaded both sides.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Polaris Design

Knob: 2" diameter .035" wrought, one piece seamless.

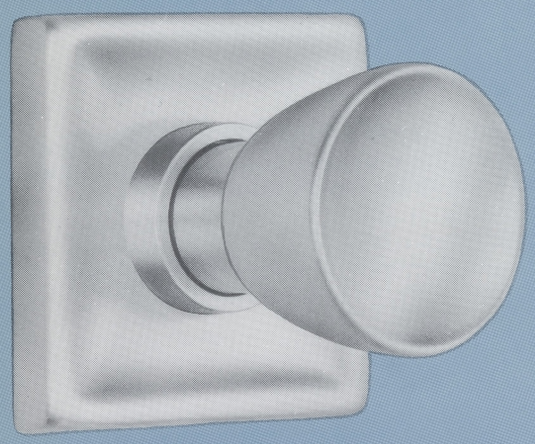
Rose: 3" square .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSET DESIGNS



Aurora Design

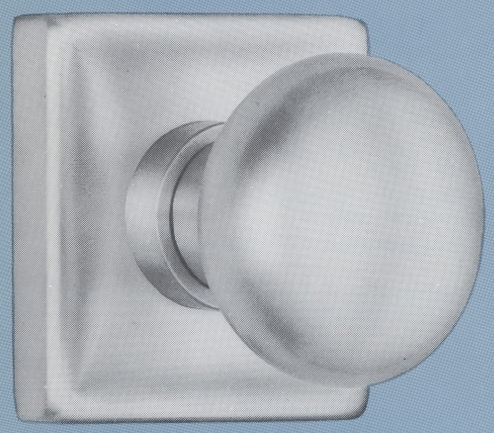
Knob: 1-15/16" diameter .035" wrought, one piece seamless.

Rose: 3" square .081" cold forged, threaded both sides.

Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Vulcan Design

Knob: 2-1/4" diameter .035" wrought, one piece seamless.

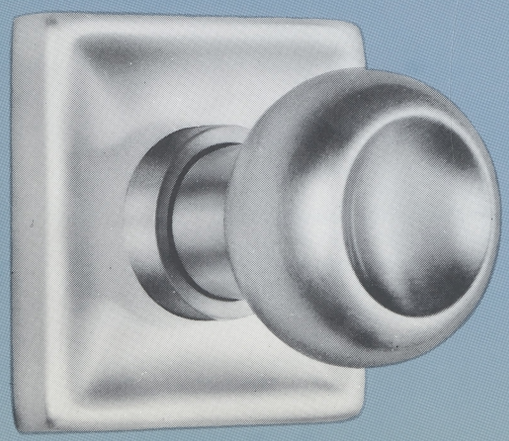
2-1/4" diameter .060" wrought reinforced, two piece cylinder knob when type "C" cylinder is specified.

Rose: 3" square .081" cold forged, threaded both sides.

Projection: 2-5/16" on 1-3/8" door; 2-1/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.



Centarus Design

Knob: 2" diameter .035" wrought, one piece seamless.

Rose: 3" square .081" cold forged, threaded both sides.

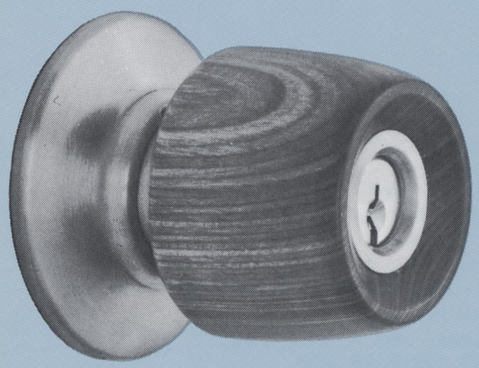
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.

Material: Brass, bronze, aluminum.

Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

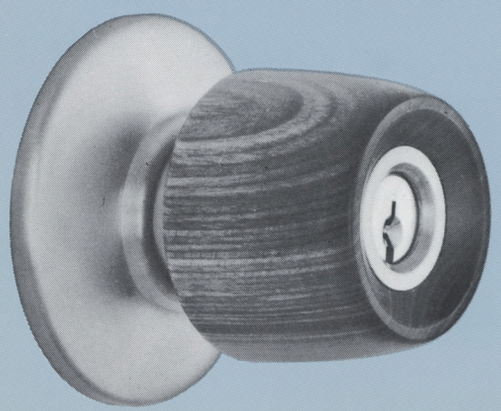
SEMI HEAVY DUTY LOCKSET DESIGNS

NOTE: COCOBOLO WOOD KNOBS. Because of the variation of the color in the Cocobolo wood, there can be no assurance that any two knobs on any one job will match.



W-Vista Design

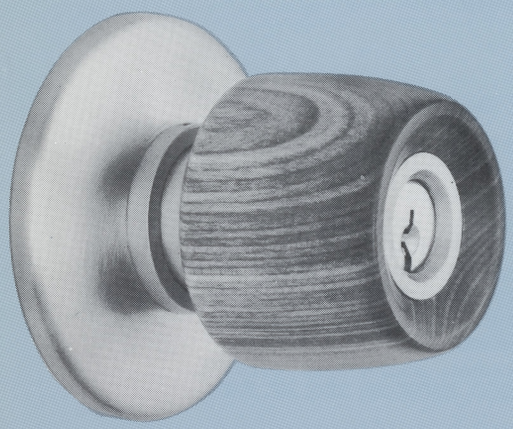
Knob: 2-1/16" diameter, wood.
Rose: 2-1/2" diameter .035" wrought.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Mystic Design

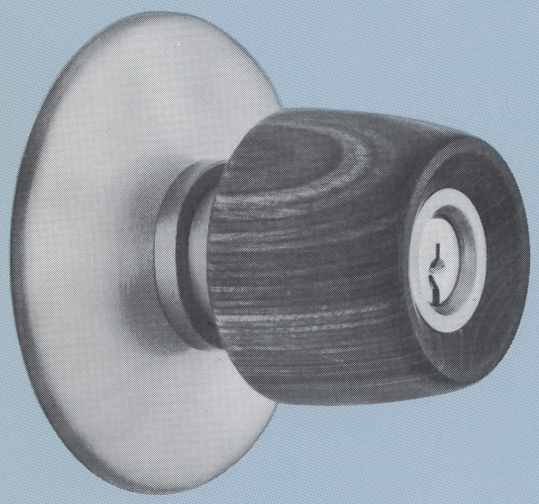
Knob: 2-1/16" diameter, wood.
Rose: 2-13/16" diameter .035" wrought.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28.

SEMI HEAVY DUTY LOCKSET DESIGNS



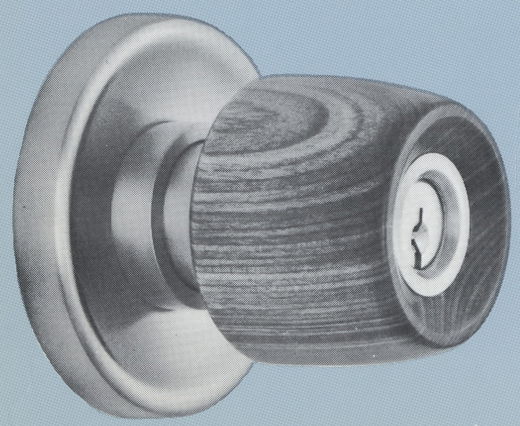
W-Romona Design

Knob: 2-1/16" diameter, wood.
Rose: 3" diameter .081" cold forged, threaded both sides.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Balboa Design

Knob: 2-1/16" diameter wood.
Rose: 3-1/2" diameter .081" cold forged, threaded both sides.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

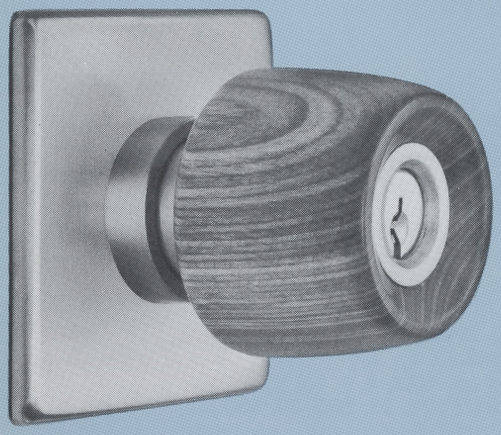


W-Futura Design

Knob: 2-1/16" diameter, wood.
Rose: 3" diameter .081" cold forged, threaded both sides.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

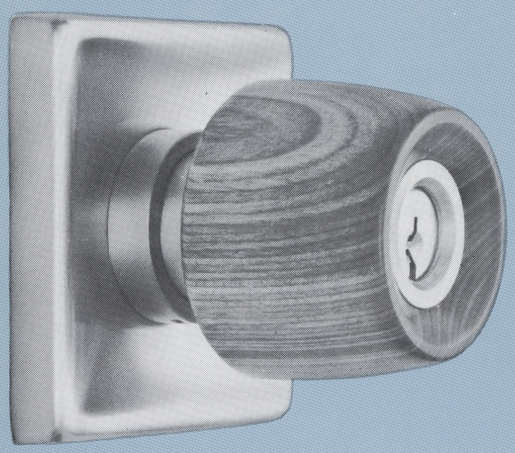
800 Series

SEMI HEAVY DUTY LOCKSET DESIGNS



W-Marlin Design

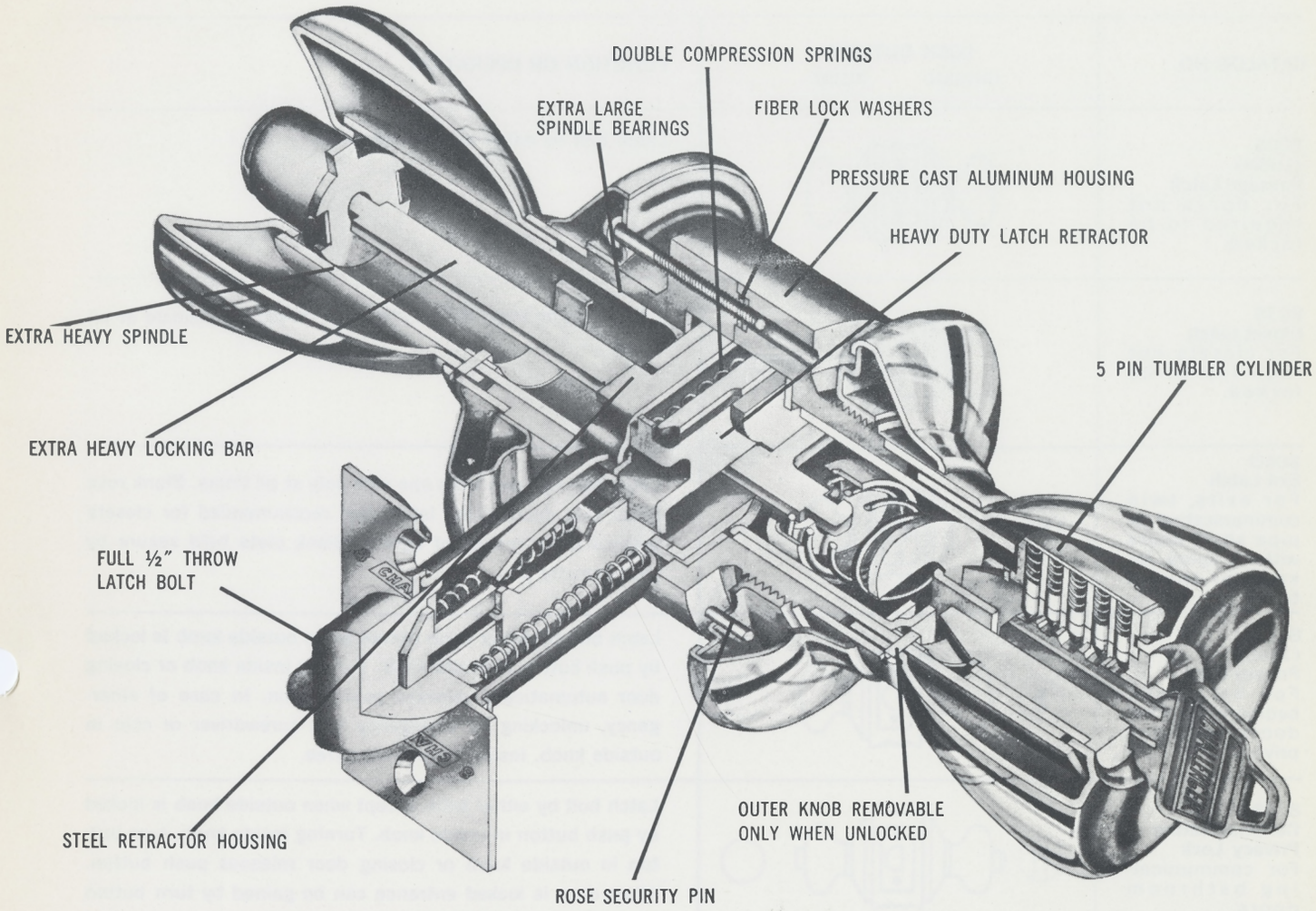
Knob: 2-1/16" diameter, wood.
Rose: 3" square .081" cold forged, threaded both sides.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Atwood Design

Knob: 2-1/16" diameter, wood.
Rose: 3" square .081" cold forged, threaded both sides.
Projection: 2-9/16" on 1-3/8" door; 2-3/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

SEMI HEAVY DUTY LOCKSETS **800 Series**



Specifications for the Challenger 800 Series

Semi-heavy duty cylindrical latchsets and locksets for doors 1⅜" to 1¾" thick.

CYLINDRICAL HOUSING: Pressure cast aircraft aluminum 2 1/16" diameter for 2⅛" hole in door.

BACKSET: 2⅜" standard. 2¾", 5" or greater when specified.

FRONT: Wrought brass, bronze or aluminum. 2¼" x 1" flat front standard. 2¼" x 1⅛" front beveled ⅛" in 2" with 2¾" backset.

STRIKE: Wrought brass or bronze 2¼" x 1 3/16" regularly furnished. 2¾" x 1⅛" with curved lip 1¼" to center and wrought box when so ordered. Other lengths of curved lips to order.

LATCH BOLT UNIT: Steel zinc plated, dichromated 13/16" diameter for ⅞" hole in edge or door. Solid brass or nickel silver latch bolt with ½" throw regularly furnished. ¾" throw when so ordered. Deadlocking latch bolt where indicated by type.

KNOB SPINDLE BEARINGS: .915" diameter. Length of bearing 1" for each knob.

ROSE ATTACHMENT: Outer rose threaded, held firm by security pin. Inner snap-on rose fastened with 2 machine screws. Fiber lock washers prevent loosening of screws.

MATERIAL: Brass, bronze or aluminum trim. All steel parts zinc plated and dichromated.

CYLINDER: 5 pin tumbler furnished in type C, E or Z. 6 pin tumbler type C available when specified.

MEETS THE REQUIREMENTS OF FEDERAL SPECIFICATIONS FF-H-106a, SERIES 160.

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

800 Series SEMI HEAVY DUTY LOCKSETS

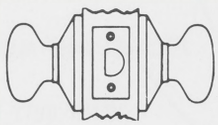
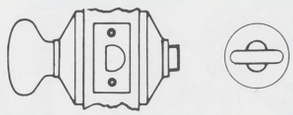
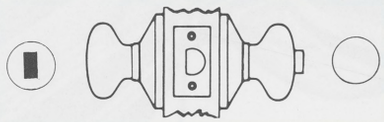
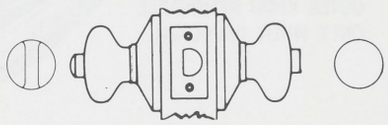
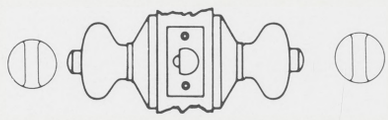
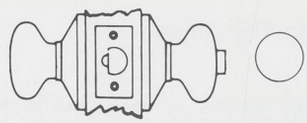
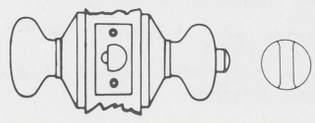
PUSH BUTTON
The Push Button provides a non lock-out feature which unlocks automatically when the inside knob is turned.

TURN BUTTON
The Turn Button shows the door is locked when in the horizontal position, or unlocked in the vertical position. This button must be rotated manually to lock or unlock.

EMERGENCY ACCESS
The Emergency Button provides emergency access. Operated by emergency key, coin or screwdriver.

BP BLANK PLATE

THUMB TURN

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
800S (160N) **Passage Latch** For doors not required to be locked.		Latch bolt by either knob at all times.
803S **Closet Latch** For closets not required to be locked.		Latch bolt by knob from outside or thumb turn inside at all times.
804D **Exit Latch** For exits, twin communicating or pipe shaft doors without space for knob or thumb turn.		Latch bolt by knob from one side only at all times. Blank rose other side. deadlocking latch. Not recommended for closets without other means of egress. Blank plate held secure by rose security pin.
810S (160L) **Privacy Lock** For bathroom, bedroom or other doors requiring privacy.		Latch bolt by either knob **except when outside knob is locked** by push button in inside knob. Turning inside knob or closing door automatically releases push button. In case of emergency, unlocking by emergency key, screwdriver or coin in outside knob. Inside knob always free.
810ST **Communicating Privacy Lock** For communicating bathroom doors.		Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob, turn button in outside knob or closing door releases push button. When door is locked entrance can be gained by turn button in outside knob. Inside knob always free.
812D (160M) **Communicating Lock** For connecting doors.		Latch bolt by either knob except when both knobs are locked simultaneously by turn button in either knob. Door can be opened only when turn buttons in both knobs are in unlocked position. Deadlocking latch. Not recommended for doors in rooms without another entrance.
820D (160P) **Inner Office Lock** For doors requiring locking only when room is occupied.		Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob or closing door automatically releases push button. Inside knob always free. Deadlocking latch.
830D (160Q) **Exit Lock** For exit doors not requiring entrance by key.		Latch bolt by either knob except when outside knob is locked by turn button in inside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.

Specify Catalog Number, Design and Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

SEMI HEAVY DUTY LOCKSETS **800 Series**

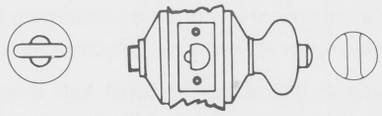
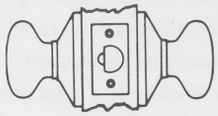
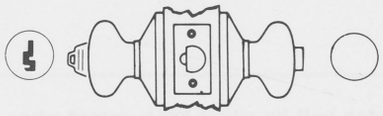
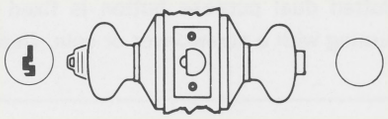
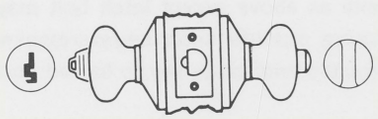
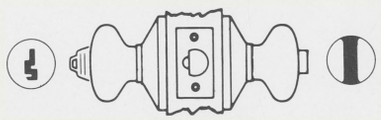
PUSH BUTTON
The Push Button provides a non lock-out feature which unlocks automatically when the inside knob is turned.

TURN BUTTON
The Turn Button shows the door is locked when in the horizonal position, or unlocked in the vertical position. This button must be rotated manually to lock or unlock.

DUAL PURPOSE BUTTON
The Dual Purpose Button combines the convenience of the push button and the security of the turn button. The button will unlock automatically when the slot is in the vertical position or it may be rotated to the horizontal position where it will remain locked until returned manually.

THUMB TURN

REGULAR CYLINDER

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
833D **Twin Communicating Lock** For twin communicating doors without space for knob.		Latch bolt by thumb turn from outside or knob inside except when thumb turn is locked by turn button in inside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.
840D (160NX) **Exit Latch** For permanently locked exit doors.		Latch bolt by inside knob at all times. Outside knob always rigid. Deadlocking latch.
850DC (160B) 850DE ——— 850DZ ——— **Office Lock** For office doors.		Latch bolt by either knob except when outside knob is locked by push button in inside knob, then by key in outside knob. Inside knob always free. Turning inside knob or key in outside knob automatically releases push button in inside knob. Push button does not release when closing door. Deadlocking latch.
855DC (160B mod.) 855DE ——— 855DZ ——— **Dormitory Lock** For dormitory bedroom doors or public restrooms where privacy is desired.		Latch bolt by either knob except when outside knob is locked by push button in inside knob or ¼ counterclockwise turn of key in outside knob. Inside knob always free. Turning inside knob, shutting door or a ¼ clockwise turn of the key in outside knob will automatically unlock and release push button. Deadlocking latch.
860DC (160A) 860DE ——— 860DZ ——— **Exterior Lock** For entrance or office doors.		Latch bolt by either knob except when outside knob is locked by turn button in inside knob, then by key in outside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.
870DC 870DE 870DZ **Exterior Lock** For entrance of office doors.		Latch bolt by either knob except when outside knob is locked by dual purpose button in inside knob, then by key in outside knob. Inside knob always free. Turning inside knob or key in outside knob releases button except when slotted dual purpose button is fixed in locked position by turning with a screwdriver or coin. Deadlocking latch.

Specify Catalog Number, Design and Finish

EATON YALE & TOWNE INC
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

800 Series SEMI HEAVY DUTY LOCKSETS

SHUT OUT BUTTON

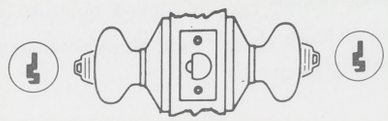
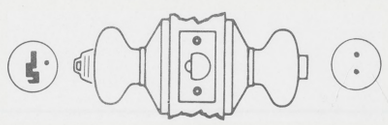
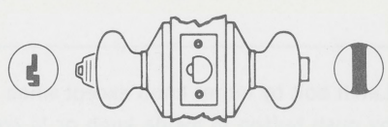
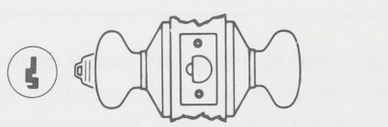
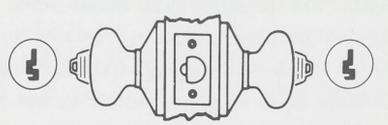
The Shut Out Button found in hotel locksets will automatically unlock unless it is rotated by a special spanner key thus shutting out all keys except the Emergency key. The shut out button will not rotate accidentally or without the use of the spanner key.

DUAL PURPOSE BUTTON

The Dual Purpose Button combines the convenience of the push button and the security of the turn button. The button will unlock automatically when the slot is in the vertical position or it may be rotated to the horizontal position where it will remain locked until returned manually.

INDICATOR CYLINDER

REGULAR CYLINDER

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
871DC 871DE **Entrance Lock** For vestibules, office building restrooms, or apartment house entrance doors. 871DCHB 871DEHB With hold-back feature.		Latch bolt by either knob except when outside knob is locked by a full turn of key in inside knob then by key in outside knob. Inside knob always free. Deadlocking latch. Same as above except latch bolt may be held retracted by turning outside knob counterclockwise until latchbolt is retracted and rotate key in inside knob to locked position.
872DC 872DE **Hotel Lock** For hotel guest room doors.		Outside knob always rigid. Latch bolt by inside knob at all times and by all keys in outside knob except when push button in inside knob is depressed shutting out all (keys) except emergency Master key and projecting visual occupancy indicator on face of cylinder. Turning inside knob or closing door automatically releases push button, except when shut out button is rotated with special spanner key.
877DC (160E) 877DE ——— 877DZ ——— **Service Station Lock** For public rest room doors where privacy is desired. (Formerly 870DAP.)		Latch bolt by either knob except when outside knob is locked by dual purpose button in inside knob, then by key in outside knob. Inside knob always free. Closing door, turning inside knob or key in outside knob releases button, except when slotted dual purpose button is fixed in locked position by turning with a screwdriver or coin. Deadlocking latch.
880DC (160R) 880DE ——— 880DZ ——— **Classroom Lock** For classroom or utility room doors. 880DCHB 880DEHB With hold-back feature.		Latch bolt by either knob except when outside knob is locked by a full turn of key in outside knob. Inside knob always free. Deadlocking latch. Same as above except latch bolt may be held retracted by turning outside knob counterclockwise until latchbolt is retracted and rotate key to locked position.
881DC 881DE **Communicating Lock** For communicating or store entrance doors.		Latch bolt by either knob except when full turn of key locks its own knob only. Deadlocking latch.

Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.

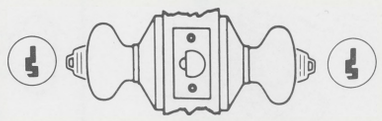
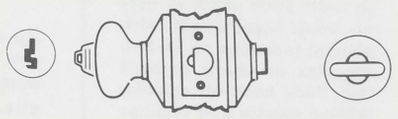
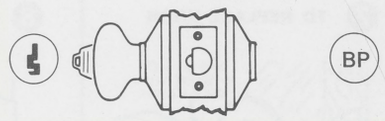
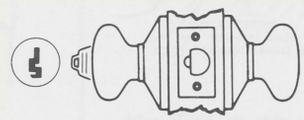
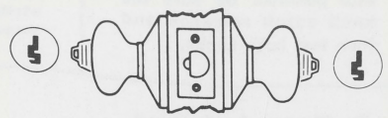
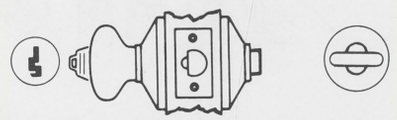
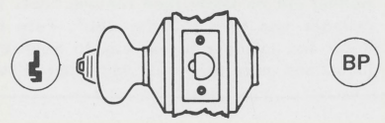
CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

806R

SEMI HEAVY DUTY LOCKSETS **800 Series**

BP BLANK PLATE THUMB TURN REGULAR CYLINDER

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
882DC 882DE **Store Door Lock** For store entrance or communicating doors. 882DCHB 882DEHB With hold-back feature.		Latch bolt by either knob except when both knobs are locked simultaneously by key in either knob. Deadlocking latch. Same as above except latch bolt may be held retracted by turning inside knob counterclockwise until latch bolt is retracted and rotate key in inside knob to locked position.
883DC 883DE 883DZ **Closet Lock** For closet doors.		Latch bolt by knob from outside or thumb turn inside except when outside knob is locked by full turn of key in outside knob. Inside thumb turn always free. Deadlocking latch.
884DC 884DE 884DZ **Cabinet Lock** For closets, cabinets or pipe shaft doors. Without space for knob or thumb turn.		Latch bolt by knob from outside except when outside knob is locked by full turn of key in outside knob. Deadlocking latch. Not recommended for rooms without other means of egress. Blank plate held secure by rose security pin.
890DC (160D) 890DE ——— 890DZ ——— **Store Room Lock** For store room or exit doors.		Latch bolt by key in outside knob or by inside knob at all times. Inside knob always free. Outside knob always rigid. Deadlocking latch.
891DC 891DE **Fixed Knob Lock** For permanently locked passage doors.		Latch bolt by key in either knob at all times. Both knobs always rigid. Deadlocking latch.
893DC 893DE 893DZ **Closet Lock** For key operated utility closet doors.		Latch bolt by key in outside knob or by thumb turn inside at all times. Thumb turn always free. Knob always rigid. Deadlocking latch.
894DC 894DE 894DZ **Cabinet Lock** For key operated closet, cabinet or pipe shaft doors. Without space for knob or thumb turn.		Latch bolt by key in outside knob at all times. Blank rose inside. Knob always rigid. Deadlocking latch. Not recommended for closets without other means of egress. Blank plate held secure by rose security pin.

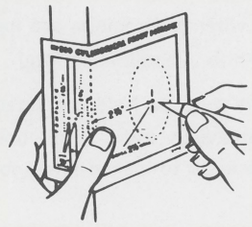
Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

800 Series SEMI HEAVY DUTY LOCKSETS

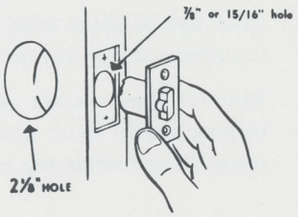
How to Install the CHALLENGER No. 800 Series Semi-Heavy Duty Cylindrical Latchsets and Locksets

❶ POSITIONING HOLES



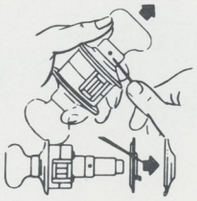
Fold Template and place in position shown. Follow carefully positions indicating marking points for drilling. Suggested height from floor 38".

❷ BORING – 2 HOLES



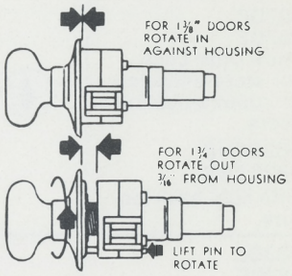
Bore 2⅛" hole from both sides to center. Bore ⅞" or 15/16" hole in edge of door to meet center of 2⅛" hole as indicated on Template. Shallow mortise to fit latch face. Install latch first with the screws provided.

❸ REMOVE INSIDE KNOB AND ROSETTE



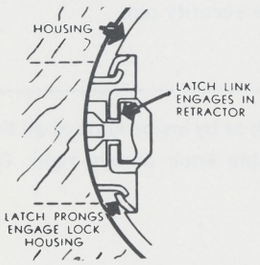
Depress knob catch in hole on knob mechanism with pointed tool such as an awl, ice pick or sharp pointed tool. Slide knob off spindle, remove rosette and retainer plate.

❹ ADJUST TO DOOR THICKNESS



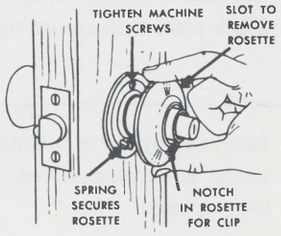
For doors 1⅜" to 1¾". Lock will adjust to fit door thickness by rotating outside rosette. For doors over 1¾" special lock required.

❺ INTERLOCK RETRACTOR IN LATCH



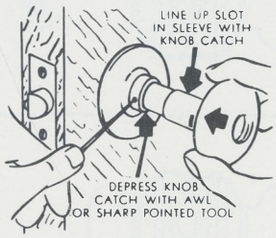
With latch in place, install lock in door making sure that lock housing engages with latch prongs and retractor interlocks with the latch bar.

❻ SECURE RETAINER PLATE



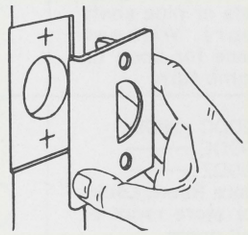
Place retainer plate in position and tighten up with machine screws. Align cut out on rosette with spring on retainer plate. Press rosette firmly to snap on.

❼ TO REPLACE KNOB



Line up slot in knob with knob catch. Depress catch with awl or sharp pointed tool and slide knob over and into position. Be sure the knob catch releases and then test both knobs.

❽ STRIKE PLATE INSTALLATION



Shallow mortise door jamb to align with latch bolt. Affix strike with two ¾" x 8 screws provided.

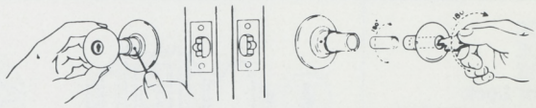
To Change Hand of Lock



WITH "C" CYLINDER 2 PIECE KNOB

First unlock by releasing button in inside knob. Turn outside knob until keeper aligns under hole in knob neck. Depress keeper and pull out on knob simultaneously. Rotate knob and bushing 180° and re-install by depressing keeper, pushing knob toward lock.

To Change Lock Hand



WITH "E" AND "Z" CYLINDER ONE PIECE KNOB

To change Hand Pin Tumbler, first unlock by releasing button in inside knob. Turn outside knob until knob keeper lines up with hole in knob neck. Depress keeper with awl or pointed tool while pulling out on knob, then remove knob. Insert key half way into cylinder and turn cylinder 180°. Turn bushing 180°. Reinstall knob and cylinder, using key to align cylinder in lock. Do not insert key more than half way when reinstalling.

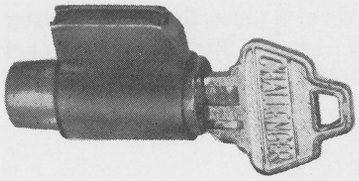
FOR DOORS 1⅜" to 1¾" THICK

Note: Warranty is invalidated if parts other than those furnished, are used on job.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

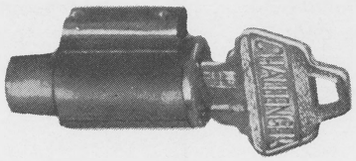
SEMI HEAVY DUTY LOCKSETS **800 Series**

Pin Tumbler Cylinders Available in 800 Series



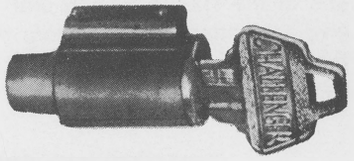
C Cylinder

Construction: Brass.
5 or 6 pin tumbler.
Plug diam: .500
Brass pins.
Used in two piece knobs.
Available in the following designs: Metro, Mars and Venus.



E Cylinder

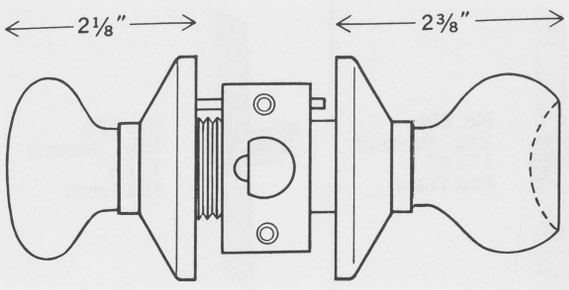
Construction: Brass.
5 pin tumbler.
Plug diam: .450
Brass pins.
Used in one piece knobs.
Available in all functions and designs.



Z Cylinder

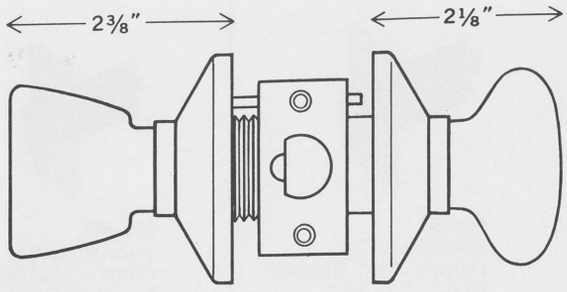
Construction: Zamak.
5 pin tumbler.
Plug diam: .450
Brass pins.
Used in one piece knobs.
Available only on functions and designs as catalogued.

Dimensions of 800 Series



DESIGNS **Metro** **Mars**

DESIGNS **Concave** **Polaris**



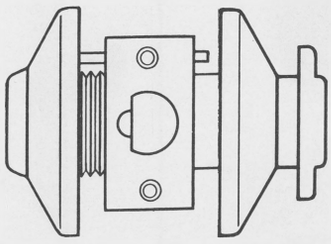
DESIGNS **Holiday** **Piper**

DESIGN **Venus**

PROJECTIONS SHOWN ABOVE ARE FOR 1¾" DOORS

BLANK PLATE

Projection 5/16" on all thickness doors. Blank plate held secure by exclusive rose security pin.



THUMB TURN

Projection
1½" on 1⅜" door;
1⅜" on 1¾" door.

EATON YALE & TOWNE INC.

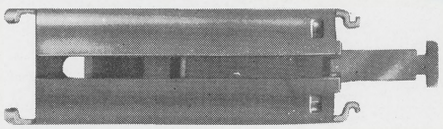
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

809R

800 Series SEMI HEAVY DUTY LOCKSETS

Backset Links

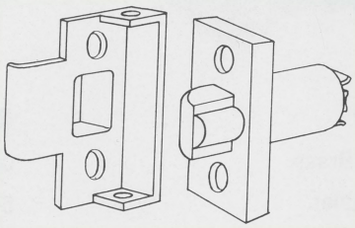
When it is desirable to move the knob toward the center of the door it can be done easily by adding a backset link to the standard latch unit. These are available to give a standard backset from the edge of the door of 5", 7", 10", or 18". Special sizes are also available. Can be provided with sleeve for hollow metal doors.



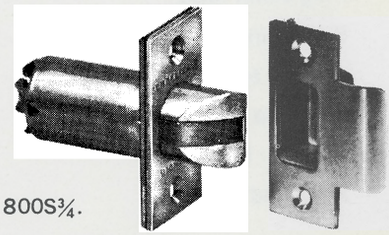
Catalog No.	For Backset
801-5	5"
801-7	7"
801-10	10"
801-18	18"

Rabbeted Front & Strike

Rabbeted Fronts and Strikes available at extra cost for ½" Rabbet. Available with 2⅜" or 2¾" backset. Backset measured on long side of Rabbet. Specify by adding "Rab" to catalogue No., i.e. 800SRAB. 2⅜" backset will be furnished unless 2¾" backset is specified.



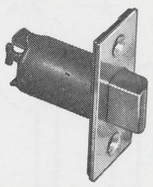
Latchbolt—¾" Throw and Deep Box Strike



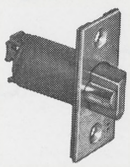
Specify by adding ¾ to catalogue number; i.e.: 800S¾.

Special Long Face Latch Units.

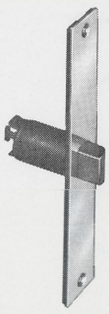
Faces made to Standard Mortise Template of Hollow Metal Association.
Furnished with ½" 12-24 machine screws.



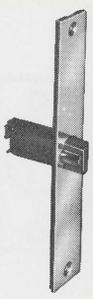
No. 8S
Furnished Flat Front—2⅜" Backset
Size 1" x 2¼"



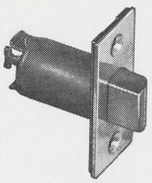
No. 8D
Furnished Flat Front—2⅜" Backset
Size 1" x 2¼"



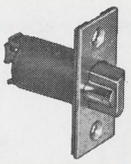
No. 8SL
2⅜" Backset
1"x8"
Flat Front



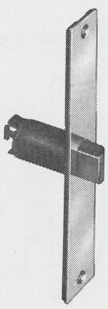
No. 8DL
2⅜" Backset
1"x8"
Flat Front



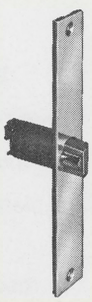
No. 8S-2¾
Regularly Furnished Beveled ⅛" in 2".
size 1⅛" x 2¼
2¾" Backset



No. 8D-2¾
Regularly Furnished Beveled ⅛" in 2".
size 1⅛" x 2¼"
2¾" Backset



No. 8SL-2¾
2¾" Backset
1¼"x8"
Front beveled ⅛" in 2"

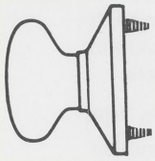


No. 8DL-2¾
2¾" Backset
1¼"x8"
Front beveled ⅛" in 2"

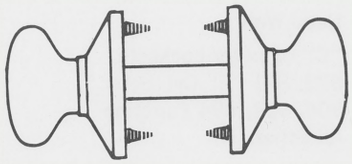
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

SEMI HEAVY DUTY LOCKSETS **800 Series**

Miscellaneous



X800
Dummy Trim
Specify design and finish. Snap-on roses conceal attaching wood screws.

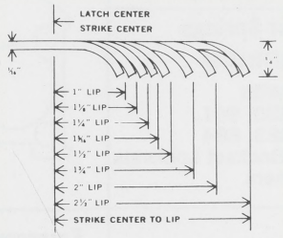


X800WT
Working Trim
Specify design, finish and door thickness. Use as operating trim for mortise locks. 5/16" square spindle 3/8-20 thread snap on Roses conceals attaching screws.

OUTSIDE KNOB ALWAYS LOCKED.
PRESS BUTTON TO SHUT OUT ALL KEYS

Instruction Plate No. 1P72

Applied to inside of door above 872 Hotel Lockset with escutcheon pins. Brass letters on black background. Furnished with each hotel lockset when specified at no charge.

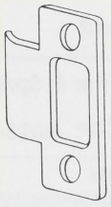




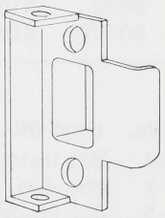
No. 1310
Strike, size 2 1/4" x 1 13/16", furnished with locksets using Z cylinders with 1 5/16" lip length to center standard. Other lengths to order.



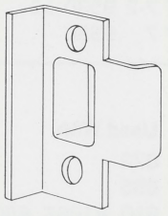
No. 1312
1/4" Radius Strike, size 2 1/4" x 1 13/16". 1 5/16" lip length to center standard. Other lengths to order.



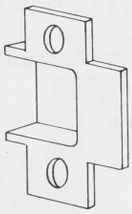
No. 1320
Template Strike. Size 2 3/4" x 1 1/8" furnished on all orders except locksets with Z cylinders with 1 1/4" lip length to center standard. Other lengths to order.



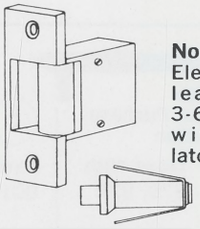
No. 1340
Rabbeted Box Strike for 1/2" Rabbet. 1 1/4" lip to center.



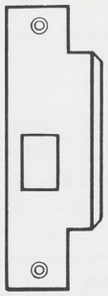
No. 1354
Protected Box Strike for 1 3/4" doors. No. 1358 for 1 3/8" doors.



No. 1360
Cast Open Back Strike 1" lip. Longer lips to order.



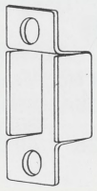
No. 1370
Electric Latch Release. 6-12VAC 3-6VDC. For use with 1/2" throw latch bolts.



No. 1350
4 7/8 x 1 1/4" with 1 1/4" lip to center. Made to standard mortise template of Hollow Metal Assoc. Furnished with 1/2" 12x24 machine screws.



No. 1311
Wrought Box for No. 1310 and 1312 Strikes. Furnished only when so ordered.



No. 1321
Wrought Box for No. 1320 Strike. Furnished only when so ordered.



No. C-67X
Wood Screw
8" x 3/4"



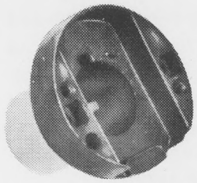
No. C-69
Machine Screw
8-32 x 1/2"
Flat undercut Head

EATON VALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

800 Series SEMI HEAVY DUTY LOCKSETS

Replacement Parts List

Housings with Covers



Outer

Part No.	Used With
8010	"C" Cylinder Locksets
8010-0	872, 891 "E" Cyl. Sets
CF6-04	804, 884, 894 Function
8010-1	All Others

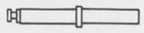
Inner

Part No.	Used With Threaded Trim
8017-IM	881 Function
8017-5M	891 Function
8017	All Others

Used with Snap on Trim

8017-1	881 Function
8017-5	891 Function
8017-2	All Others

Rose Security Pin



CF 62

Rose Security Pin Spring

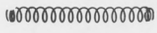


CF 28

Fiber Washers

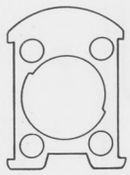
CF 36

Retractor Springs



Part No.	Used With
CF 5A	855, 880, 881, 882, 883, 884
900-5	2¾" Backset Locksets
CF 5	All Others

Housing Plates



Part No.	Used With
Outer	
CF 8-72	872, 891
CF 8B	880, 881, 882, 883, 884
CF 8A	All Others
Inner	
CF 8-72	891
CF 8B	881, 882
CF 8	All Others

Retractor Guides



CF 24

Retractors



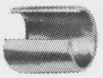
Part No. For Backsets 2⅜"	2¾"	Used With
CF 7-1	9531	810, 810ST, 820, 855, 872, 877
CF 7-2	9530-12	812
CF 7	9530	All Others

Emergency Release Links



Part No.	Used With
8020	810
8020T	810ST

Cylinder Spacers



Part No.	Used With Cylinder Types
CF 40L	C
CF 40E	E and Z

Key Release Cams



Part No.	Used With
8006	872
8007	855
8005	810, 810ST, 850, 860, 870, 871, 877, 890, 891, 893, 894

Escapements

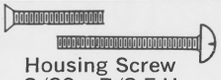


Part No.	Used With
8016-4	871 Inside
8021-2	880, 881, 883, 884
8021-5	882 Inside
8021-6	882 Outside

Hotel Indicator Pin & Spring

8013-2

Screws



Part No.	
C 63	Housing Screw 8/32 x 7/8 F.H.
C 68	Trim Retainer Screw 8/32 x 1-3/16 R.H.

Dogging Bar Assemblies



With Push Button		With Turn Button		With Dual Purpose Button		With Shut Out Button	
Part No.	Used With	Part No.	Used With	Part No.	Used With	Part No.	Used With
8015-8	855	8015-4	830, 833, 860	8015-6	870, 877	8015-10	872
8015-5	810, 810ST, 820, 850						

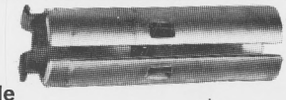
Dogging Bar Pawls



Part No.	Used With
CF 25A	855
CF 25	810, 810ST, 820, 850, 870, 872, 877

Sleeves with Knob Keepers

Used with One-Piece Knobs



Used with Two-Piece Knobs and Type "C" Cylinders

Outside

Part No.	Used With
8014-1	880, 881, 882, 883, 884
8014-3	833
8022-3	812
8014-2	Other Keyed Functions
8014	Non Keyed Functions

Inside

Part No.	Used With
8012-3	871
8012-4	872
8013-1	891
8014-1	881, 882
8022-3	812
8012-03	803, 833, 883, 893
8012-1	All Others

Outside

Part No.	Used With
CF 38A	880, 881, 882, 883, 884
CF 38	All Others

Inside

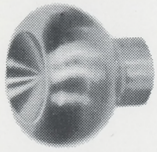
Part No.	Used With
CF 38A	881, 882,
CF 38	891

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

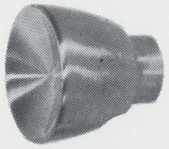
SEMI HEAVY DUTY LOCKSETS **800 Series**

Replacement Parts List

Closed Knobs (One Piece)



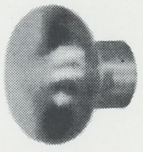
CF31BA 2" Diam.



CF79A 2" Diam.

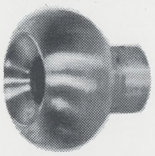


CF75A 2¼" Diam.

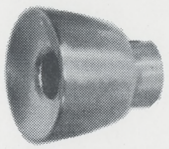


CF31A 2" Diam.

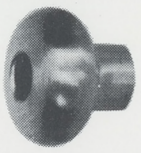
Open Knobs (One Piece) For Use with Buttons, Emergency Keyway and Type E&Z Cylinders



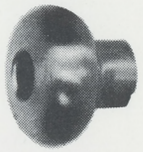
CF31B 2" Diam.



CF79 2" Diam.



CF75 2¼" Diam.



CF31 2" Diam.

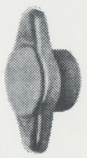
Cylinder Knob (Two Piece) For Use with Type C Cylinder



8011-2 2¼" Diam.

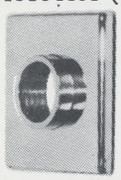


CF 39



8034 Thumb Turn

Outer Rosettes (Threaded)



8554M 3" Square



8555M 3" Square

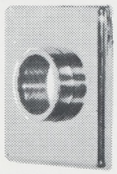


8018-1 2½" Diam.
8018-1C 2 13/16" Diam.



8018 2½" Diam.
8018C 2 13/16" Diam.

Inner Rosettes



8553M 3" Square



8009-1 2½" Diam.
8009-1C 2 13/16" Diam.



CF10 2½" Diam.
CF10C 2 13/16" Diam.

	Concave	Holiday	Mars	Metro	Piper	Polaris	Venus
CF31BA	X					X	
CF79A		X			X		
CF75A			X	X			
CF31A							X
CF31B	X					X	
CF79		X			X		
CF75			X	X			
CF31							X
8011-2			X	X			X
8554M			X		X	X	

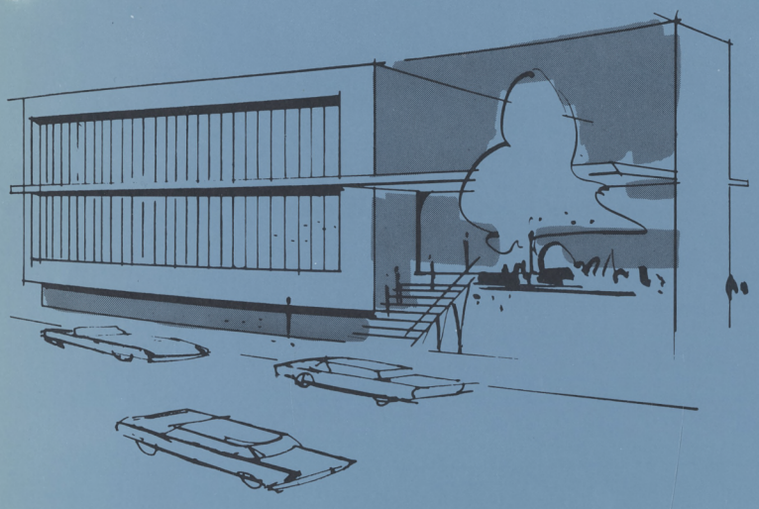
	Concave	Holiday	Mars	Metro	Piper	Polaris	Venus
8555M			X		X	X	
8018-1	X	X					X
8018-1C				X			
8018	X	X					X
8018C				X			
8553M			X		X	X	
8009-1	X	X					X
8009-1C				X			
CF10	X	X					X
CF10C				X			

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Heavy Duty Lockset Designs

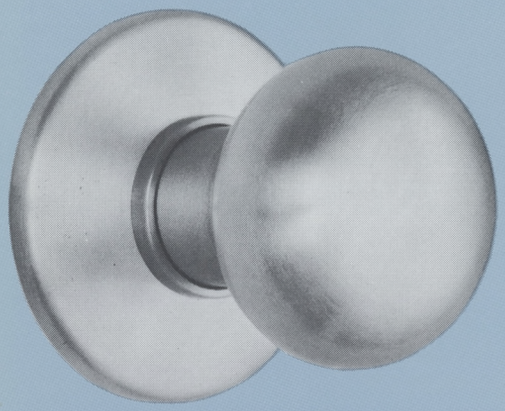
900

Series



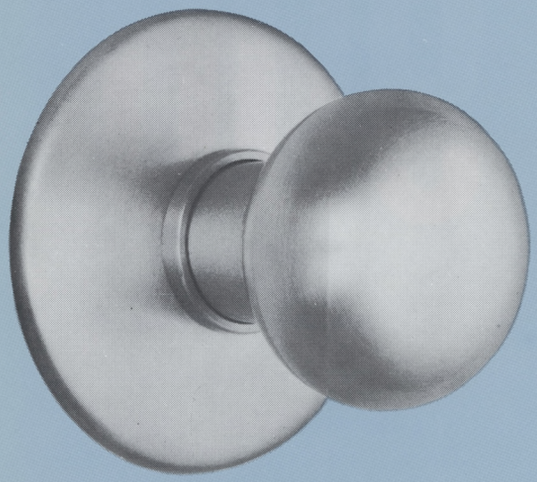
CHALLENGER®

HEAVY DUTY LOCKSET DESIGNS



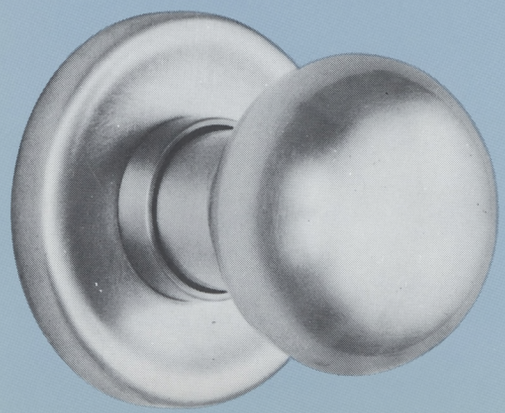
Regent Design

Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" diameter .081" cold forged.
Projection: 2-11/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Gladiator Design

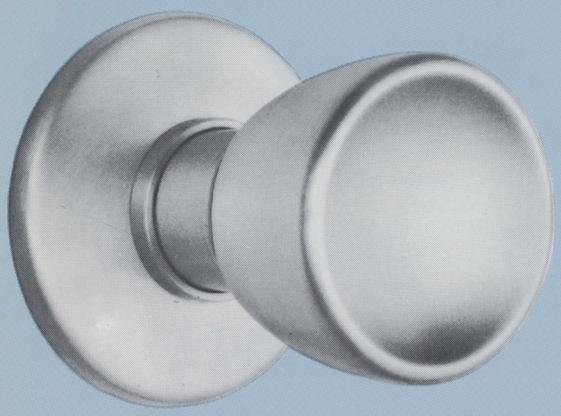
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3-1/2" diameter .081" cold forged.
Projection: 2-11/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Explorer Design

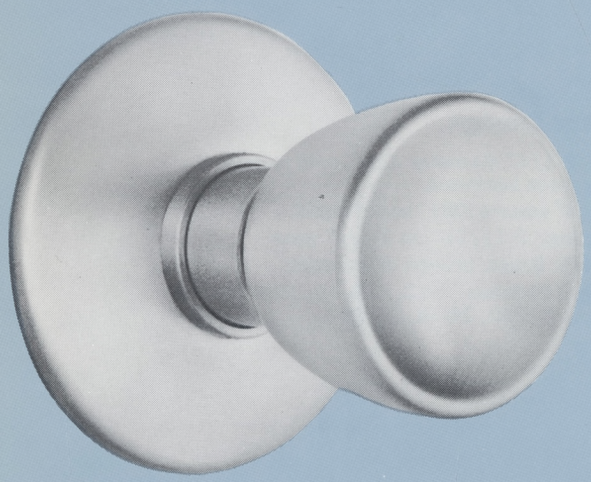
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" diameter .081" cold forged.
Projection: 2-11/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

HEAVY DUTY LOCKSET DESIGNS



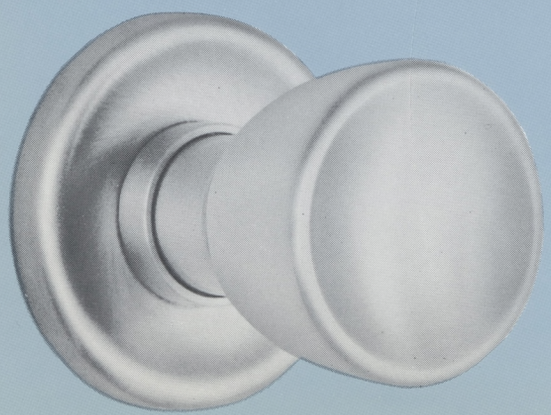
Matador Design

Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" diameter .081" cold forged.
Projection: 2-15/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Bomarc Design

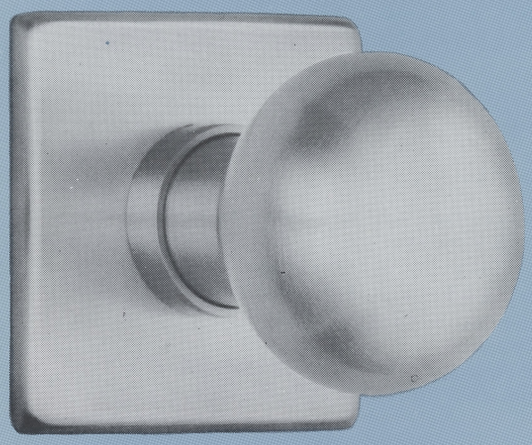
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3-1/2" diameter .081" cold forged.
Projection: 2-15/16" on 1-3/4" door.
Materials: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Fiesta Design

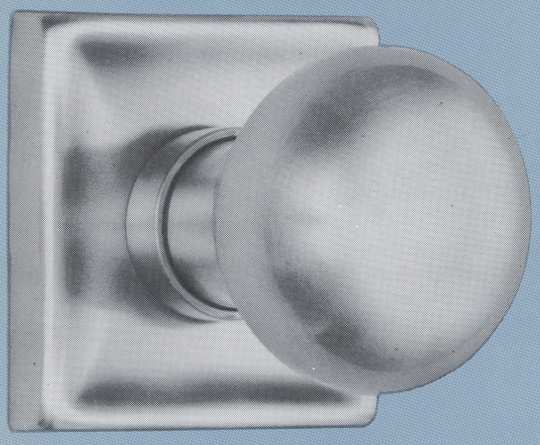
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" diameter .081" cold forged.
Projection: 2-15/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

HEAVY DUTY LOCKSET DESIGNS



Hercules Design

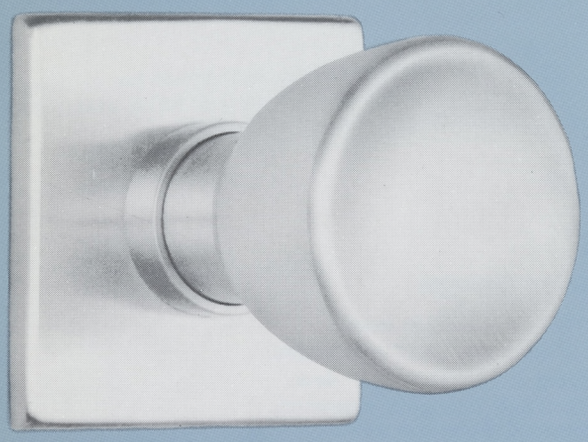
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" square .081" cold forged.
Projection: 2-11/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



Jupiter Design

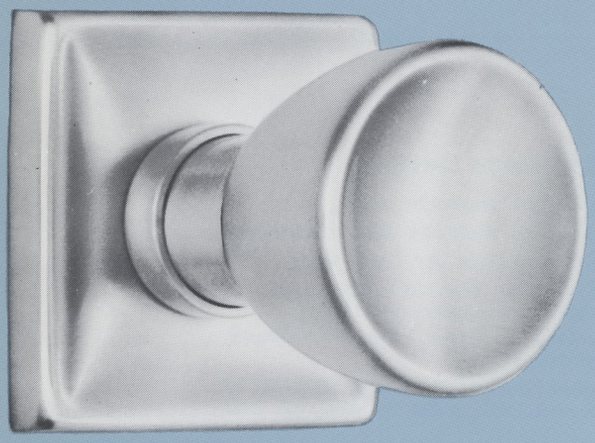
Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" square .081" cold forged.
Projection: 2-11/16" on 1-3/4" door.
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

HEAVY DUTY LOCKSET DESIGNS



Pluto Design

Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" square .081" cold forged.
Projection: 2-15/16" on 1-3/4" door.
Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

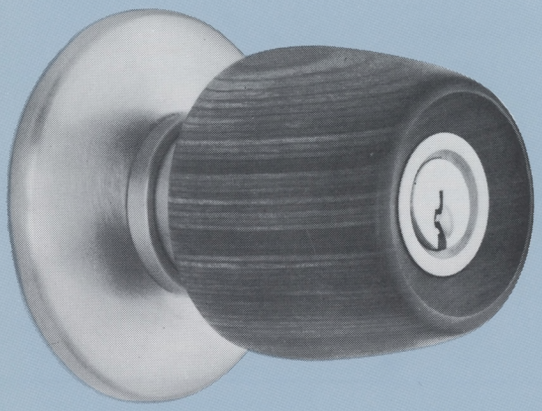


Atlas Design

Knob: 2-1/4" diameter .081" cold forged, one piece seamless.
Rose: 3" square .081" cold forged.
Projection: 2-15/16" on 1-3/4" door.
Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

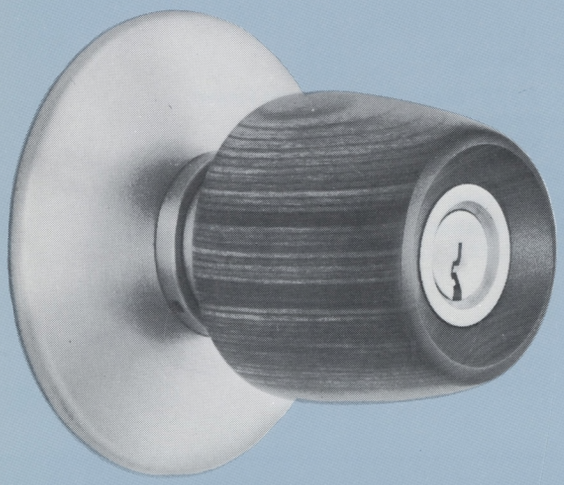
HEAVY DUTY LOCKSET DESIGNS

NOTE: COCOBOLO WOOD KNOBS. Because of the variation of the color in the Cocobolo wood, there can be no assurance that any two knobs on any one job will match.



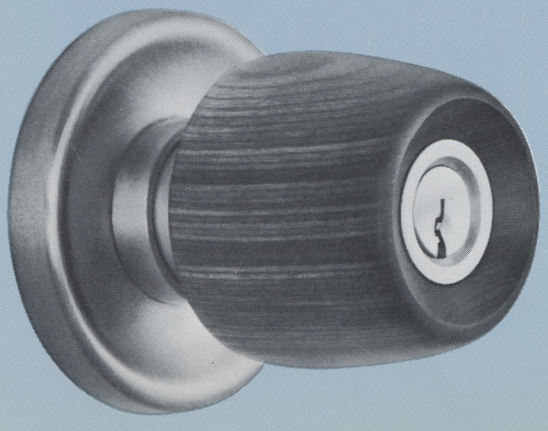
W-Midas Design

Knob: 2-1/4" diameter, wood.
Rose: 3" diameter .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Baracuda Design

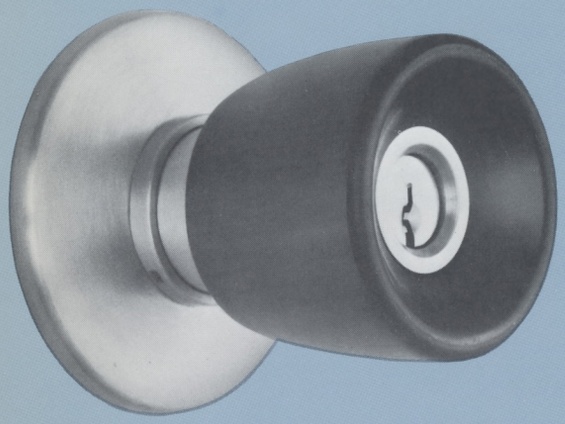
Knob: 2-1/4" diameter, wood.
Rose: 3-1/2" diameter .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Fortuna Design

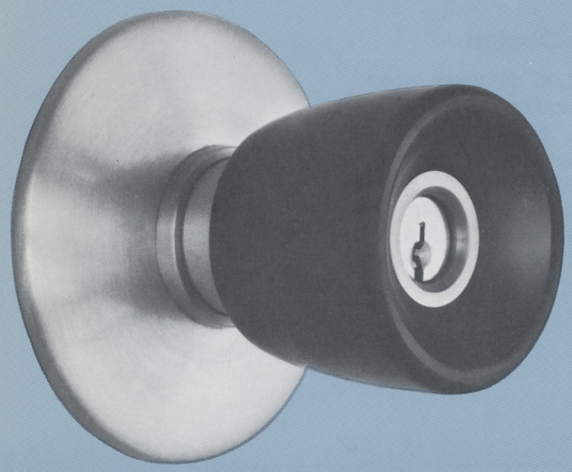
Knob: 2-1/4" diameter, wood.
Rose: 3" diameter .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

HEAVY DUTY LOCKSET DESIGNS



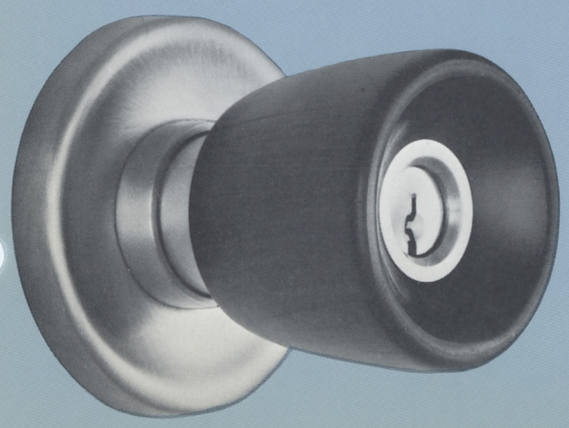
W-Matador Design

Knob: 2-1/4" diameter, wood.
Rose: 3" diameter .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Bomarc Design

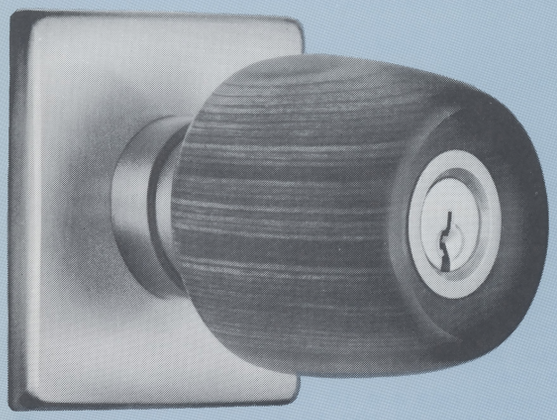
Knob: 2-1/4" diameter, wood.
Rose: 3-1/2" diameter .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Fiesta Design

Knob: 2-1/4" diameter, wood.
Rose: 3" diameter .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.

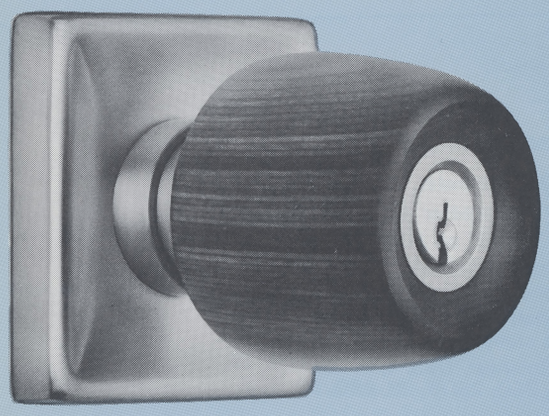
HEAVY DUTY LOCKSET DESIGNS



NOTE: COCOBOLO WOOD KNOBS. Because of the variation of the color in the Cocobolo wood, there can be no assurance that any two knobs on any one job will match.

W-Hilo Design

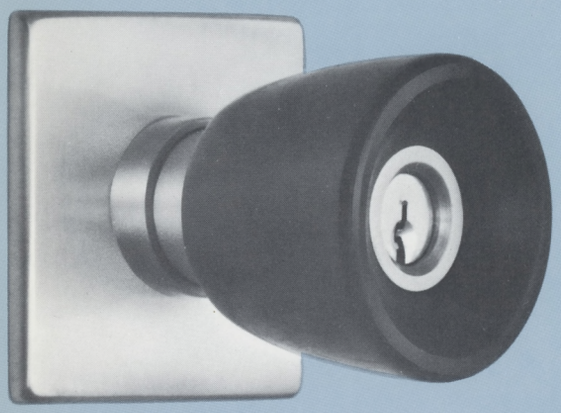
Knob: 2-1/4" diameter, wood.
Rose: 3" square .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Ajax Design

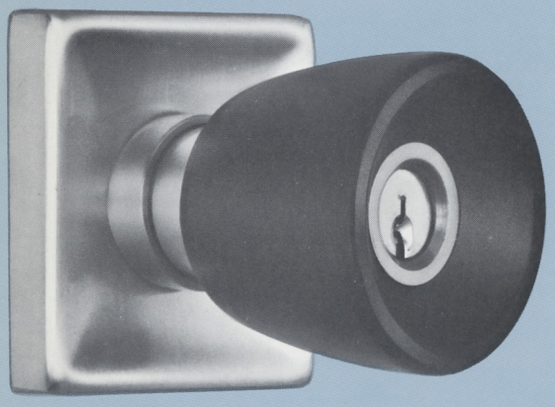
Knob: 2-1/4" diameter, wood.
Rose: 3" square .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

HEAVY DUTY LOCKSET DESIGNS



W-Pluto Design

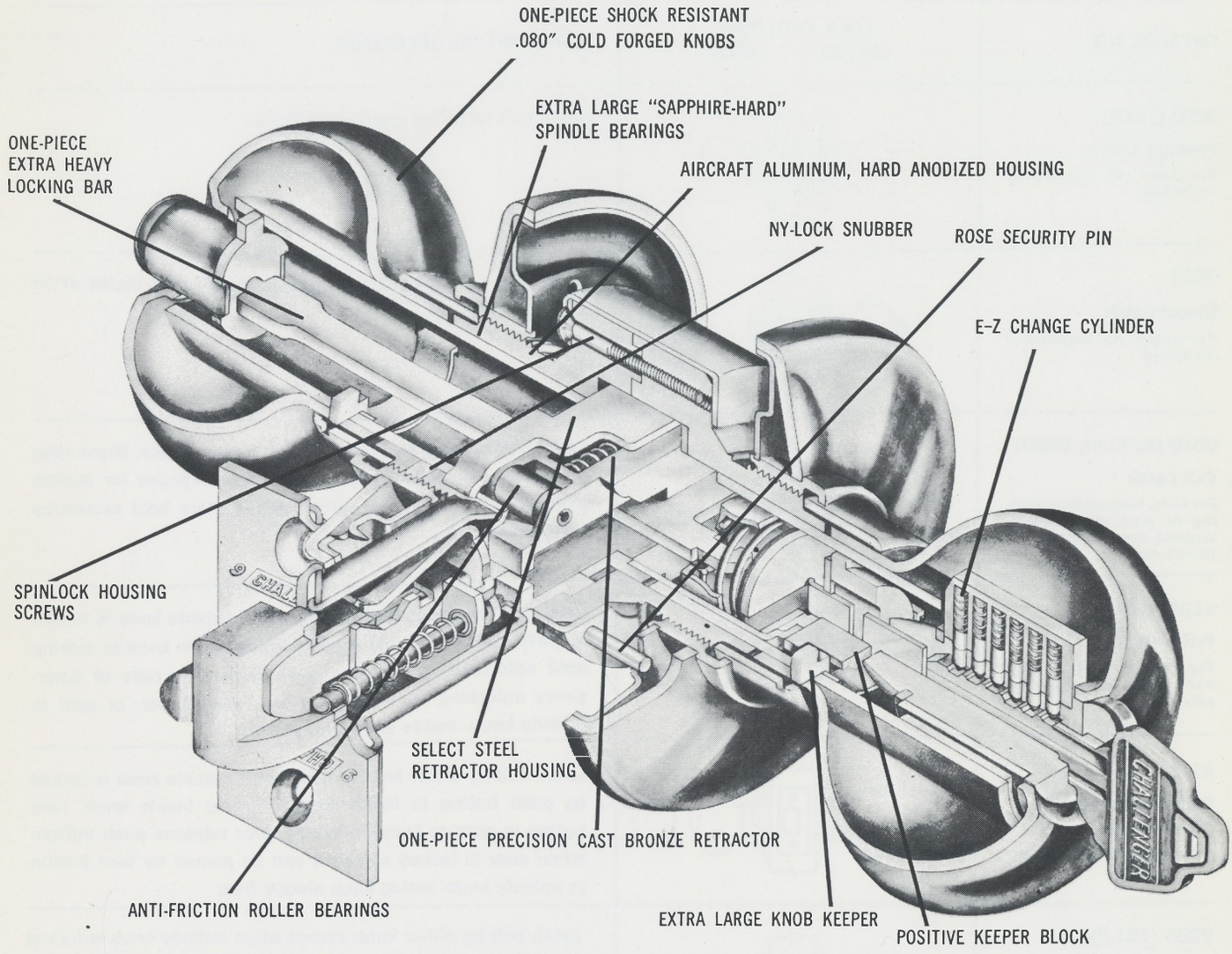
Knob: 2-1/4" diameter, wood.
Rose: 3" square .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum, stainless steel.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G, 32, 32D.



W-Atlas Design

Knob: 2-1/4" diameter, wood.
Rose: 3" square .081" cold forged.
Projection: 2-7/8" on 1-3/4" door.
Knob Material: Cocobolo, rosewood, stratawood, American walnut.
Rose Material: Brass, bronze, aluminum.
Standard Finishes: US3, 4, 9, 10, 10B, 19, 26, 26B, 26D, 26DB, 28, 28G.

HEAVY DUTY LOCKSETS **900 Series**



Specifications for the Challenger 900 Series Model "C"

Heavy-duty cylindrical locks and latches for commercial and industrial buildings for doors 1⅜" to 2¼" thick.

CYLINDRICAL HOUSING: Hard anodized (Sanford process) pressure cast aircraft aluminum with brass case 2 1/16" diameter for 2⅛" hole in door.

BACKSET: 2¾" standard, 5" or greater when specified.

FRONT: Wrought brass or bronze 2¼" x 1⅛" beveled ⅛" in 2". Flat front when specified.

STRIKE: 2¾" x 1⅛" with curved lip 1⅛" to center and attached wrought box. Other lengths of lip to order.

LATCH BOLT UNIT: Steel zinc plated, dichromated 15/16" diameter for 1" hole in edge of door. Solid brass or nickel silver latch bolt with ½" throw. ¾" throw when so ordered. Deadlocking latchbolt where indicated by type.

KNOB SPINDLE BEARINGS: .950" diameter. Sapphire-hard surfaced. Length of bearing 1⅛" for each knob.

ROSE ATTACHMENT: Threaded roses. Outer rose held firm by security pin. Inner rose by Nylock anti-loosening device.

MATERIAL: Brass, bronze or aluminum trim. All steel parts zinc plated and dichromated. Aluminum housings hard anodized (Sanford process).

CYLINDER: 6 pin tumbler extruded brass.

MEETS THE REQUIREMENTS OF FEDERAL SPECIFICATIONS FF-H-106A, SERIES 161.

Non-ferrous Mechanism Locksets

900 Series locksets are available with non-ferrous mechanisms. Precision construction of corrosion-resistant monel, bronze, brass and hard anodized (Sanford process) aluminum assures a maximum of protection for marine use and other areas with corrosive problems.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

900 Series HEAVY DUTY LOCKSETS

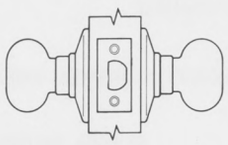
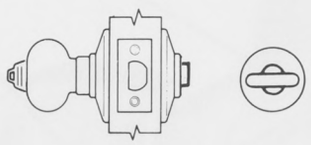
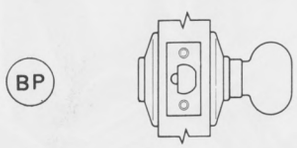
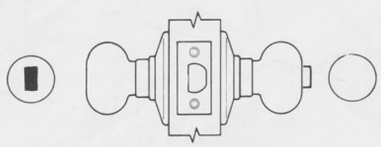
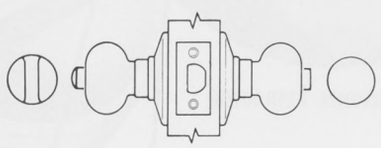
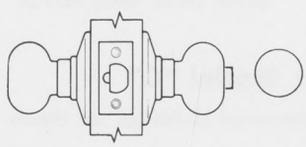
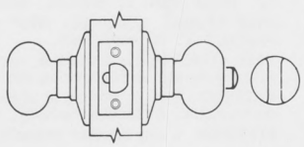
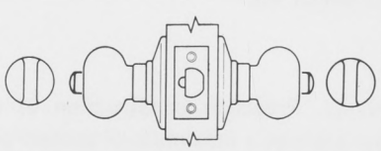
PUSH BUTTON
The Push Button provides a non lock-out feature which unlocks automatically when the inside knob is turned.

TURN BUTTON
The Turn Button shows the door is locked when in the horizonal position, or unlocked in the vertical position. This button must be rotated manually to lock or unlock.

EMERGENCY ACCESS
The Emergency Button provides emergency access. Operated by emergency key, coin or screwdriver.

BP BLANK PLATE

THUMB TURN

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
900S (161N) **Passage Latch** For doors not required to be locked.		Latch bolt by either knob at all times.
903S **Closet Latch** For closets not required to be locked.		Latch bolt by knob from outside or thumb turn inside at all times.
904D (Formerly 902D) **Exit Latch** For exits, twin communicating or pipe shaft doors. Without space for knob or thumb turn.		Latch bolt by knob from one side only at all times. Blank rose other side. Deadlocking latch. Not recommended for closets without other means of egress. Blank plate held secure by rose security pin.
910S (161-L) **Privacy Lock** For bathroom, bedroom or other doors requiring privacy.		Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob or closing door automatically releases push button. In case of emergency unlocking by emergency key, screwdriver, or coin in outside knob. Inside knob always free.
910ST **Communicating Privacy Lock** For communicating bathroom doors.		Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob, turn button in outside knob or closing door releases push button. When door is locked entrance can be gained by turn button in outside knob. Inside knob always free.
920D (161-P) **Inner Office Lock** For doors requiring locking only when the room is occupied.		Latch bolt by either knob except when outside knob is locked by push button in inside knob. Turning inside knob or closing door automatically releases push button. Inside knob always free. Deadlocking latch.
930D (161Q) **Exit Lock** For exit doors not requiring entrance key.		Latch bolt by either knob except when outside knob is locked by turn button in inside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.
931D (161M) **Communicating Lock** For communicating doors.		Latch bolt by either knob except when either knob is locked by turn button in opposite knob. Manual release of turn buttons. Deadlocking latch. Not recommended for doors in rooms without another entrance.

Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

HEAVY DUTY LOCKSETS **900 Series**

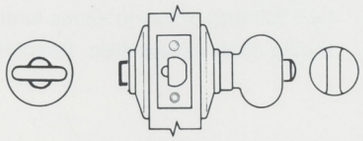
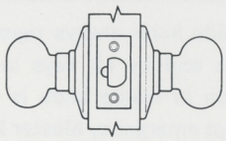
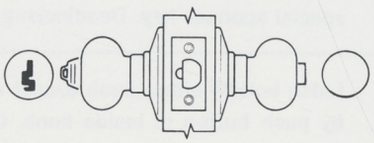
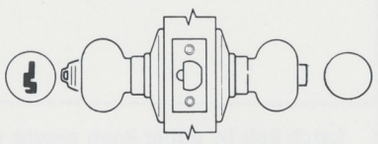
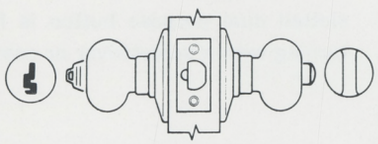
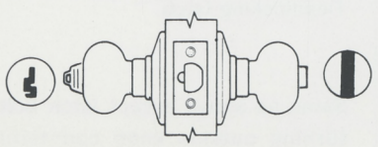
PUSH BUTTON
The Push Button provides a non lock-out feature which unlocks automatically when the inside knob is turned.

TURN BUTTON
The Turn Button shows the door is locked when in the horizonal position, or unlocked in the vertical position. This button must be rotated manually to lock or unlock.

DUAL PURPOSE BUTTON
The Dual Purpose Button combines the convenience of the push button and the security of the turn button. The button will unlock automatically when the slot is in the vertical position or it may be rotated to the horizontal position where it will remain locked until returned manually.

THUMB TURN

REGULAR CYLINDER

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
933D **Twin Communicating Lock** For twin communicating doors. Without space for knob.		Latch bolt by thumb turn from outside or knob inside except when thumb turn is locked by turn button in inside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.
940D (161-NX) **Exit Latch** For permanently locked exit doors.		Latch bolt by inside knob at all times. Outside knob always rigid. Deadlocking latch.
950DP (161-B) **Office Lock** For office doors.		Latch bolt by either knob except when outside knob is locked by push button in inside knob, then by key in outside knob. Inside knob always free. Turning inside knob or key in outside knob automatically releases push button in inside knob. Push button does not release when closing door. Deadlocking latch.
955DP (161-T) **Dormitory Lock** For dormitory bedroom doors or public restrooms where privacy is desired.		Latch bolt by either knob except when outside knob is locked by push button in inside knob or ¼ counterclockwise turn of key in outside knob. Inside knob always free. Turning inside knob, shutting door or a ¼ clockwise turn of the key in outside knob will automatically unlock and release push button. Deadlocking latch.
960DP (161-A) **Exterior Lock** For entrance or office doors.		Latch bolt by either knob except when outside knob is locked by turn button in inside knob, then by key in outside knob. Inside knob always free. Manual release of turn button. Deadlocking latch.
970DP **Exterior Lock** For entrance or office doors.		Latch bolt by either knob except when outside knob is locked by dual purpose button in inside knob, then by key in outside knob. Inside knob always free. Turning inside knob or key in outside knob releases button except when slotted dual purpose button is fixed in locked position by turning with a screwdriver or coin. Deadlocking latch.

Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

900 Series HEAVY DUTY LOCKSETS

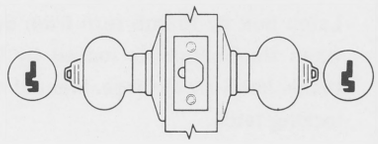
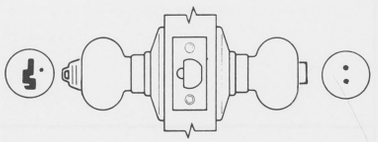
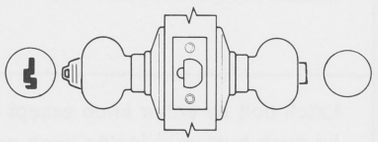
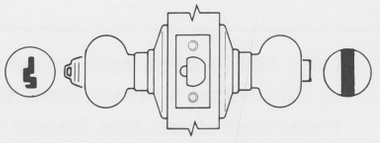
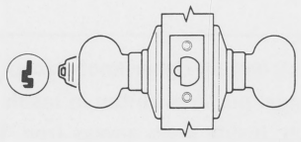
PUSH BUTTON
The Push Button provides a non lock-out feature which unlocks automatically when the inside knob is turned.

SHUT OUT BUTTON
The Shut Out Button found in hotel locksets will automatically unlock unless it is rotated by a special spanner key thus shutting out all keys except the Emergency key. The shut out button will not rotate accidentally or without the use of the spanner key.

DUAL PURPOSE BUTTON
The Dual Purpose Button combines the convenience of the push button and the security of the turn button. The button will unlock automatically when the slot is in the vertical position or it may be rotated to the horizontal position where it will remain locked until returned manually.

INDICATOR CYLINDER

REGULAR CYLINDER

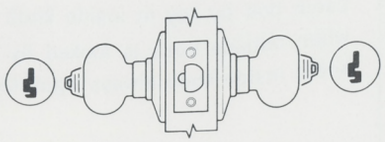
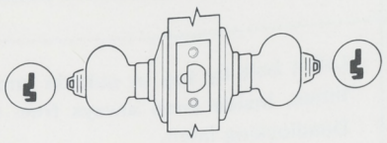
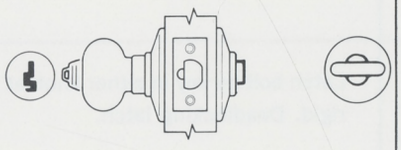
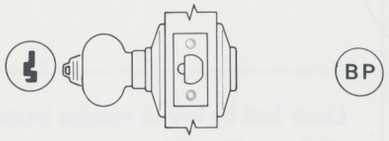
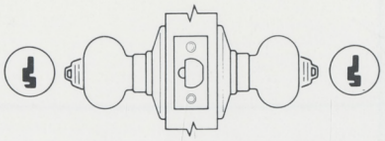
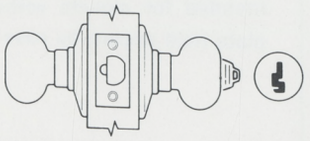
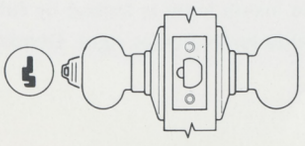
CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
971DP (161-C) **Entrance Lock** For vestibules, office building restrooms, or apartment house entrance doors. 971DPHB With hold-back feature.		Latch bolt by either knob except when outside knob is locked by a full turn of key in inside knob then by key in outside knob. Inside knob always free. Deadlocking latch. Same as above except latch bolt may be held retracted by turning outside knob counterclockwise until latch bolt is retracted and rotate key in inside knob to locked position.
972DP (161-H) **Hotel Lock** For hotel guest room doors.		Outside knob always rigid. Latch bolt by inside knob at all times and by all keys in outside knob except when push button in inside knob is depressed shutting out all (keys) except emergency Master key and projecting visual occupancy indicator on face of cylinder. Turning inside knob or closing door automatically releases push button, except when shut out button is rotated with special spanner key. Deadlocking latch.
975DP (161-V) **Communicating Lock** For communicating bathroom doors.		Latch bolt by either knob except when outside knob is locked by push button in inside knob. Closing door, turning inside knob or key in outside knob releases push button. Full turn of key in outside knob locks or unlocks both knobs. Deadlocking latch.
977DP (161-E) **Service Station Lock** For public rest room doors where privacy is desired. (Formerly 970DAP).		Latch bolt by either knob except when outside knob is locked by dual purpose button in inside knob, then by key in outside knob. Inside knob always free. Closing door, turning inside knob or key in outside knob releases button, except when slotted dual purpose button is fixed in locked position by turning with a screwdriver or coin. Deadlocking latch.
980DP (161-R) **Classroom Lock** For classroom or utility room doors. 980DPHB With hold-back feature.		Latch bolt by either knob except when outside knob is locked by a full turn of key in outside knob. Inside knob always free. Deadlocking latch. Same as above except latch bolt may be held retracted by turning outside knob counterclockwise until latchbolt is retracted and rotate key to locked position.

Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

HEAVY DUTY LOCKSETS **900 Series**

REGULAR CYLINDER THUMB TURN BP BLANK PLATE

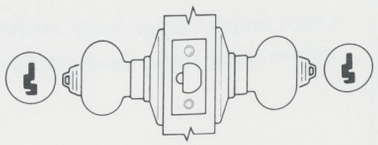
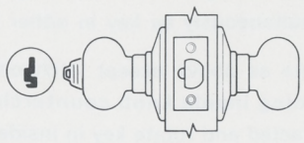
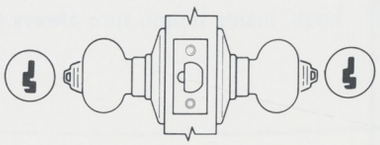
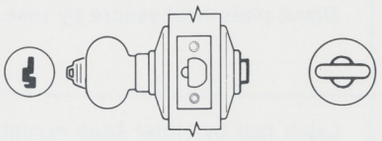
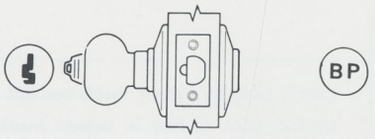
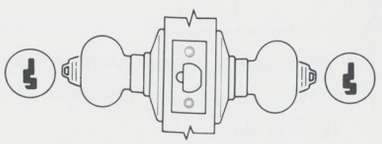
CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	FUNCTION OR OPERATION
981DP (161-S) **Communicating Lock** For communicating or store entrance doors.		Latch bolt by either knob except when full turn of key locks its own knob only. Deadlocking latch.
982DP (161-G) **Store Door Lock** For store entrance or communicating doors. 982DPHB With hold-back feature.		Latch bolt by either knob except when both knobs are locked simultaneously by key in either knob. Deadlocking latch. Same as above except latchbolt may be held retracted by turning inside knob counterclockwise until latch bolt is retracted and rotate key in inside knob to locked position.
983DP **Closet Lock** For closet doors.		Latch bolt by knob from outside or thumb turn inside except when outside knob is locked by full turn of key in outside knob. Inside thumb turn always free. Deadlocking latch.
984DP **Cabinet Lock** For closets, cabinets or pipe shaft doors. Without space for knob or thumb turn.		Latch bolt by knob from outside except when outside knob is locked by full turn of key in outside knob. Deadlocking latch. Not recommended for rooms without other means of egress. Blank plate held secure by rose security pin.
985DP (161-F) **Communicating Lock** For communicating doors.		Latch bolt by either knob except when either knob is locked by key in opposite knob. Deadlocking latch. Not recommended for doors in rooms without another entrance.
987DP **Exit Lock** For exit doors.		Latch bolt by either knob except when outside knob is locked by full turn of key in inside knob. Deadlocking latch.
988DP **Institutional Lock** For institutional doors.		Latch bolt by either knob except when both knobs are locked simultaneously by full turn of key in outside knob. Deadlocking latch.

Specify Catalog Number, Design & Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

900 Series HEAVY DUTY LOCKSETS

REGULAR CYLINDER BP BLANK PLATE THUMB TURN

CATALOG NO.	LOCK OUTLINE OUTSIDE INSIDE	OPERATION
989DP **Institutional Lock** For institutional doors.		Latch bolt by key in inside knob or by outside knob except when outside knob is locked by full turn of key in outside knob. Inside knob always rigid. Deadlocking latch.
990DP (161-D) **Store Room Lock** For store room or exit doors.		Latch bolt by key in outside knob or by inside knob at all times. Inside knob always free. Outside knob always rigid. Deadlocking latch.
991DP (161-W) **Fixed Knob Lock** For permanently locked passage doors.		Latch bolt by key in either knob at all times. Both knobs always rigid. Deadlocking latch.
993DP **Closet Lock** For key operated utility closet doors.		Latch bolt by key in outside knob or by thumb turn inside at all times. Thumb turn always free. Knob always rigid. Deadlocking latch.
994DP **Cabinet Lock** For key operated closet, cabinet or pipe shaft doors, without space for knob or thumb turn.		Latch bolt by key in outside knob at all times. Blank rose inside. Knob always rigid. Deadlocking latch. Not recommended for closets without other means of egress. Blank plate held secure by rose security pin.
998DP **Institutional Lock** For institutional doors.		Latch bolt by key in outside knob and inside knob except when inside knob is locked by full turn of key in inside knob. Outside knob always rigid. Deadlocking latch.

Specify Catalog Number, Design & Finish

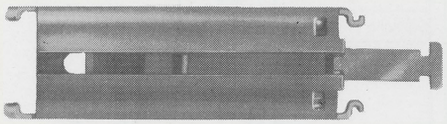
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

HEAVY DUTY LOCKSETS **900 Series**

Miscellaneous:

Backset Links

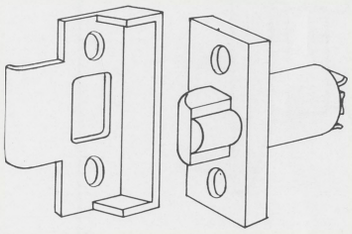
When it is desirable to move the knob toward the center of the door it can be done easily by adding a backset link to the standard latch unit. These are available to give a standard backset from the edge of the door of 5", 7", 10" or 18". Special sizes are also available.

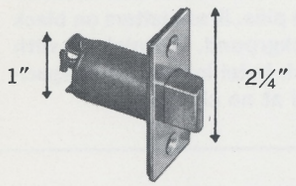


Catalog No.	For Backset	Catalog No.	For Backset
901-5	5"	901-10	10"
901-7	7"	901-18	18"

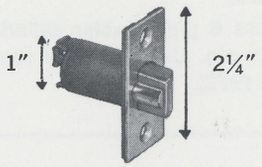
Rabbeted Front & Strike

Rabbeted fronts and strikes available at extra cost for ½" Rabbet. 2¾" Backset measured on long side of Rabbet. Specify by adding "Rab" to Catalogue No., i.e., 900SRAB.

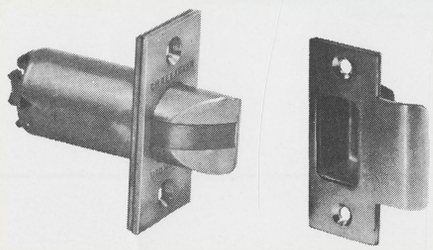




No. 9S
Spring Latch
Regularly furnished beveled ⅛" in 2". Flat front to order.



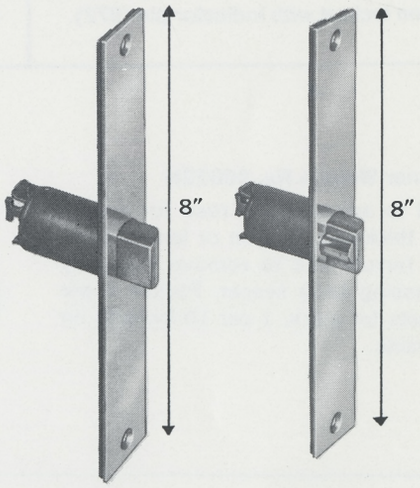
No. 9D
Deadlocking Latch
Regularly furnished beveled ⅛" in 2". Flat front to order.



Latchbolt—¾" Throw and Deep Box Strike

Specify by adding ¾ to catalogue number; i.e.: 900S¾.

Special Long Face Latch Units.



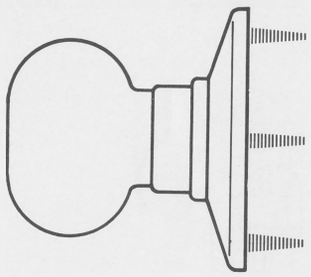
No. 9SL **No. 9DL**

Latch faces size 1¼" x 8" beveled ⅛" in 2" available at extra cost. Face made to standard mortise template of Hollow Metal Assoc. Furnished with ½" 12 x 24 machine screws.

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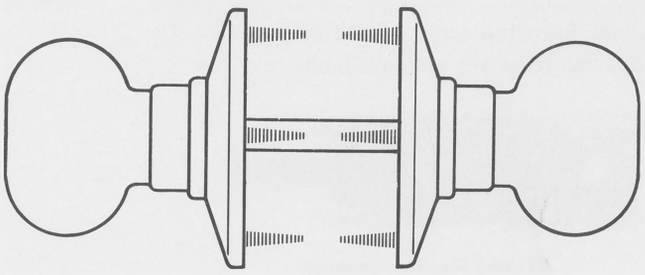
900 Series HEAVY DUTY LOCKSETS

Miscellaneous



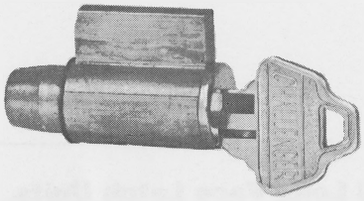
X900 Dummy Trim

Specify design and finish. Provided with wood screws and thru bolt. Spanner trim conceals screws.



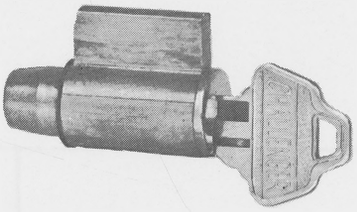
X900WT Working Trim

Specify design, finish and door thickness. Use as operating trim for mortise locks. 5/16" square spindle. 3/8-20 thread. Knobs fastened to sleeve by concealed knob keepers.



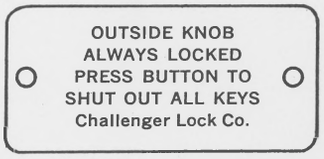
Type P Cylinder

Extruded brass 6 pin tumbler cylinder. Used in all keyed locksets except hotel function lockset with indicator pin (972).



Type PI Cylinder

Extruded brass 6 pin tumbler cylinder with indicator pin. Used in hotel function locksets (972).

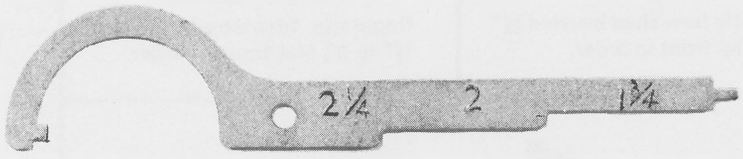


Instruction Plate No. 1P72

Applied to inside of door above 972 hotel lockset with escutcheon pins. Brass letters on black background. Furnished with each hotel lockset when specified at no charge.

Spanner Wrench No. 90072N

Used to adjust outer rose for proper door thickness, tighten or loosen inner rose ferrule and to remove knobs by depressing knob keeper. Packed 1 per locksets for stock, 1 per 10 locksets on contracts.



Radiation Resistant Trim

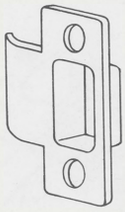
Challenger specializes in providing the proper radiation reduction trim required for the exacting project. A special lead formula is used to line knobs, roses and buttons. Cylinders, emergency access keyways or aluminum trim cannot be provided with radiation resistant lead lining. For specialized applications contact Challenger's engineering staff.

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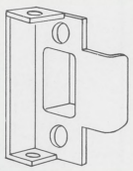
HEAVY DUTY LOCKSETS **900 Series**

Miscellaneous

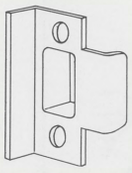
Special Strikes



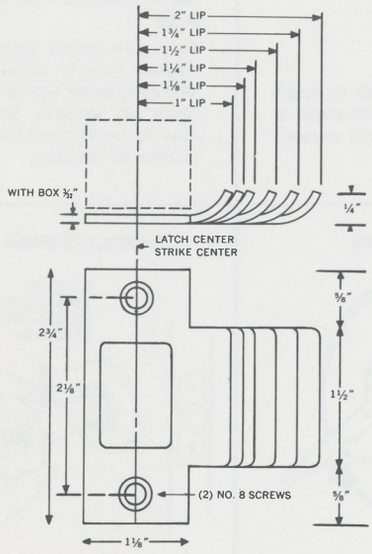
No. 1325
Standard Box Strike
Furnished on all orders with 1-¼" lip length to center. Other lengths to order.

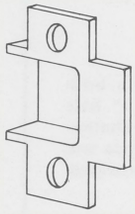


No. 1340
Rabbeted Box Strike for ½" Rabbet. 1¼" lip length to center.

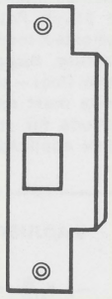


No. 1354
Protected Box Strike for 1¾" doors. No. 1358 for 1⅜" doors.



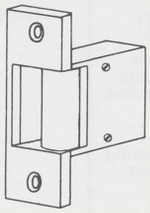


No. 1360
Cast Open Back Strike. 1" lip longer lips to order.



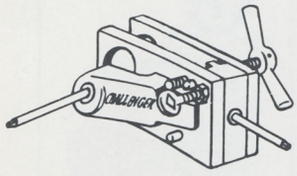
No. 1350
4 7/8 x 1¼" with 1⅛" lip to center. Made to standard mortise template of Hollow Metal Assoc. Furnished with ½" 12x24 machine screws.

No. 1370
Electric Latch Release
6 to 12 V AC
3 to 6 V DC
For use with ½" throw latchbolts.
Case: Steel: 1⅞ x 2¾ x 1"
Face: Forged Brass: 3½" x 1⅜"
Latch Opening 1 9/16"
Screws: ½" 8-32 machine screws
¾ 8 FH wood screws



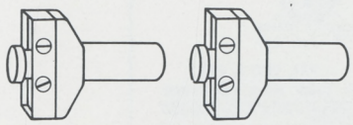
For faster and more accurate door preparation, it is recommended that you use the CHALLENGER installation aids designed for this purpose.

NO. 1111



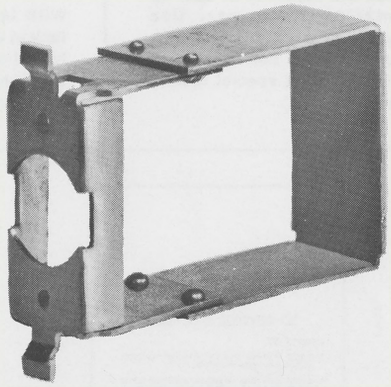
BORING JIG

NO. 1142 NO. 1143



LATCH STRIKE

MARKING CHISELS



Reinforcing Units

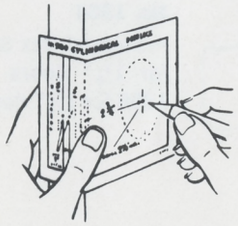
(For complete information see page 701)
Challenger's steel reinforcing units provide the essential reinforcing required in hollow metal doors for cylindrical locksets. Metal cutting templates available on request.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

900 Series HEAVY DUTY LOCKSETS

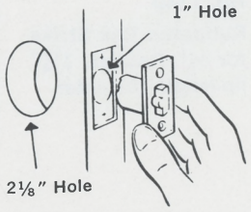
Instructions for Installing Challenger 900 Series Heavy Duty Cylindrical Latchsets and Locksets

1 MARK DOOR



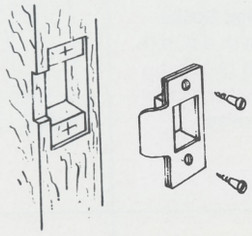
Fold Template and place in position shown on high side of bevel. Follow positions indicated, marking points for drilling. Suggested height from floor—38". 900 Series locks meet required specifications for steel door template application.

2 BORE TWO HOLES



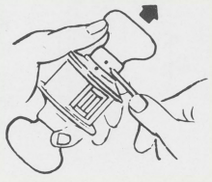
Bore 2⅛" hole from both sides of door. Bore 1" hole to meet 2⅛" hole. Shallow mortise to fit latch face and install with screws provided.

3 INSTALL STRIKE



Mortise door jamb to align with latch bolt. Affix strike & box assembly with screws provided.

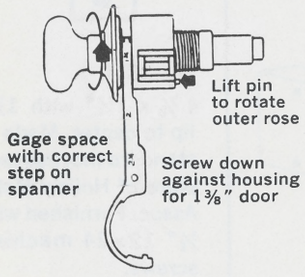
4 REMOVE INNER TRIM



(NOTE! Follow directions on tag if attached—for step 4 & 8.)

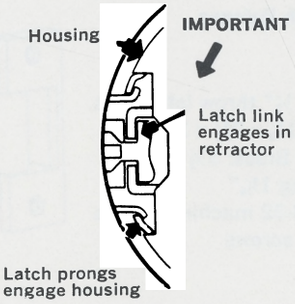
Depress knob catch in square hole in cover, with end of spanner wrench. Slide knob off spindle. Remove rose by rotating off threaded portion of housing.

5 ADJUST THICKNESS



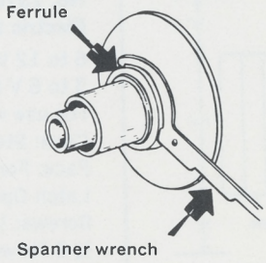
For doors 1⅜" to 2¼" thick lock will adjust to fit door by rotating outer rose. Use spanner as shown to measure distance. For doors over 2¼" thick, a special lock is required.

6 INSTALL LOCK



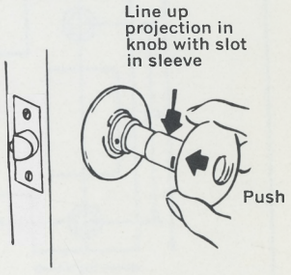
With latch in place, install lock in door making sure that lock housing engages with latch prongs, and retractor interlocks with latch link.

7 SECURE TRIM



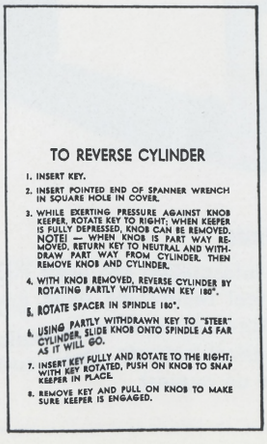
Replace rose by turning ferrule on threaded portion of housing. Insert hook end of spanner in rectangular hole and tighten, holding outside knob to prevent lock housing from rotating.

8 REPLACE KNOB



Line up projection in knob with slot in sleeve. Push knob straight on till keeper clicks. Test both knobs.

(NOTE! To reverse cylinder to change hand, follow directions on tag attached.)



TO REVERSE CYLINDER

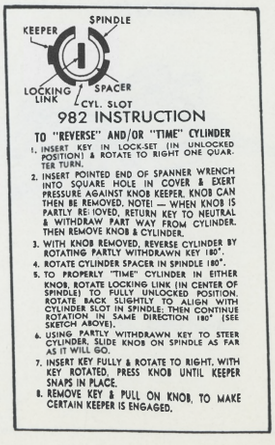
1. INSERT KEY.
2. INSERT POINTED END OF SPANNER WRENCH IN SQUARE HOLE IN COVER.
3. WHILE EXERTING PRESSURE AGAINST KNOB KEEPER, ROTATE KEY TO RIGHT; WHEN KEEPER IS FULLY DEPRESSED, KNOB CAN BE REMOVED. NOTE! — WHEN KNOB IS PART WAY REMOVED, RETURN KEY TO NEUTRAL AND WITHDRAW PART WAY FROM CYLINDER. THEN REMOVE KNOB AND CYLINDER.
4. WITH KNOB REMOVED, REVERSE CYLINDER BY ROTATING PARTLY WITHDRAWN KEY 180°.
5. ROTATE SPACER IN SPINDLE 180°.
6. USING PARTLY WITHDRAWN KEY TO "STEER" CYLINDER, SLIDE KNOB ONTO SPINDLE AS FAR AS IT WILL GO.
7. INSERT KEY FULLY AND ROTATE TO THE RIGHT; WITH KEY ROTATED, PUSH ON KNOB TO SNAP KEEPER IN PLACE.
8. REMOVE KEY AND PULL ON KNOB TO MAKE SURE KEEPER IS ENGAGED.



971, 980 & 981

TO "REVERSE" AND/OR "TIME" CYLINDER

1. INSERT KEY (WITH LOCK-SET IN UNLOCKED POSITION) & ROTATE TO RIGHT ONE QUARTER TURN.
2. INSERT POINTED END OF SPANNER WRENCH INTO SQUARE HOLE IN COVER & EXERT PRESSURE AGAINST KNOB KEEPER. KNOB CAN NOW BE REMOVED. NOTE! — WHEN KNOB IS PARTLY REMOVED, RETURN KEY TO NEUTRAL & WITHDRAW PART WAY FROM CYLINDER. THEN REMOVE KNOB & CYLINDER.
3. WITH KNOB REMOVED, REVERSE CYLINDER BY ROTATING PARTLY WITHDRAWN KEY 180°.
4. ROTATE CYLINDER SPACER IN SPINDLE 180°.
5. LOCKING LINK (IN CENTER OF SPINDLE) MUST ALWAYS BE IN UNLOCKED POSITION & PARALLEL TO CYLINDER SLOTS IN SPINDLE (SEE SKETCH ABOVE).
6. USING PARTLY REMOVED KEY TO STEER CYLINDER, SLIDE KNOB ON TO SPINDLE AS FAR AS IT WILL GO.
7. INSERT KEY FULLY & ROTATE TO RIGHT; WITH KEY ROTATED, PRESS KNOB UNTIL KEEPER SNAPS IN PLACE.
8. REMOVE KEY & PULL ON KNOB TO MAKE CERTAIN THAT KEEPER IS ENGAGED.



982 INSTRUCTION

TO "REVERSE" AND/OR "TIME" CYLINDER

1. INSERT KEY IN LOCK-SET (IN UNLOCKED POSITION) & ROTATE TO RIGHT ONE QUARTER TURN.
2. INSERT POINTED END OF SPANNER WRENCH INTO SQUARE HOLE IN COVER & EXERT PRESSURE AGAINST KNOB KEEPER. KNOB CAN THEN BE REMOVED. NOTE! — WHEN KNOB IS PARTLY REMOVED, RETURN KEY TO NEUTRAL & WITHDRAW PART WAY FROM CYLINDER. THEN REMOVE KNOB & CYLINDER.
3. WITH KNOB REMOVED, REVERSE CYLINDER BY ROTATING PARTLY WITHDRAWN KEY 180°.
4. ROTATE CYLINDER SPACER IN SPINDLE 180°.
5. TO PROPERLY "TIME" CYLINDER IN EITHER KNOB, ROTATE LOCKING LINK (IN CENTER OF SPINDLE) TO FULLY UNLOCKED POSITION. ROTATE BACK SLIGHTLY TO ALIGN WITH CYLINDER SLOT IN SPINDLE; THEN CONTINUE ROTATION IN SAME DIRECTION 180° (SEE SKETCH ABOVE).
6. USING PARTLY WITHDRAWN KEY TO STEER CYLINDER, SLIDE KNOB ON SPINDLE AS FAR AS IT WILL GO.
7. INSERT KEY FULLY & ROTATE TO RIGHT, WITH KEY ROTATED, PRESS KNOB UNTIL KEEPER SNAPS IN PLACE.
8. REMOVE KEY & PULL ON KNOB, TO MAKE CERTAIN KEEPER IS ENGAGED.

EATON YALE & TOWNE INC.

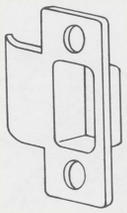
CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

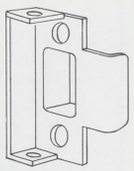
HEAVY DUTY LOCKSETS **900 Series**

Miscellaneous

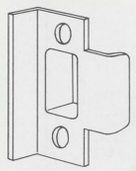
Special Strikes



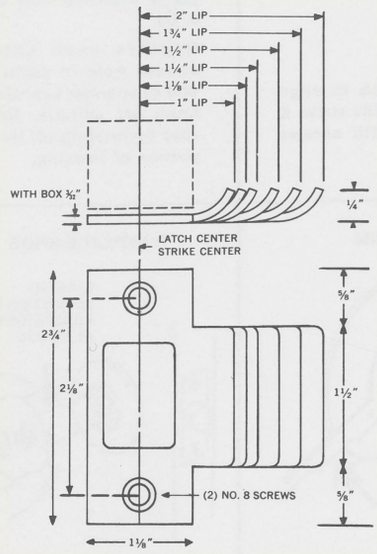
No. 1325
Standard Box Strike
Furnished on all orders with 1-¼" lip length to center. Other lengths to order.

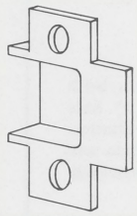


No. 1340
Rabbeted Box Strike for ½" Rabbet. 1¼" lip length to center.



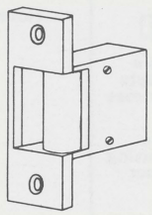
No. 1354
Protected Box Strike for 1¾" doors. No. 1358 for 1⅜" doors.

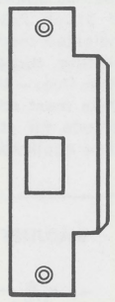




No. 1360
Cast Open Back Strike. 1" lip longer lips to order.

No. 1370
Electric Latch Release
6 to 12 V AC
3 to 6 V DC
For use with ½" throw latchbolts.
Case: Steel: 1⅞ x 2¾ x 1"
Face: Forged Brass: 3½" x 1⅜"
Latch Opening 1⅜"
Screws: ½" 8-32 machine screws
¾ 8 FH wood screws

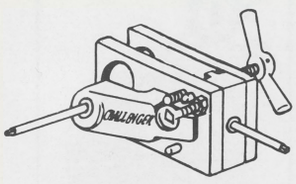




No. 1350
4 ⅞ x 1¼" with 1⅛" lip to center. Made to standard mortise template of Hollow Metal Assoc. Furnished with ½" 12x24 machine screws.

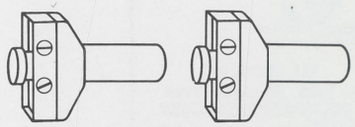
For faster and more accurate door preparation, it is recommended that you use the CHALLENGER installation aids designed for this purpose.

NO. 1111



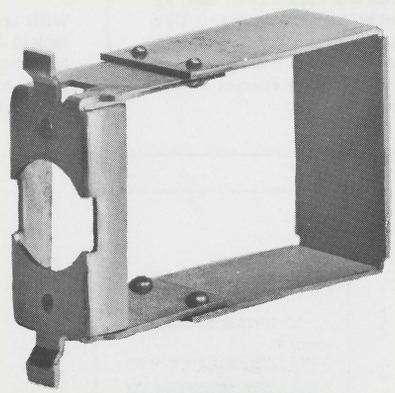
BORING JIG

NO. 1142 NO. 1143



LATCH STRIKE

MARKING CHISELS



Reinforcing Units

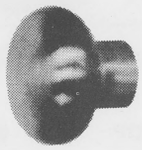
(For complete information see page 701)
Challenger's steel reinforcing units provide the essential reinforcing required in hollow metal doors for cylindrical locksets. Metal cutting templates available on request.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

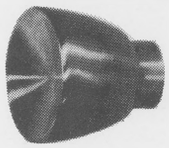
HEAVY DUTY LOCKSETS **900 Series**

Replacement Parts List

Closed Knobs



900-75AX
Cold Forged
900-78A
Bar Stock

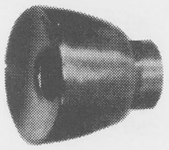


900-79A
Cold Forged
900-77A
Bar Stock

Open Knobs



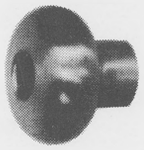
900-75X
Cold Forged
900-78
Bar Stock



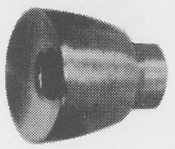
900-79
Cold Forged
900-77
Bar Stock

Cylinder Knobs

Shank Milled to Receive Cylinders

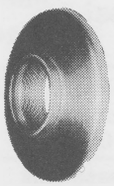


900-75K
Cold Forged
900-78K
Bar Stock

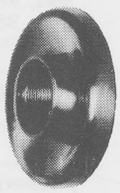


900-79K
Cold Forged
900-77K
Bar Stock

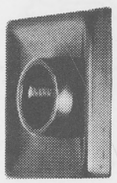
Outer Roses



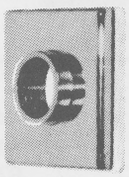
9554R



9554F



9554A

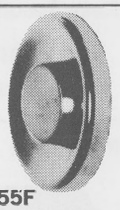


9554H

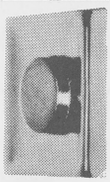
Blank Roses



9555R



9555F

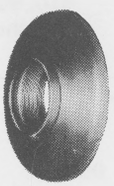


9555A

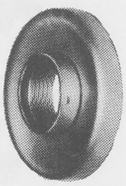


9555H

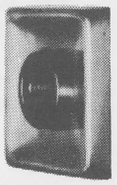
Inner Roses (Ferrule Pierced for Wrench)



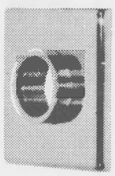
9553R



9553F



9553A



9553H

Thumb Turn



9570

	Atlas	Demeter	Explorer	Fiesta	Hercules	Jupiter	Kilo	Matador	Nike	Odin	Pluto	Regent	Sapphire	Thor	Yima	Zeus
900-75AX			X		X	X						X				
900-78A		X												X	X	X
900-79A	X			X				X			X					
900-77A							X		X	X			X			
900-75X			X		X	X						X				
900-78		X												X	X	X
900-79	X			X				X			X					
900-77							X		X	X			X			
900-75K			X		X	X						X				
900-78K		X												X	X	X
900-79K	X			X				X			X					
900-77K							X		X	X			X			

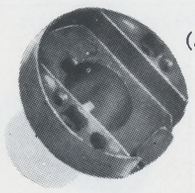
	Atlas	Demeter	Explorer	Fiesta	Hercules	Jupiter	Kilo	Matador	Nike	Odin	Pluto	Regent	Sapphire	Thor	Yima	Zeus
9554R								X				X	X	X		
9554F		X	X	X			X									
9554A	X					X			X							X
9554H					X					X	X					X
9553R								X				X	X	X		
9553F		X	X	X			X									
9553A	X					X			X							X
9553H					X					X	X					X
9555R								X				X	X	X		
9555F		X	X	X			X									
9555A	X					X			X							X
9555H					X					X	X					X

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

900 Series HEAVY DUTY LOCKSETS

Replacement Parts List

Housings with Covers



	Outer Part No.	Outer Used With	Inner Part No	Inner Used With
(Aluminum)	900-6-04	904, 984, 994 Functions	9502	All Functions
	9500	All Others		
(Bronze)	D 900-6-04	904, 984, 994 Functions	D 9502	All Functions
	D 9500	All Others		

Case



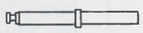
900-6C

Case Plate



900-33P

Rose Security Pin



CF 62

Housing Screws



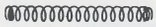
C 63
8/32 x 7/8 F.H.

Rose Security Pin Spring



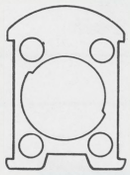
CF 28

Retractor Springs



900 - 5

Housing Plates



	Part No.	Used With
Outer	CF 8-72	972, 991, 998
	CF 8B	980, 981, 982, 983, 984, 988, 989
	CF 8A	All Others
Inner	CF 8-72	991, 989
	CF 8B	981, 982, 987, 998
	CF 8	All Others

Retractor Guides



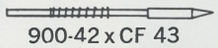
CF 24

Retractors



Part No.	Used With
9531	910, 910ST, 920, 955, 972, 977
9530	All Others

Hotel Indicator Pin & Spring



900-42 x CF 43

Emergency Release Link



Part No.	Used With
8020	910
8020T	910ST

Key Release Cams



Part No.	Used With
8007	955
9537	972
9581	931
8005	910, 910ST, 950, 960, 970, 971, 977, 990, 991, 993, 994

Escapements



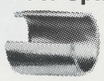
Part No.	Used With
8016-4	971, 987 Inside
8021-2	980, 981, 983, 984
8021-5	982 Inside
8021-6	982, 988 Outside

Keeper Block



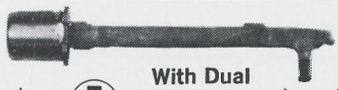
Part No.	Used With
9588	910, 910ST
9587	All Others
9589	972

Cylinder Spacer



900-40

Dogging Bar Assemblies



With Push Button

Part No.	Used With
9545	955
9544	910, 910ST, 920, 950

With Turn Button

9543

Used With
930, 933, 960

With Dual Purpose Button

9546

Used With
970, 977

With Shut Out Button

9548

Used With
972

Dogging Bar Pawls



Part No.	Used With
CF 25A	955
CF 25	910, 910ST, 920, 950, 970, 972, 977

Sleeves with Knob Keepers



Outer Part No.	Outer Used With
9511	900, 903.
9520	910, 910ST, 920, 930, 940
9521	980, 981, 982, 983, 984, 988, 989
9523	933
9522	972
9522-72	985
9522-85	931
9586	

Inner Part No.	Inner Used With
9522	991, 998
9511	903, 933, 983, 993
9510	930, 960, 970, 977
9512	971, 987
9513	972
9514	981, 982, 988, 989
9521	985
9511	931
9522-85	
9586	

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

LOCKSMITH SUPPLIES **1000 Series**

Cylinders and Key Blanks

Challenger Pin Tumbler Cylinders

The genuine pin tumbler cylinders produced by precision equipment at Challenger's factories from the finest materials available and accurately keyed with microscopic tolerances assures the owner of the finest pin tumbler cylinder available today.

Challenger manufactures several types of cylinders, all genuine pin tumbler for the various series of locksets.

Cylinders using .500 diameter plugs (Types A, AFH, AFV, B, C, and P)

All cylinders in this series are available with 5 or 6 pin tumblers. Constructed of cast or extruded brass with full height pin chambers. Springs are phosphor bronze, and precision fit pins and drivers are solid brass.

These cylinders offer the ultimate possible key changes available for the intricate keying system.

Cylinders using .450 diameter plugs (Types E, K and Z)

5 pin tumbler cylinders. Type E constructed of extruded brass, types K and Z constructed from pressure cast Zamak with a wrought brass or bronze cap. All utilize solid brass precision fit pins and drivers with phosphor bronze springs.

Challenger developed the .450 diameter plug to utilize the superior one piece seamless knob on the 500 and 800 series.

By lowering the height of the pin .025 and reducing the plug diameter .050 Challenger can achieve 9 full key change depths and offer practically unlimited key changes.

Symbols and Definition of Challenger Keying Terms

KD	Keyed to differ. Each cylinder is set to different key change number. Furnished unless specified otherwise.
KA	Keyed alike. Two or more cylinders set to the same key change number.
KA/ (quantity)	Keyed alike in sets as desired. When ordering specify KA/2 for two locksets or cylinders keyed to the same key change number. KA/3, KA/4, KA/5, KA/6 etc. for set of 3, 4, 5 or 6 respectively.
MK	Masterkeyed. Each cylinder in addition to its change key is operated by a specific masterkey. Cylinder can be ordered keyed alike (KA/MK) or to differ (KD/MK) in any combination and masterkeyed as required.
GMK	Grandmasterkeyed. Each cylinder is operated by a specific Grandmasterkey, masterkey and change key.
GGMK	Great Grandmasterkeyed. Each cylinder is operated by a specific Great Grandmasterkey, Grandmasterkey, Masterkey and change key.
EMK	Emergency Masterkeyed. (For hotel use) Each cylinder is to be operated by an emergency masterkey in addition to the required masterkeys and change keys. See lock functions of hotel locksets for proper operation of keys.
KTP	Maisoned. A cylinder which can be operated by specific keys in a set or keying system.

Masterkey Records

The name and location of all masterkeyed projects must be submitted with the order to the factory. The factory keeps a complete record of all master keyed systems. When ordering additional locksets or cylinders to any masterkeyed system, please furnish the following information if obtainable.

PROJECT_____

LOCATION_____
(city or county & state)

ORIGINAL CUSTOMER_____

ORIGINAL CUSTOMER ORDER #_____

CHALLENGER ORDER #_____

MASTERKEY #_____

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

1000 Series LOCKSMITH SUPPLIES

Cylinders and Key Blanks

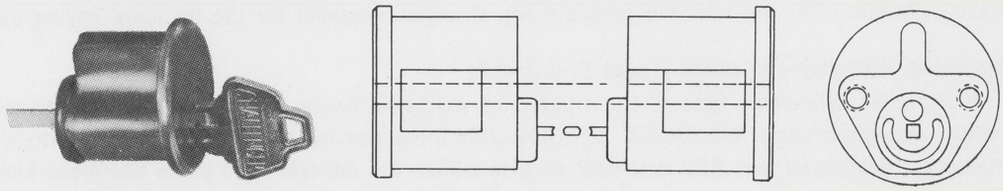
Rim Cylinders

NOT AVAILABLE IN ALUMINUM FINISH **Solid Brass with .500 Diam Plug**

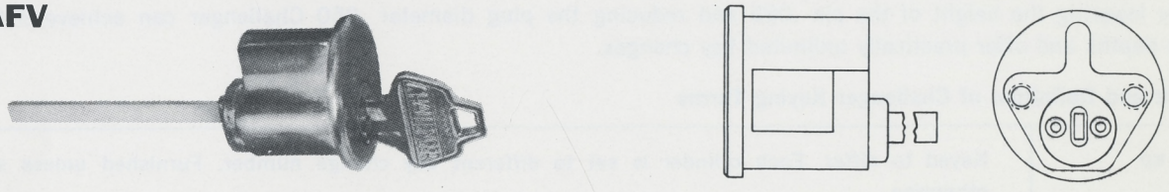
Type A



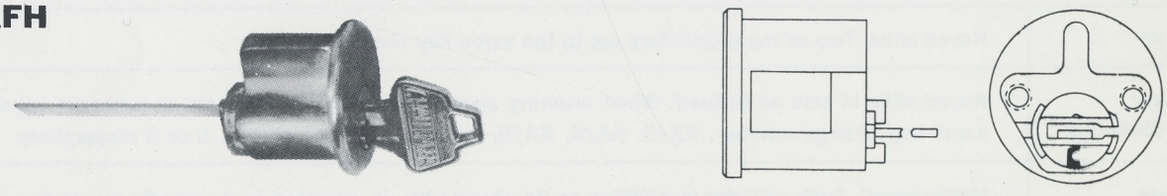
Type AD



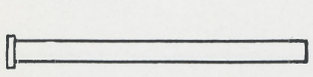
Type AFV



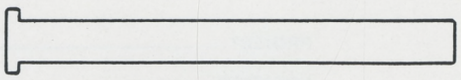
Type AFH



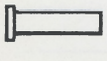
CATALOG NUMBER	USED WITH	PINS	TAIL PIECE	CYLINDER RING	BACK PLATE	CONNECT-ING SCREWS	
A	tubular deadlocks and night latches	5 or 6	#1089	1091-1 1091-2	none	1094	180° escapement
AD	double cylinder tubular deadlocks and night latches	5 or 6	#1090	1091-1 1091-2	none	1098	180° escapement
AFV	exit devices and rim locks	5 or 6	#1088	1092	1093	1094	
AFH	exit devices and rim locks	5 or 6	#1087	1092	1093	1097	



No. 1089 Tail Piece 5/32" sq X 2"



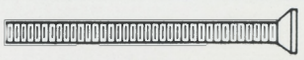
No. 1088 Tail Piece 1/16" x 1/4 x 3 1/16"



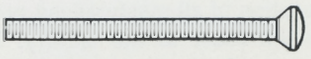
No. 1090 Tail Piece 5/32" sq x 7/16"



No. 1087 Tail Piece 3/32 x 5/16 x 2 5/8



No. 1098 Connecting Screw



No. 1094 Connecting Screw



No. 1097 Connecting Screw

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

LOCKSMITH SUPPLIES **1000 Series**

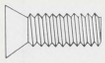
Cylinders and Key Blanks



No. ABD19
Escapement and Cap used on Types A and AD cylinders.



No. C3X
Cap used on Type AFV cylinders.



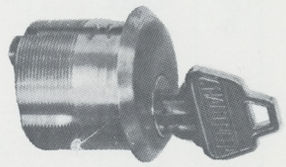
No. 1084
Screws #2/56 x ¼"

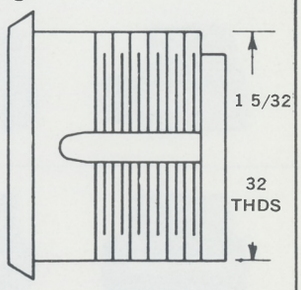


No. 1059
Retainer used on Type AFH cylinders.

Mortise Cylinders Type B

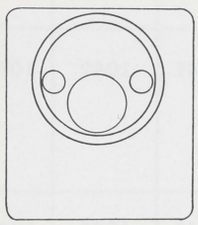
Solid Brass with .500" Diam. Plugs





Available in the following sizes:

1" 5 pin only. 1⅛, 1¼, 1½, 1¾, 2, 2¼, 2½, 2¾, 3" 5 or 6 pin furnished with No. 1083 cylinder ring and No. 1078 CAM unless otherwise specified.



No. 1093
Back Plate used on types AFH and AFV cylinders.

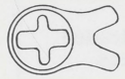
Cams for Type B Mortise Cylinders



No. 1078 Straight

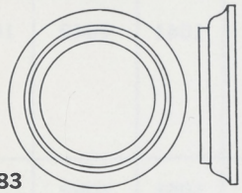
No. 1078A ⅝ Radius

No. 1078MS For Adams Rite MS Locks

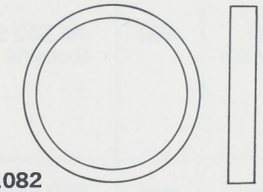


No. 1079A For 120 Series Deadlocks

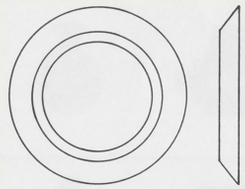
Cylinder Rings (Brass or Bronze)



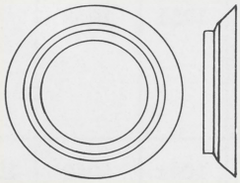
No. 1083
Adjustable Cylinder Ring.
¼" furnished unless 3/16 or 5/16" specified.



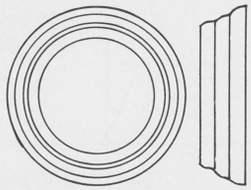
No. 1082
Blocking ring.
Available in ⅛", 3/16", ¼", 5/16", ⅜", 7/16", ½" thickness.



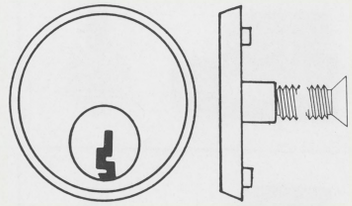
No. 1092
Cylinder Ring.



No. 1091-2
Cylinder Ring.
Used with No. 1091-1 for greater projection.



No. 1091-1
Cylinder Ring.



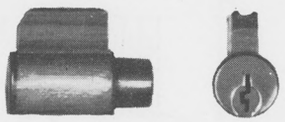
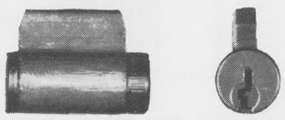
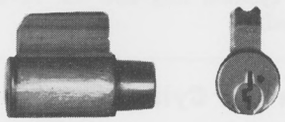
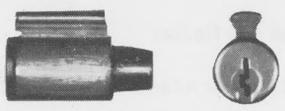
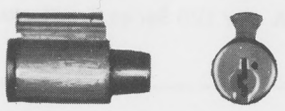
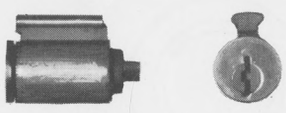
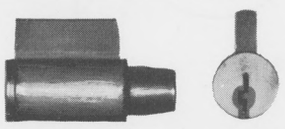
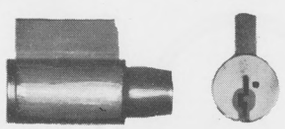
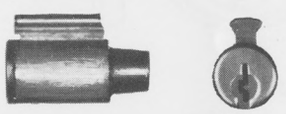
No. 1081B
Dummy Cylinder

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

1000 Series LOCKSMITH SUPPLIES

Cylinders and Key Blanks

Pin Tumbler Cylinders used in Cylindrical Locksets

TYPE		PINS	CONSTRUCTION	PLUG DIAM.	USED WITH	BOTTOM PINS AND NO.	Drivers NO.	SPRINGS NO.	SLIDE COVER NO.	TRU ARC RING RETAINER NO.
C		5 or 6	Extruded brass	.500	800 Series using 2 piece knobs. Except hotel functions.	1050	1051	1052	1071	1058
CA		5 or 6	Extruded brass	.500	Sliding Door locks. 180° escapement.	1050	1051	1052		special cap
CI		5	Extruded brass	.500	800 Series hotel functions using 2 piece knobs.	1050	1051	1052	1071	1058
E		5	Extruded brass	.450	800 Series using one piece seamless knobs except hotel functions.	1040	1041	1042	1072	1048
EI		5	Extruded brass	.450	800 Series hotel functions using one piece seamless knobs	1040	1041	1042	1072	1048
K		5	Pressure cast Zamak	.450	All 500 Series locksets	1040	1041	1042	1072	1048
P		5 or 6	Extruded brass	.500	900 Series except hotel functions	1050	1051	1052		1058
PI		5 or 6	Extruded brass	.500	900 Series hotel functions	1050	1051	1052		1058
Z		5	pressure cast Zamak	.450	800 Series using one piece seamless knobs only where shown by Catalog No.	1040	1041	1042	1072	1048

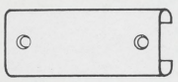
Available in US3 and US26 only.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

LOCKSMITH SUPPLIES **1000 Series**

Cylinders and Key Blanks

Parts for Cylinders Using .450 Diam. Plugs, Types E, K, and Z.



No. 1072
Slide Cover.



No. 1042
Phosphor Bronze Springs.

No. 1040
Brass Bottom Pins.

SIZE	LENGTH
00	.114″
11	.129″
22	.144″
33	.159″
44	.179″
55	.189″
66	.204″
77	.219″
88	.234″



No. 1041
Brass Drivers.

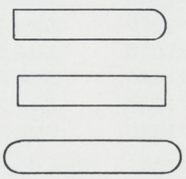
SIZE	LENGTH
0055	.175″
6688	.145″





No. 1048
Tru Arc Plug
retainer ring.

Parts for Cylinders Using .500 Diam. Plugs Types A, AFH, AFV, B, C, or P.



No. 1070
Slide Cover for type A, AFV, B.

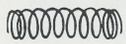
No. 1071
Slide Cover for type C.

No. 1073
Slide Cover for type AFH.

No. 1050
Brass Bottom Pins

SIZE	LENGTH
0	.164″
1	.179″
2	.194″
3	.209″
4	.224″
5	.239″
6	.254″
7	.269″
8	.284″





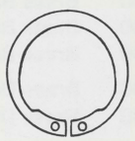
No. 1052
Phosphor Bronze Springs.

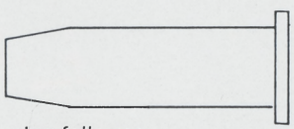
No. 1051
Brass Drivers.

SIZE	LENGTH
05	.209″
68	.164″

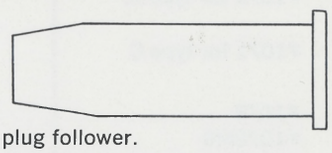


No. 1058
Tru Arc Plug
retainer rings
for type C, P.



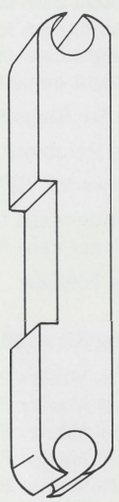


No. 1011
.450 diam. plug follower.



No. 1010
.500 diam. plug follower.

No. 1007
Universal Plug Jig for both .450 and .500 diam. plugs.

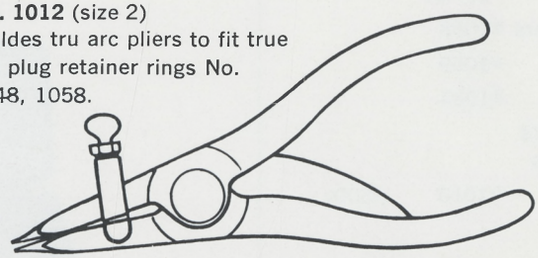


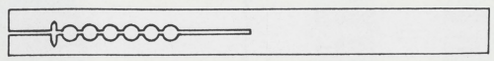
No. 1054
Brass Master Pins
for use in all cylinders.

SIZE	LENGTH
2	.030″
3	.045″
4	.060″
5	.075″
6	.090″
7	.105″
8	.120″



No. 1012 (size 2)
Waldes tru arc pliers to fit true arc plug retainer rings No. 1048, 1058.





No. 1008
Cylinder loading tool for type P cylinders.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

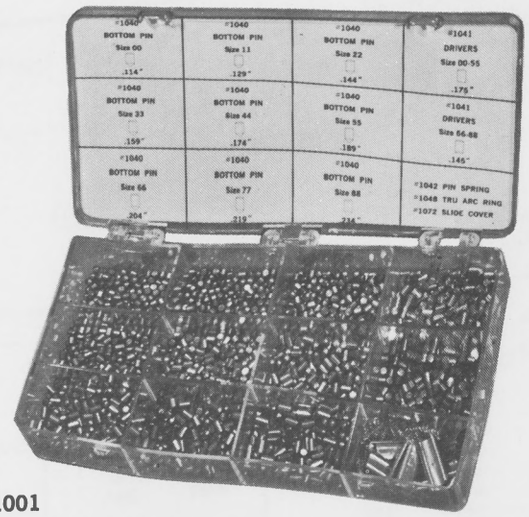
1000 Series LOCKSMITH SUPPLIES

Keying Kits

Keying Kit #1001

For cylinders type E, K, & Z, using .450 plug

100	Brass Bottom Pins	#1040	Size 00
100	Brass Bottom Pins	#1040	Size 11
100	Brass Bottom Pins	#1040	Size 22
100	Brass Bottom Pins	#1040	Size 33
100	Brass Bottom Pins	#1040	Size 44
100	Brass Bottom Pins	#1040	Size 55
100	Brass Bottom Pins	#1040	Size 66
100	Brass Bottom Pins	#1040	Size 77
100	Brass Bottom Pins	#1040	Size 88
100	Drivers	#1041	Size 00-55
100	Drivers	#1041	Size 66-88
50	Pin Springs	#1042	
25	Slide Covers	#1072	
50	Tru Arc Rings	#1048	
1	Plug Follower	#1011	(.450)

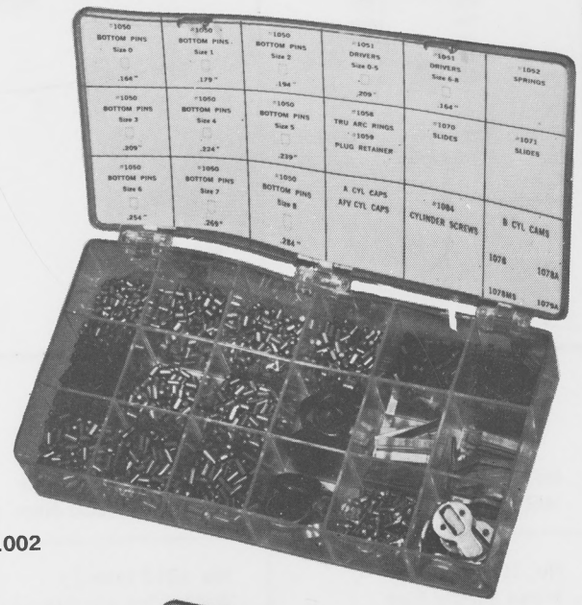


#1001

Keying Kit #1002

For cylinders type A, AFH, AFV, B, C, P, using .500 plug

100	Brass Bottom Pins	#1050	Size 0
100	Brass Bottom Pins	#1050	Size 1
100	Brass Bottom Pins	#1050	Size 2
100	Brass Bottom Pins	#1050	Size 3
100	Brass Bottom Pins	#1050	Size 4
100	Brass Bottom Pins	#1050	Size 5
100	Brass Bottom Pins	#1050	Size 6
100	Brass Bottom Pins	#1050	Size 7
100	Brass Bottom Pins	#1050	Size 8
100	Brass Drivers	#1051	Size 0-5
100	Brass Drivers	#1051	Size 6-8
100	Springs	#1052	
25	Slide Covers AFV, and B Cylinders	#1070	for type A,
25	Slide Covers Cylinders	#1071	for type C
2	Straight cam for B Cylinder	#1078	
2	Straight cam for B Cylinder	#1078MS	
2	Straight cam for B Cylinder	#1078A	
2	Straight cams for B Cylinder	#1079A	
25	Tru Arc Rings for C & P cylinders	#1058	
25	Plug Retainers	#1059	
25	Screws for "B" cylinder cams	#1084	
2	Cylinder caps for "AF" cylinders		
2	Cylinder caps for "A" cylinders		
1	Plug Follower	#1010	(.500)



#1002

Masterkeying Kit #1003

200	Brass Master Pins	#1054	Size 2
200	Brass Master Pins	#1054	Size 3
200	Brass Master Pins	#1054	Size 4
200	Brass Master Pins	#1054	Size 5
200	Brass Master Pins	#1054	Size 6
200	Brass Master Pins	#1054	Size 7
200	Brass Master Pins	#1054	Size 8

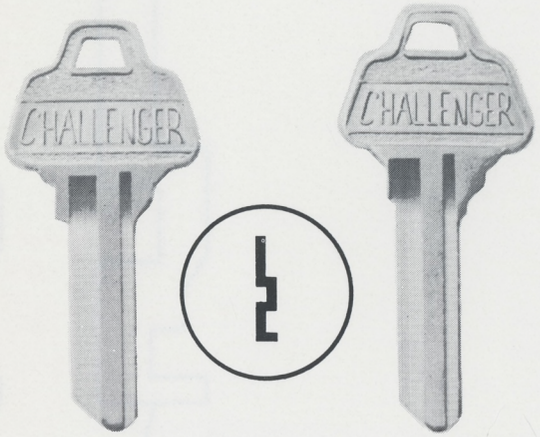


#1003

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

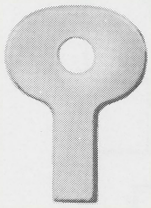
LOCKSMITH SUPPLIES **1000 Series**

Cylinders and Key Blanks

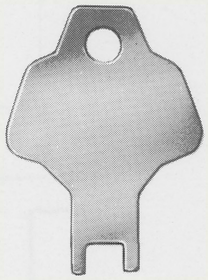


No. 1015 5 pin

No. 1016 6 pin

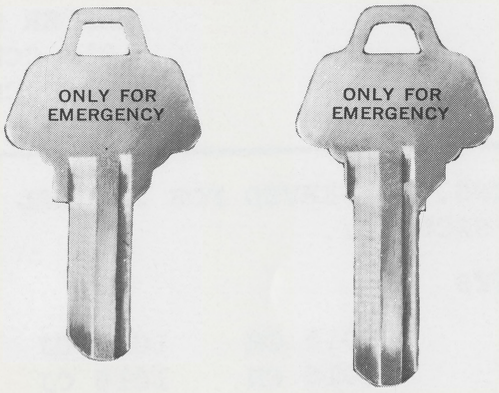


No. 1018
Emergency Key



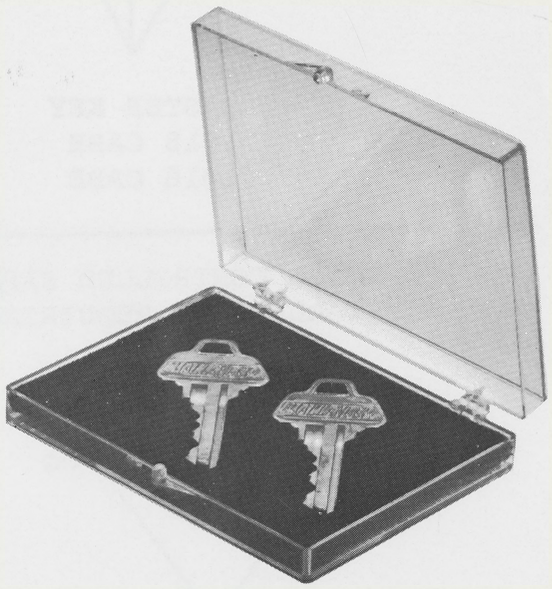
No. 1019
Spanner Key

Cut Emergency Master Keys
(For 72 Function Locksets)



No. 1015E 5 pin

No. 1016E 6 pin



Presentation Unit No. 1028

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
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LOCKSMITH SUPPLIES **1000 Series**

Key Blanks

CHANGE KEYS

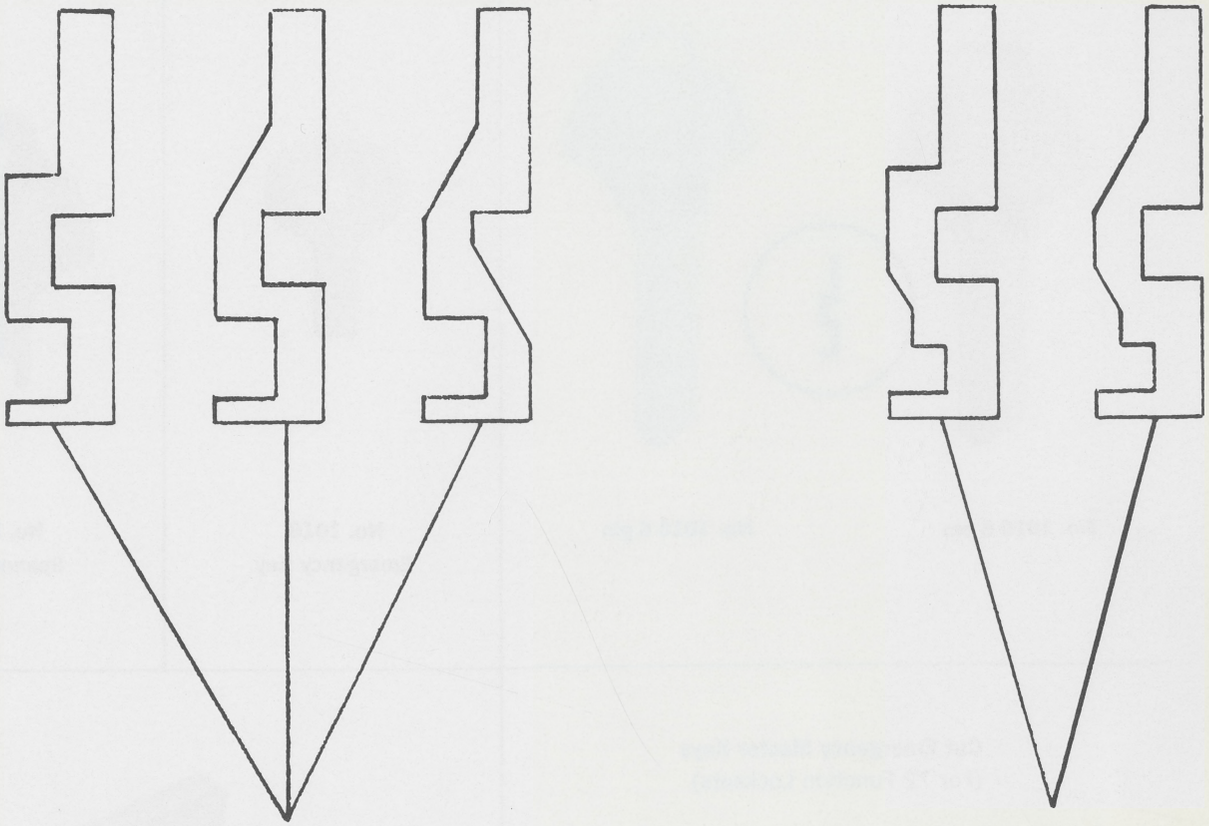
1015 CA
1016 CA

1015 CB
1016 CB

1015 CE
1016 CE

1015 CC
1016 CC

1015 CD
1016 CD



MASTER KEY
1015 CABE
1016 CABE

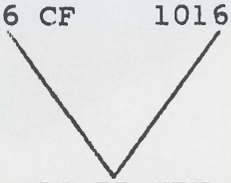
MASTER KEY
1015 CCD
1016 CCD

SPECIAL CONTROLLED SAFETY SECTIONS. RESERVED FOR SPECIAL INSTALLATIONS REQUIRING MAXIMUM SECURITY.

CHANGE KEYS

1015 CF
1016 CF

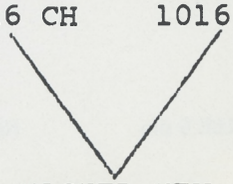
1015 CG
1016 CG



MASTER KEY
1015 CFG
1016 CFG

1015 CH
1016 CH

1015 CJ
1016 CJ



MASTER KEY
1015 CHJ
1016 CHJ

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CHALLENGER LOCK AND HARDWARE DIVISION
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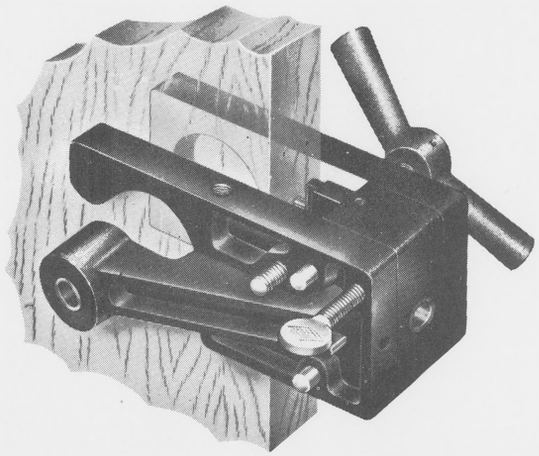
CHALLENGER

1100 SERIES

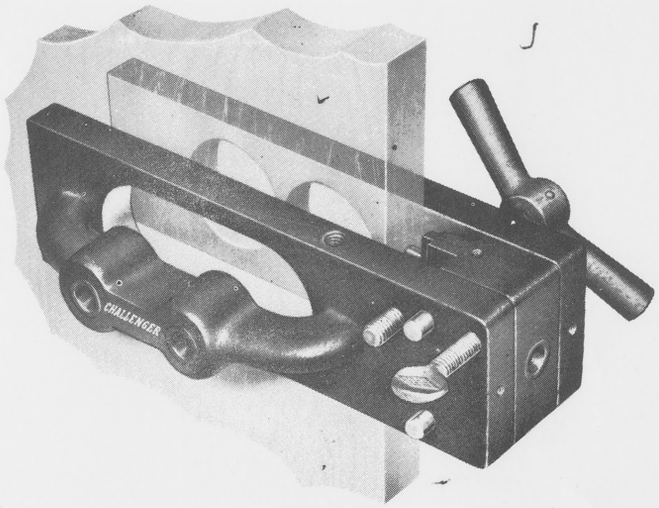
Lockset Installation Aids

Challenger lock installation tools are designed to facilitate the fastest possible installation with the greatest accuracy. Exclusive arm with oilite bearings to guide bits ensures positive positioning of holes at all times. Clamps firmly to the door. Bits will not follow grain in wood. Large handle for easy tightening. Adjusts to any thickness of door from 1⅜" to 2". Self-Centering. Design of the Challenger multi-spur bit allows boring from one side of the door without excessive splintering when breaking through. The backset dimension is taken from the center of the door (important when working on bevel edge doors). Also recommended for reboring doors where lock has previously been installed.

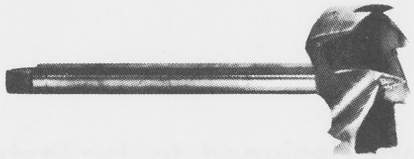
1100 Series LOCKSET INSTALLATION AIDS



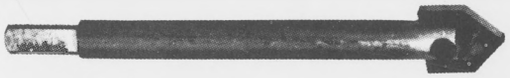
No. 1111 Boring Jig used for rapid and accurate drilling of doors 1⅜" to 2" thick for locksets using 2⅜" or 2¾" backset locksets



No. 1112 Boring Jig used for rapid and accurate drilling of doors 1⅜" to 2" thick for locksets using 2⅜", 2¾", or 5" backsets



No. 1121—2⅛" Boring Bit for 500, 800 and 900 series locksets. Used with No. 1111 Boring Jig



No. 1123—15/16" x 6" Boring Bit for 500 and 800 series locksets.
No. 1124—1" x 6" Boring Bit for 900 series locksets



No. 1125—15/16" x 9" Boring Bit for 500 and 800 series locksets
No. 1126—1" x 9" Boring Bit for 900 series locksets



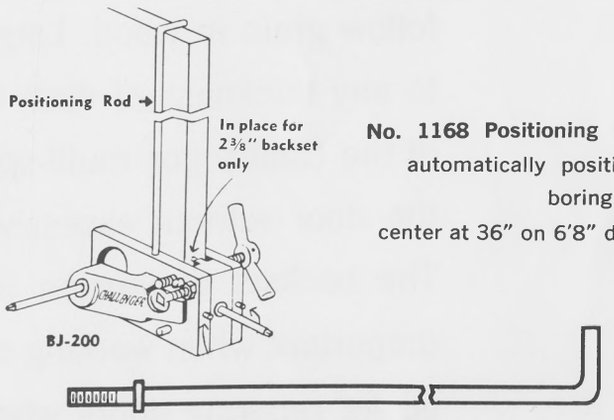
No. 1130
15/16" Replacement Blade



No. 1131
1" Replacement Blade



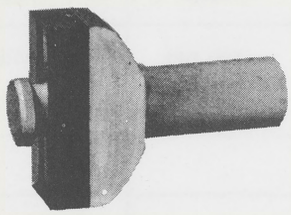
No. 1120 Driver ⅜" Shaft for use with Nos. 1121, 1123, 1124, 1125 boring bits



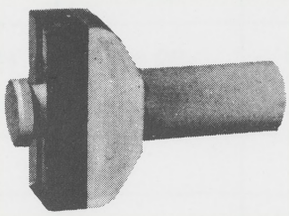
No. 1168 Positioning Rod automatically positions boring jig center at 36" on 6'8" door.

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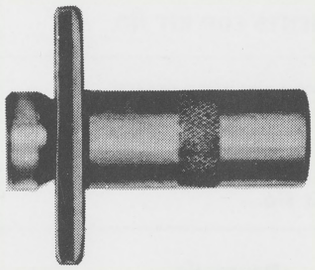
LOCKSET INSTALLATION AIDS **1100 Series**



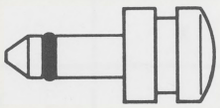
No. 1141 Latch Face Marking Chisel for marking latch face size 1" x 2¼". (500 and 800 series) Can also be used for full lip strike No. 1310, No. 1336 and No. 1338



No. 1142 Latch Face Marking Chisel for marking latch face size 1⅛" x 2¼" (900 series)



No. 1143 Strike Marking Chisel for marking strikes size 1⅛" x 2¾". No. 1320 and 1325



No. 1194—Backset Spacer for 2⅜" and 5" Backset

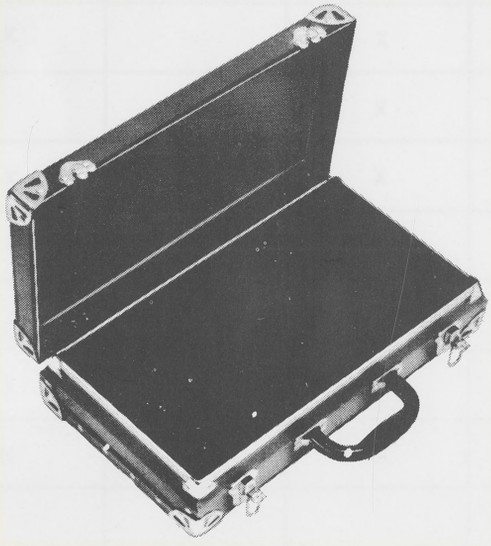
No. 1194-3¾—Backset Spacer for 3¾" Backset



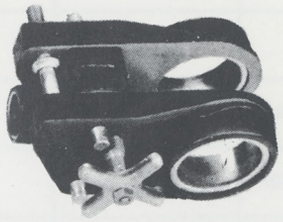
No. 1145—15/16" Strike Locator for locating strike pilot hole. (500 and 800 series)



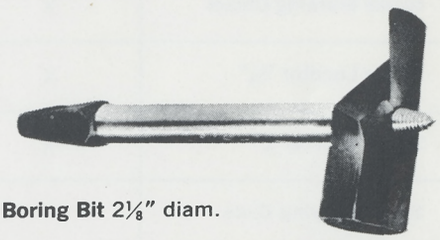
No. 1146—1" Strike Locator for locating strike pilot hole (900 series)



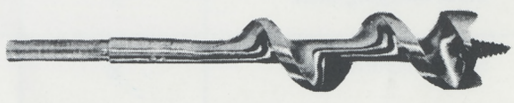
No. 1162 Fibre Carrying Case for No. 1111, 1112 boring jigs and accessories



No. 1114 Boring Jig 2⅜" backset only for 500 and 800 series



No. 1129 Boring Bit 2⅛" diam.



No. 1128 Boring Bit 15/16" diam.

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

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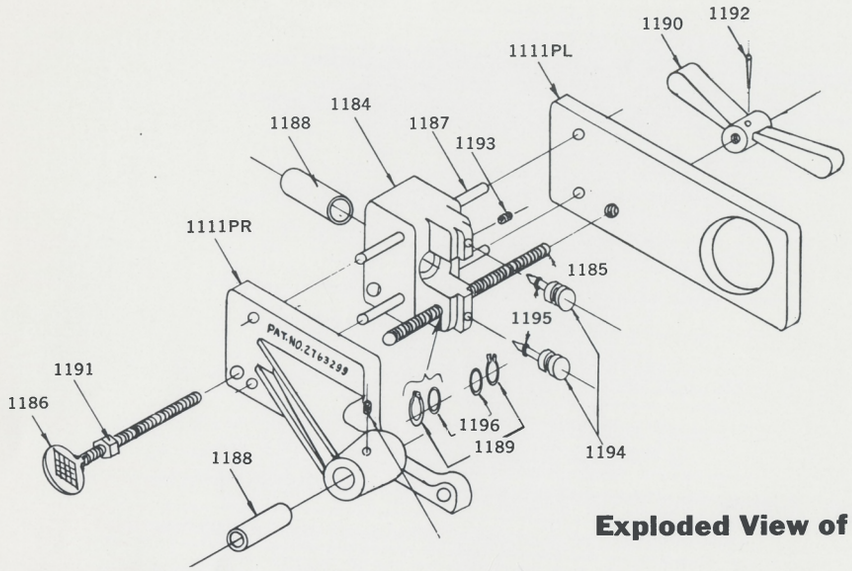
1100 Series LOCKSET INSTALLATION AIDS

COMPONENTS FOR KIT NO.		1100	1101	1102	1103	1104
FOR LOCKSET SERIES		500, 800, 900	500, 800	500, 800, 900	500, 800	800-900
USING BACKSETS		2⅜", 2¾", 5"	2⅜", 5"	2⅜", 2¾"	2⅜"	2¾"
CATALOG No.						
1111	Boring Jig			X	X	X
1112	Boring Jig	X	X			
1120	Driver	X	X	X	X	X
1121	Boring Bit 2⅛"	X	X	X	X	X
1123	Boring Bit 15/16 x 6"			X	X	
1124	Boring Bit 1 x 6"			X		X
1125	Boring Bit 15/16 x 9"	X	X			
1126	Boring Bit 1 x 9"	X				
1130	Replacement Blade 15/16"	X	X	X	X	
1131	Replacement Blade 1"	X		X		X
1141	Larh Face Marking Chisel	X	X	X	X	
1142	Larh Face Marking Chisel	X		X		X
1143	Strike Marking Chisel	X		X		X
1145	Strike Locator 15/16"	X	X	X	X	
1146	Strike Locator 1"	X		X		X
1161	Steel Carrying Case			X	X	X
1162	Steel Carrying Case	X	X			
	Screw Assortment	X	X	X	X	X

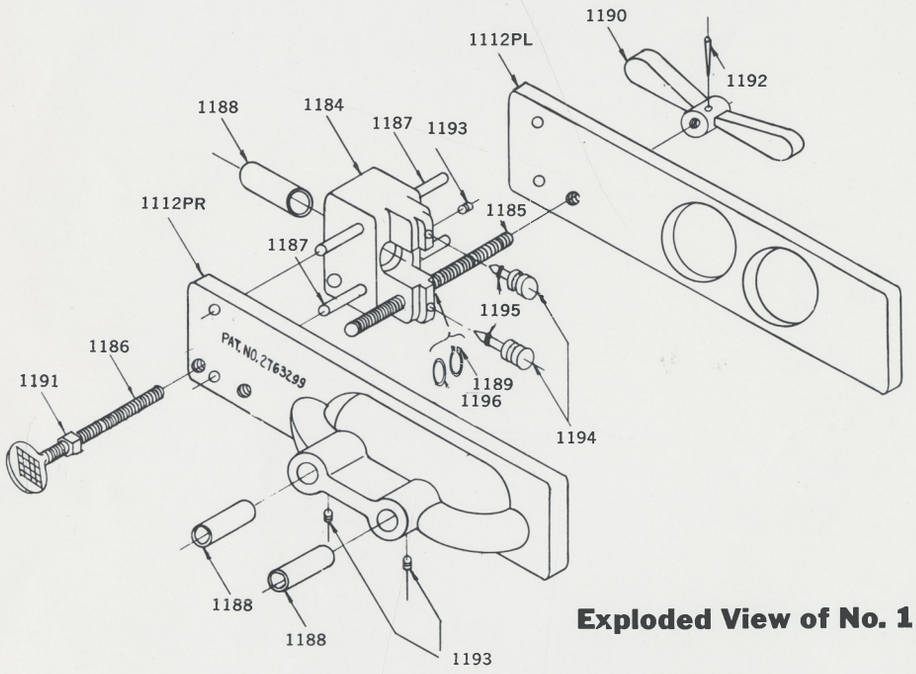
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

LOCKSET INSTALLATION AIDS **1100 Series**

Parts of Boring Jigs



Exploded View of No. 1111 Boring Jig



Exploded View of No. 1112 Boring Jig

PARTS FOR #1111 & #1112 BORING JIGS

NEW PART NO.	OLD PART NO.	DESCRIPTION
1112-PR	J-1	Right Plate
1112-PL	J-2	Left Plate
1111-PR	J-AX	Right Plate
1111-PL	J-BX	Left Plate
1184	J-CXS	Latch Guide
1185	J-5	Adjusting Screw
1186	J-6	Thumb Screw
1187	J-7	Guide Pins
1188	J-8	Bushing

NEW PART NO.	OLD PART NO.	DESCRIPTION
1189	J-9	Snap Ring
1190	J-10	Handle
1191	J-11	Lock Nut
1192	J-12	Taper Pins
1193	J-13	Set Screw
1194	J-14	Stop Pins
1195	J-15	"O" Rings
1196	J-17	Flat Washer
1198	J-18	Flat Head Socket Screw

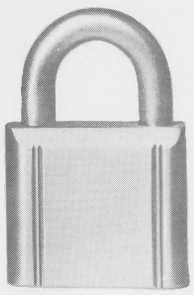
EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

AUXILIARY LOCKS **1200 Series**

Surface Applied Cabinet Locks



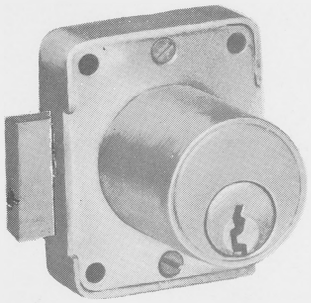
Padlock No. 1262

5 or 6 pin tumbler.

Case: Extruded brass, satin or buffed finish and lacquered 2" x 1 13/16" x 3 1/16".
Shackle: Hardened steel 3/8" diameter 7/8" shackle clearance. Other lengths shackle as specified to order. Available with 8" steel chain. Add "C" to catalogue No., i.e., 1262C.

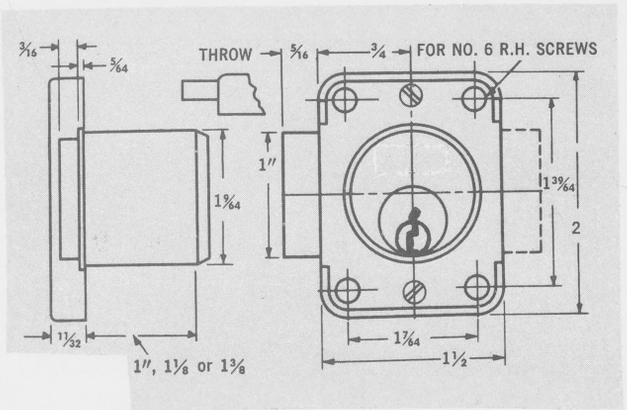
Padlock No. 1262LS.

Same as above except slide is loose for easy rekeying. Key is cut to change No. 00000.

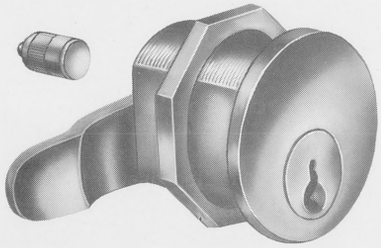


Cupboard or Wardrobe Lock No. 1234

OPERATION: Dead bolt shoots right and left.
MATERIAL: All brass. Heavy bolt.

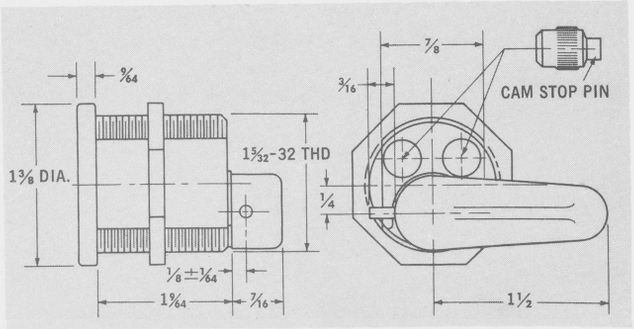


FEDERAL SPEC.: FF-L-486, Type 955.



Cabinet Lock Cylinder No. 1235

OPERATION: Key rotates plug 360°. Key removable in vertical position only. Cam stop pin packed with each cylinder for restricted cam rotation when desired.
MATERIAL: Brass cylinder, scalped head, brass plug, cast bronze cam.

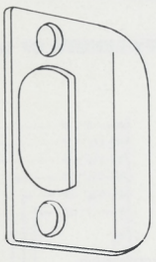


FEDERAL SPEC.: FF-L-486, Type 975, Type 975A

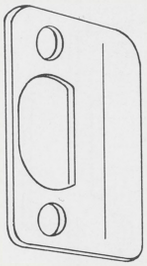
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CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

STRIKES **1300 Series**

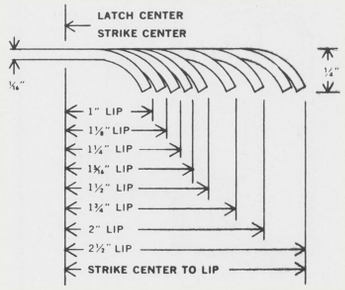
Standard Strikes



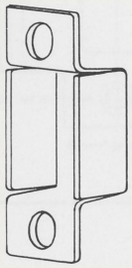
No. 1310
Strike, size 2¼" x 1 13/16",
furnished with locksets using types
K & Z cylinders with
1 5/16" lip to center standard.
Other lengths available
1", 1½", 1¾", 2".



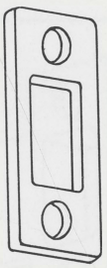
No. 1312
¼" Radius Strike,
size 2¼" x 1 13/16".
1 5/16" lip to center standard.
Other lengths available
1", 1½", 1¾", 2".



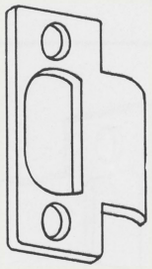
TO INSURE A PROPER JOB ALWAYS SPECIFY CORRECT LENGTH OF LIP.



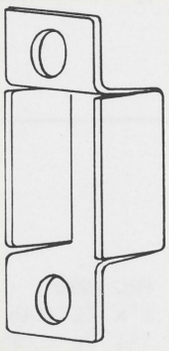
No. 1311
Wrought box for strikes
No. 1336, 1338,
1310, 1312.



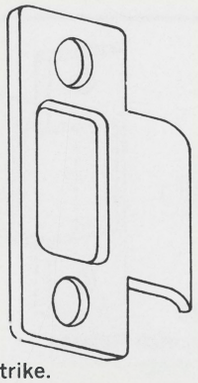
No. 1336
Standard for tubular
deadlocks. Size 1" x 2¼".



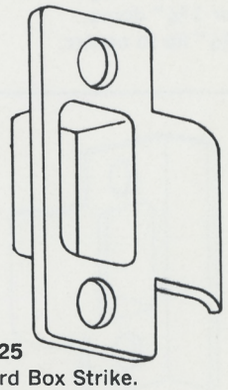
No. 1338
Standard for
tubular night latches.
Height 2¼".
1¼" lip to center.



No. 1321
Wrought Box for
No. 1320 Strike.
Furnished only
when so ordered.



No. 1320
Template Strike.
Size 2¾" x 1⅛".
Furnished on all 800 Series
except locksets with type Z cylinders.
1¼" lip to center standard.
Other lengths available
1", 1½", 1¾", 2", 2½", 3".

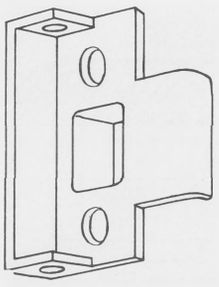


No. 1325
Standard Box Strike.
Size 2¾" x 1⅛".
Furnished on all orders
with 1⅛" lip to center.
Other lengths available
1", 1¼", 1½", 1¾",
2", 2½", 3".

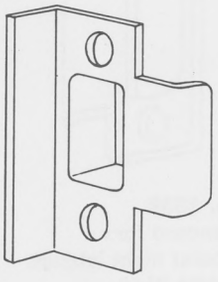
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

1300 Series STRIKES

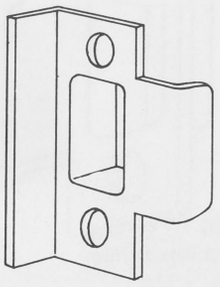
Special Strikes



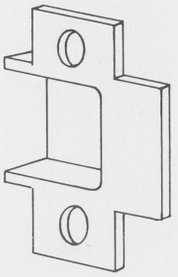
No. 1340
Rabbeted Box Strike
Size 2¾"x1⅛".
For ½" Rabbet.
1¼" lip to center.
Other lengths available
1", 1⅛".



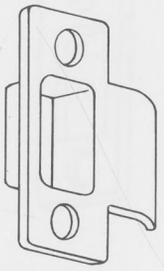
No. 1354
Protected Box Strike.
Size 2¾"x1⅛".
For 1¾" doors.
1¼" lip to center.



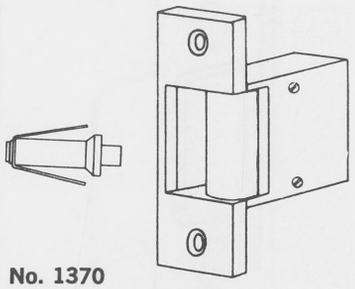
No. 1358
Protected Box Strike.
Size 2¾"x1⅛"
For 1⅜" doors.
1¼" lip to center.



No. 1360
Cast Open Back Strike.
Size 2¾"x1⅛".
1" lip. Longer lips
to order. Height 2¾".
For 1¾" doors only
using ½" throw latchbolts.

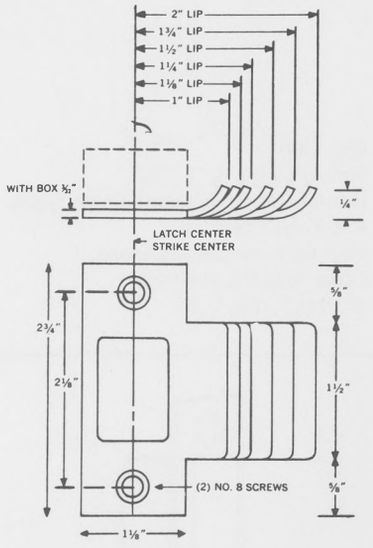


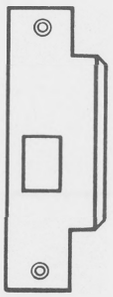
No. 1326
Deep Box Strike.
Size 2¾"x1⅛".
For ¾" throw latchbolts.
1¼" lip to center.
Other lengths available 1", 1⅛".



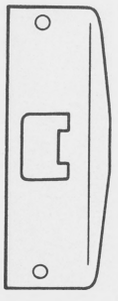
No. 1370
Electric Latch Release
6 to 12 V AC
3 to 6 V DC
For use with ½" throw latchbolts.
Case: Steel: 1⅞"x2¾"x1".
Face: Forged Brass: 3½"x1⅜".
Latch Opening: 1⅛".
Screws: ½" 8-32 machine screws.
¾ 8 FH wood screws.

ALWAYS SPECIFY LENGTH OF LIP REQUIRED.





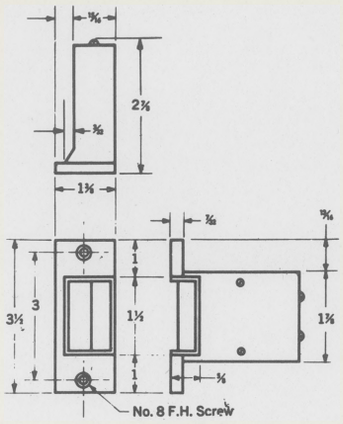
No. 1350
4⅞x1¼" with 1¼"
lip to center. Made to
standard mortise
template of Hollow Metal
Assoc. Furnished with
½" 12-24 machine screws.

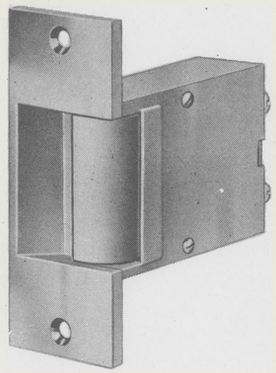


No. 1390
5"x1⅞" with
1¼" lip to center.

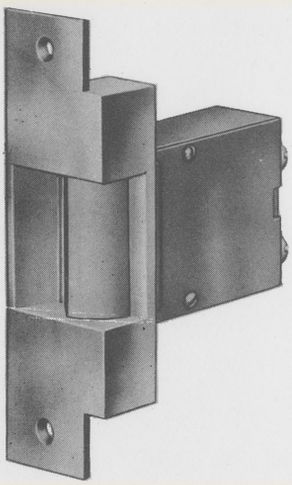
LockTronic Electric Devices

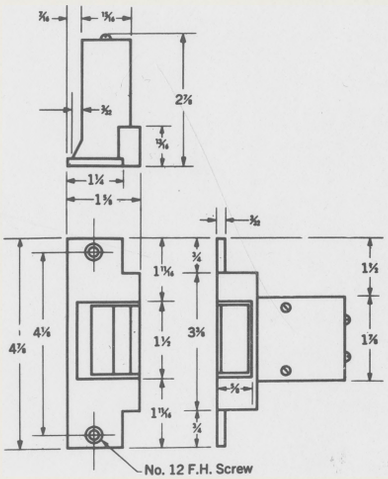
FACE: SOLID FORGED BRASS
CASE & PARTS: STEEL, HEAVY GAUGE
ELECTRO-MAGNETS: COPPER WIRE
LATCH: EXTRUDED BRASS
SIZE: 3½" H x 1⅜" W x 3" D





No. 1370
ELECTRIC LATCH RELEASE
*8-16 Volts AC, 3-6 Volts DC.
For use with 500, 700, 800, 900 Series 1/2" throw spring latch locksets.
Available in US4, US26D finish.

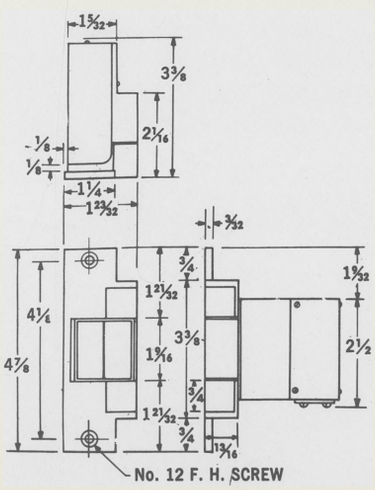


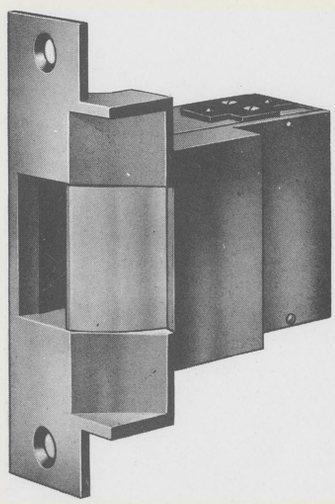


FACE: SOLID FORGED BRASS
CASE & PARTS: STEEL, HEAVY GAUGE
ELECTRO-MAGNETS: COPPER WIRE
LATCH: EXTRUDED BRASS
SIZE: 4⅞" H x 1¼" W x 3" D

No. 1371
ELECTRIC LATCH RELEASE
*8-16 Volts AC, 3-6 Volts DC.
For use with 500, 700, 800, 900 Series 1/2" throw spring latch locksets.
Available in US4, US26D finish.
Fits Modified ASA (4-7/8") cutout.

FACE & COVER: SOLID FORGED BRASS
PARTS: STEEL, HEAVY GAUGE
ELECTRO-MAGNETS: COPPER WIRE
LATCH: EXTRUDED BRASS
SIZE: 4⅞" H x 1¼" W x 3⅜" D





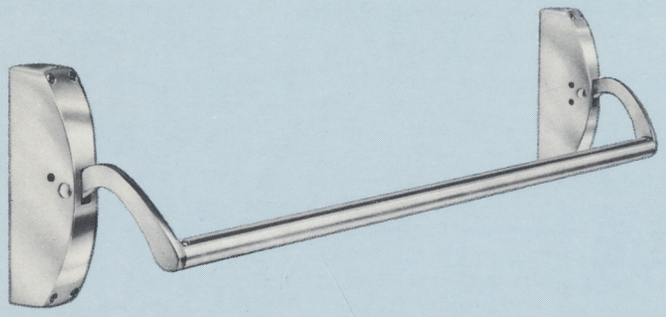
No. 1372
ELECTRIC LATCH RELEASE
*8-16 Volts AC, 3-6 Volts DC.
For use with 200, 300, 400 Series 1/2" or 3/4" throw mortise locksets without deadbolt.
Available in US4, US26D finish.
Fits Modified ASA (4-7/8") cutout.

CHALLENGER Lock Company 2349 West La Palma Avenue Anaheim, California

*Available at extra cost for voltages up to 48.

2300 SERIES

PANIC EXIT DEVICES



EATON YALE & TOWNE INC.

CHALLENGER®

LOCK AND HARDWARE DIV.

Challenger 2300 Series Panic Exit Devices compare with the very best . . . in quality . . . in function . . . in finish. ■ Advanced design and engineering have resulted in an institutional exit device that features major improvements in strength, operating ease and reduced maintenance needs. ■ Series 2300 Exit Devices are universal and non-handed, and fit most narrow stile doors — even down to 2½". Models are available in rim, improved vertical rod and mortise types with wide choice of smartly styled trim in all standard finishes. All trim is thru-bolted for tighter, tamper-proof installation. Drop forged arms provide maximum strength at point where stress is most severe. ■ Stringent quality control techniques provide assurance to the architect, builder and owner that Challenger 2300 Series Panic Exit Devices will provide the ultimate in quality and dependable service for years to come.

Challenger Lock & Hardware Division, Eaton, Yale & Towne, Inc.
2349 W. La Palma Avenue, Anaheim, California

2300 Series PANIC EXIT DEVICES

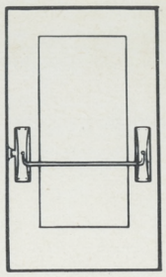
INDEX:

RIM DEVICE . . . . . **page 2304**
VERTICAL ROD DEVICE . . . . . **page 2309**
MORTISE LOCK DEVICE . . . . . **page 2313**

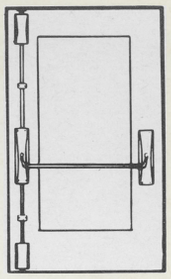
APPLICATIONS:

SINGLE DOORS

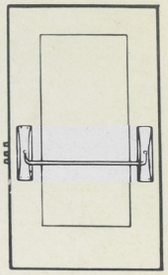
Challenger Exit Devices can be used on either single doors or pairs of doors as shown. The various device functions and exterior trims are shown with their respective devices.



RIM DEVICE

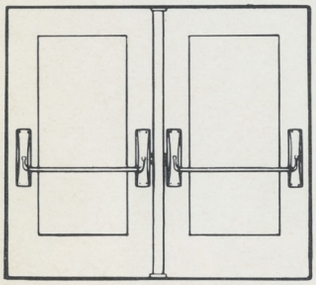


VERTICAL ROD DEVICE

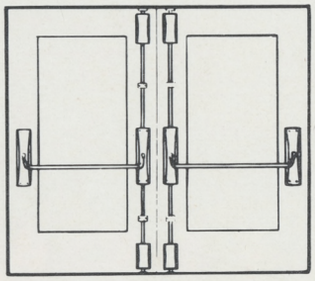


MORTISE LOCK DEVICE

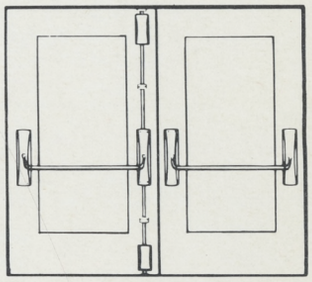
PAIRS OF DOORS



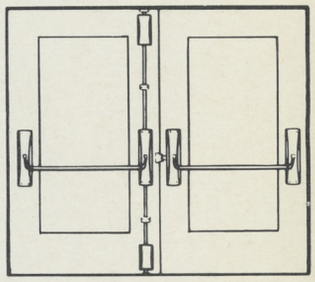
Rim Device Inactive Leaf with removable mullion — Rim Device Active Leaf



Vertical Rod Device Inactive Leaf — Vertical Rod Device Active Leaf



Vertical Rod Device Inactive Leaf — Mortise Lock Device Active Leaf



Vertical Rod Device Inactive Leaf — Rim Device Active Leaf

LHR (Left Hand Reverse) Leaf shown as active, if desired the RHR (Right Hand Reverse) Leaf may be used as the active leaf.

SPECIFICATIONS:

Challenger 2300 Series Panic Exit Devices are manufactured from Brass, Bronze, and stainless steel material.

CASES: Cast Brass or Bronze, 7¾" x 1⅝" x 2⁹⁄₁₆". (Latch and Hinge Sides) Rim, Vertical Rod and Mortise Devices. Projection of device 4¹³⁄₁₆", 2¹³⁄₁₆" when dogged.

LEVER ARMS: Forged Brass or Bronze.

ROD LATCH CASES: Cast Brass or Bronze, 3½" x 1⅝" x 1¹⁵⁄₁₆". (Upper and Lower) Vertical Rod Devices.

VERTICAL RODS: Seamless Brass or Bronze Tubing, ½" diameter.

ROD GUIDES: Cast Brass or Bronze, 3 furnished. 2 for upper rod, 1 for lower rod.

CROSSBAR: Seamless Brass, Bronze or stainless steel, 1" diameter. Steel reinforcing tube available when specified.

LATCHBOLTS: Solid Brass or Bronze: ¾" Throw on Rim and Mortise devices. ⅝" throw on upper Vertical rod latches. Lower rod: ⅝" throw on "V" devices, ½" throw on "VB" devices.

DOGGING FEATURE: Dogging screw at both cases operated by dogging key No. 2320. Available less dogging feature when specified.

CYLINDERS: Solid Brass or Bronze, 5 or 6 pin tumbler cylinder. Type AFP, Rim cylinder, on rim devices Type B, Mortise cylinder on Mortise lock devices Type BL, Mortise cylinder on vertical rod devices.

TRIM: Cast Brass, Bronze or aluminum secured by thru bolts to latch case.

UNDERWRITERS LISTING: Challenger 2300M Mortise exit devices are listed by Underwriters Laboratories for single hollow metal and steel composite labeled fire doors. Specify by adding "ULF" to catalog number "ie": H2380M ULF. Guide 120.1D 16.2.6 File R5135. Challenger 2300 Series rim, mortise lock and vertical rod exit devices are listed under Panic Hardware, accident Equipment List. Guide 105E16, File SA4147.

Meets the requirements of Federal Specifications FF-H-106a: types as shown.

HOW TO ORDER

Challenger 2300 Series Exit Devices can be conveniently carried in stock for rapid delivery. Both rim and vertical rod devices are fully reversible. To order devices for stock simply order by catalog number, design, finish and symbol "KD." Mortise lock devices are handed. (Specify hand). "KD" Devices are manufactured for doors up to 3′6″ x 7′0″ x 2¼″ thick. Cross bar will be supplied cut to 36″ with holes for rivets drilled at one end only. When ordering rim and vertical rod devices other than "KD" (Knocked down for stock), the following information is required:

1. Quantity
2. Device Number
3. Design of Trim
4. Finish

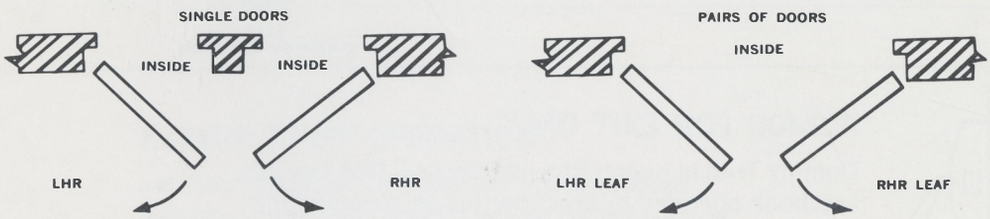
EXTERIOR TRIM FINISHES

US3 Brass, Polished
US10 Bronze, Dull
US10B Bronze, Oil Rubbed
US26D Dull Chrome Plated
US28 Aluminum, Anodized
DJ Dull Japaned Sprayed

DEVICE FINISHES

US3 Brass, Polished
US10 Bronze, Dull
US10B Bronze, Oil Rubbed
US26D Dull Chrome Plated
DJ Dull Japaned Sprayed

5. Width of Door (each leaf if pair of doors)
6. Height of door (vertical rod device only)
7. Thickness of door
8. Hand of doors



9. Door material (hollow metal, wood, etc.)
10. Frame material (channel iron, pressed steel, wood, etc.)
11. Width and thickness of stop
    A. If removable mullion is required, specify sill and head conditions.
    B. Specify strike desired, strike lip to center on Mortise devices.
12. Width of door stile.

ADDITIONAL INFORMATION REQUIRED FOR VERTICAL ROD DEVICES

13. Head Condition.
    A. Thickness of stop.
    B. If flush transom panel is used specify type of meeting rail, and if rabbeted height of rabbet.
14. Sill Condition.
    A. If Challenger Threshold not ordered specify lower strike desired and fastenings.

If exit devices are to be used on pairs of doors, specify device used on other leaf.

PANIC EXIT DEVICES ORDERED TO SIZE ARE NOT RETURNABLE

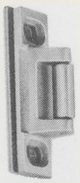
2300 Series PANIC EXIT DEVICES

CHALLENGER 2300R SERIES RIM EXIT DEVICES

The choice of most architects for single door applications. Rim Exit devices are also recommended for pairs of doors when used in conjunction with the Challenger removable mullion. Excellent security is provided as the strike is located on the stop, away from the edge of the door.

All of the operating mechanism is located in the active surface applied case assuring minimum maintenance costs. Wood door breakage is reduced with the rim panic exit device which eliminates the mortising of the door, weakening the stiles.

For doors 1⅜" to 2¾" thick.



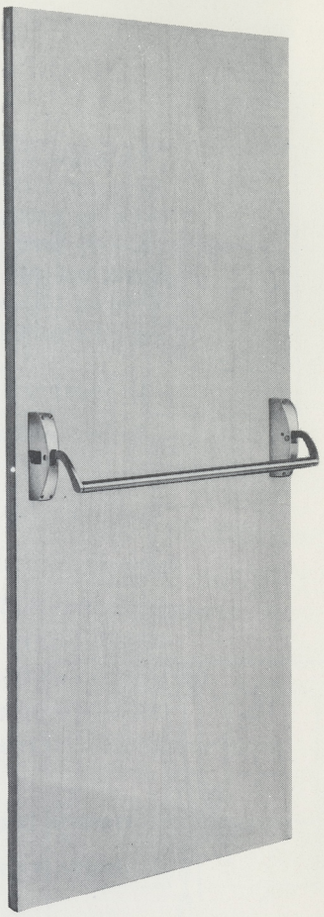
2333
STANDARD STRIKE



2334



2339
NARROW BACKSET



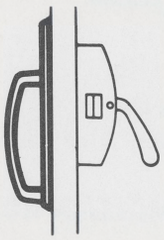


2340R FOR EXIT ONLY

Latchbolt operated by cross bar inside. No outside trim or cylinders. Latchbolt held retracted by dogging device.

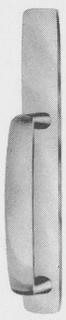
FEDERAL TYPE 810

NO OUTSIDE TRIM



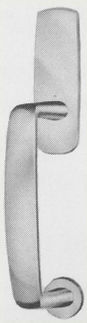
P2340R FOR EXIT ONLY

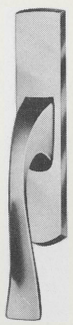
Dummy Trim to match Rim and Vertical Rod Devices. Latchbolt operated by cross bar inside. Door by pull outside when latchbolt is held retracted by dogging device. No outside cylinder.



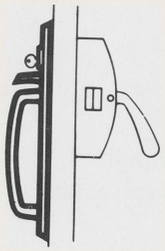








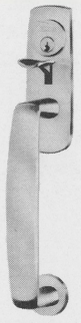
DESIGN	IMPERIAL	CROWN	ILEX	CASCADE	
Pull No.	2302	2302	2312	2312	2319
Size	1¾" x 13½"	1⅞" x 12"	1¾" x 13½"	1⅞" x 12"	1¾" x 10¾"
Grip	Straight	Straight	⅝" Offset	⅝" Offset	Lever
Grip Centers	7¼"	7¼"	7¼"	7¼"	
Projection	2½"	2½"	2⅜"	2⅜"	2¼"
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28	10, 26D, 28	10, 26D, 28	10, 26D, 28

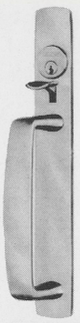


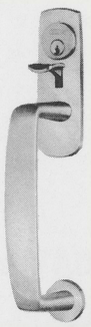
H2380R THUMBPIECE OPERATION

Latchbolt operated by cross bar inside or thumbpiece outside except when thumbpiece is locked by key outside. Latchbolt is held retracted by dogging device.

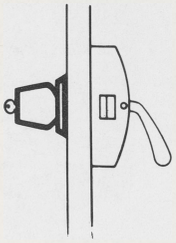








DESIGN	IMPERIAL	CROWN	ILEX	CASCADE
Pull No.	2300	2300	2310	2310
Size	1¾″ x 13½″	1⅞″ x 12″	1¾″ x 13½″	1⅞″ x 12″
Grip	Straight	Straight	⅝″ Offset	⅝″ Offset
Grip Centers	7¼″	7¼″	7¼″	7¼″
Projection	2½″	2½″	2⅜″	2⅜″
Cylinder	AFP	AFP	AFP	AFP
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28	10, 26D, 28	10, 26D, 28

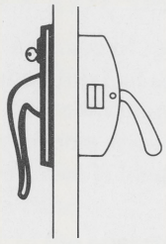


K2380R KNOB OPERATION

Latchbolt operated by cross bar inside or knob outside except when knob is locked by key outside. Latchbolt is held retracted by dogging device.

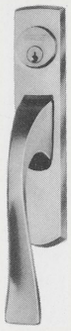
FEDERAL TYPE 810K

2300 Series PANIC EXIT DEVICES

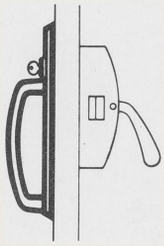


L2380R LEVER PULL OPERATION

Latchbolt operated by cross bar inside or upward movement of lever pull outside except when lever is locked by key outside. Latchbolt is held retracted by dogging device.



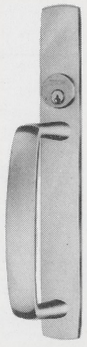
Lever No.	2308
Escutcheon	1¾″ x 8⅛″
Lever	7¼″ Overall
Projection	2¼″
Cylinder	BL — 1⅛″
Available U.S. Finishes on trim	10, 26D, 28



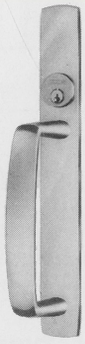
P2390R PULL OPERATION

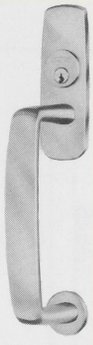
Latchbolt operated by cross bar inside or cylinder outside. Latchbolt is held retracted by dogging device.

FEDERAL TYPE 810H

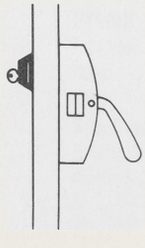








DESIGN	**IMPERIAL**	**CROWN**	**ILEX**	**CASCADE**
Pull No.	2301	2301	2311	2311
Size	1¾″ x 13½″	1⅞″ x 12″	1¾″ x 13½″	1⅞″ x 12″
Grip	Straight	Straight	⅝″ Offset	⅝″ Offset
Grip Centers	7¼″	7¼″	7¼″	7¼″
Projection	2½″	2½″	2¼″	2¼″
Cylinder	AFP	AFP	AFP	AFP
U.S. Finishes	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28	10, 26D, 28	10, 26D, 28



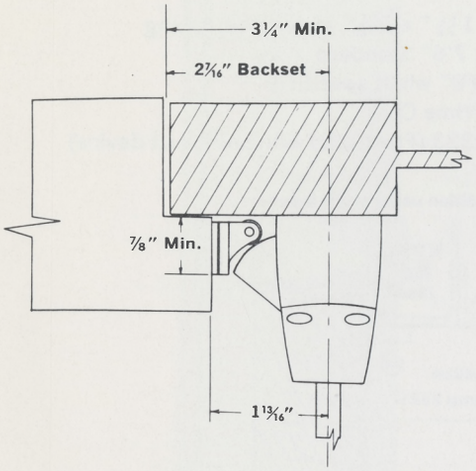
2394R CYLINDER OPERATION

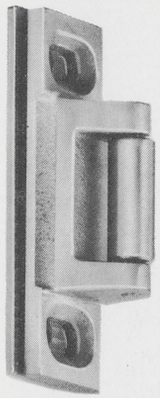
Latchbolt by cross bar inside or cylinder outside. NO OUTSIDE PULL. Latchbolt is held retracted by dogging device.

CYLINDER TYPE AFP

STRIKES FOR RIM DEVICES

All rim strikes have roller action for easy soft latching. Strikes 2333 and 2339 provide 5/16" adjustment through the use of special grooved ratchet plates. Clearance between strike roller and latchbolt cannot exceed 1/16".

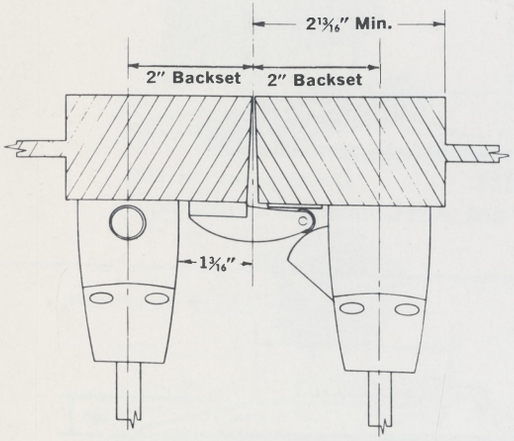


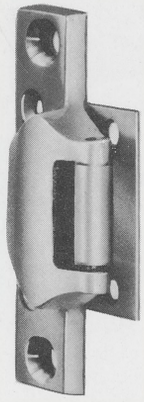


Size ⅞" x 2⅞"

2333
STANDARD ADJUSTABLE STRIKE

Furnished on all rim exit devices unless otherwise specified. *ALSO USED ON REMOVABLE MULLIONS AND AS THE UPPER STRIKE ON VERTICAL ROD DEVICES.*

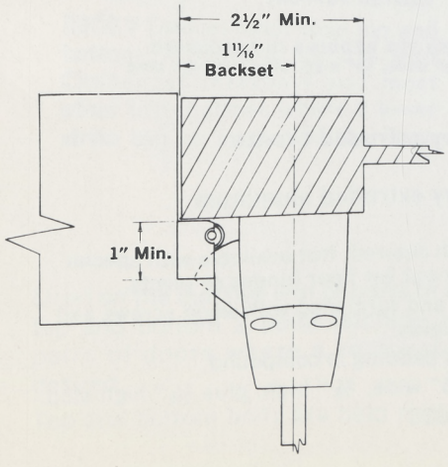


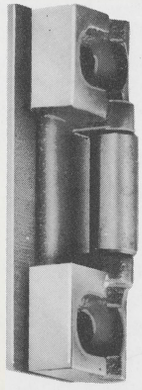


Size 1⅞" x 3 13/16"

2334
OVERLAP STRIKE

Supplied when specified for use on inactive leaf of pairs of doors when rim device is used in conjunction with a vertical rod device on inactive leaf.





Size ⅞" x 2⅞"

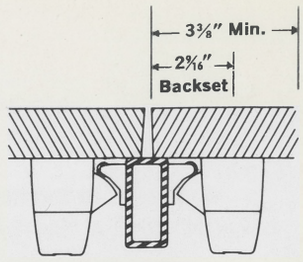
2339
MORTISE STRIKE

Available for use with narrow stile doors. Strike must be mortised into stop flush with frame. Strike lip furnished to protect frame.

2300 Series PANIC EXIT DEVICES

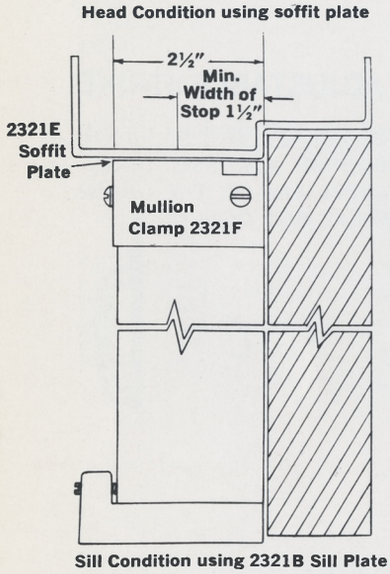
MULLION

Challenger #2321 or #2321T removable steel mullion is used in conjunction with rim exit devices on pairs of doors to provide a weathertight installation. The mullion not only covers the crack between the doors, it also converts the opening into two single doors improving traffic flow. Mullion can be easily removed for moving furniture or other objects. **Federal Type 811**



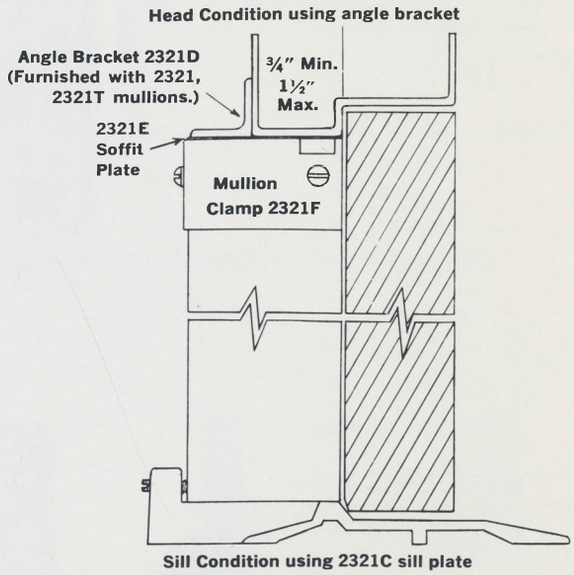
Plan View

Mullion: 1½" x 2½" heavy steel tubing
Lengths: 7'6" Standard
Up to 10'0" when specified
Finish: Prime Coat
Strike: 2333 (Furnished with panic exit device)



2321

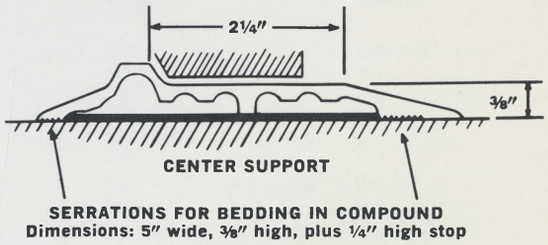
Elevations



2321T
For use with Challenger Threshold

THRESHOLD

The use of the #2325A or #2325B threshold provides protection from wind or rain. The threshold can be used with the Challenger removable mullion #2321T on pairs of doors for a weathertight installation. The threshold stop acts as a bottom strike for Challenger vertical rod exit devices. The threshold's smooth surface does not allow dirt to accumulate. The beveled no-trip stop is an integral part of the threshold and cannot become loose.

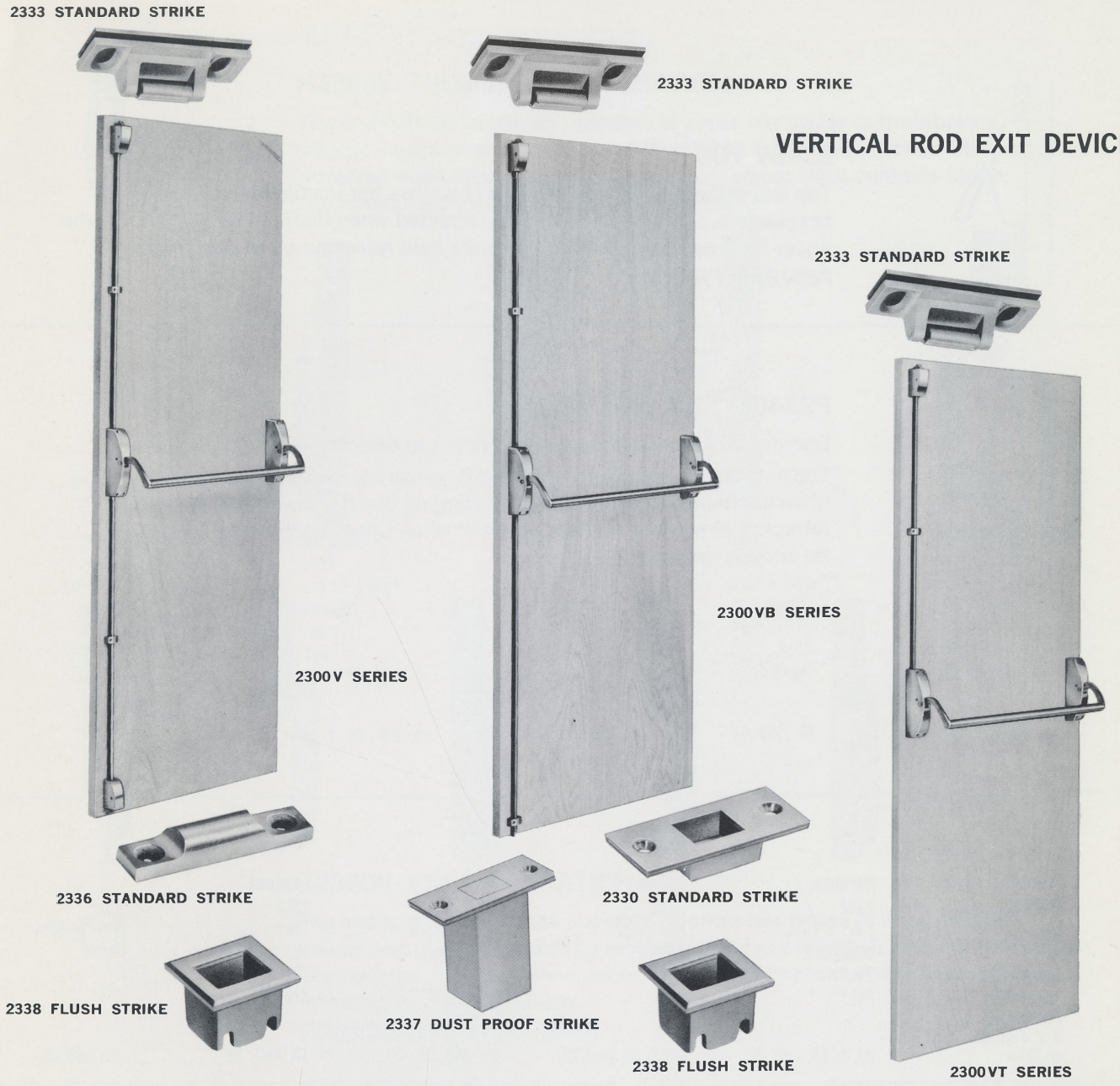


2325B Heavy extruded bronze

2325A Heavy extruded aluminum

Specify length desired. Not available with special end details or cut for floor hinges or pivots.
Countersunk and furnished with wood screws and expansion shields.
Serrations for bedding in compound.
Dimensions 5" wide, ⅜" high, plus ¼" high stop.
Federal type 833

VERTICAL ROD EXIT DEVICES



2300 V Devices latch case top and bottom recommend for use with Challenger threshold and most other installations where a lower strike can be applied to the floor.

2300 VB Devices latch case on top, deadbolt on bottom. Recommended for use on installations where strike must be flush with floor, or a hole can merely be drilled in a flat metal sill to provide the strike.

2300 VT Devices top latch case only recommended for interior locations which require only limited security. No bottom strike to clutter floor.

Used on the inactive leaf of pairs of doors, doors where top and bottom 2 point latching is desired, and on pairs of doors where a removable mullion is not desired.

Top and bottom bolts are held retracted when door is open, automatically released when top latch contacts strike. Bottom latch has independent action. Top remains latched even when lower strike is not operative or when bottom latch or bolt is forced out of the strike.

For doors 1 3/8" to 2 3/4" thick.

2300 Series PANIC EXIT DEVICES

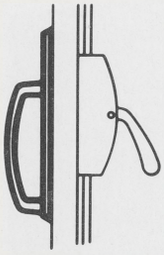
VERTICAL ROD



2340V FOR EXIT ONLY

Top and bottom latchbolts operated by cross bar inside. No outside trim or cylinders. Lower latchbolts held retracted when door is open, released when upper latch contacts strike. Latchbolts held retracted by dogging device.

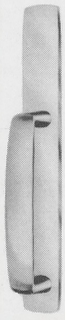
FEDERAL TYPE 821



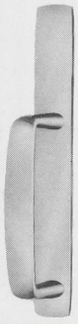
P2340V, FOR EXIT ONLY

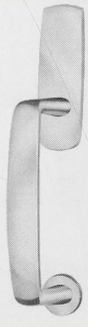
Dummy trim to match rim and vertical rod devices

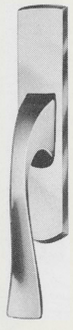
Top and bottom latchbolts operated by cross bar inside. Door by pull outside when latchbolt is held retracted by dogging device. Lower latchbolt held retracted when door is open, released when upper latch contacts strike. No outside cylinders.



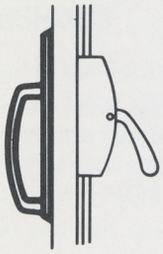








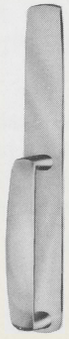
DESIGN	IMPERIAL	CROWN	ILEX	CASCADE	
Pull No.	2302	2302	2312	2312	2319
Size	1¾″ x 13½″	1⅞″ x 12″	1¾″ x 13½″	1⅞″ x 12″	1¾″ x 10¾″
Grip	Straight	Straight	⅝″ Offset	⅝″ Offset	Lever
Grip Centers	7¼″	7¼″	7¼″	7¼″	
Projection	2½″	2½″	2⅜″	2⅜″	2¼″
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28	10, 26D, 28	10, 26D, 28	10, 26D 28



H2340VDT FOR EXIT ONLY

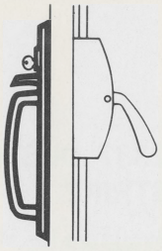
Dummy trim to match mortise lock devices.

H2380M, P2390M. Top and bottom latchbolts operated by cross bar inside. Door by pull outside when latchbolt is held retracted by dogging device. Lower latchbolt held retracted when door is open, released when upper latch contacts strike. No outside cylinders.



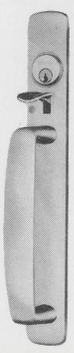


DESIGN	IMPERIAL	CROWN
Pull No.	2307	2307
Size	1⅞″ x 15 7/16″	1⅞″ x 15 11/16″
Grip Centers	7¼″	7¼″
Projection	2½″	2½″
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28



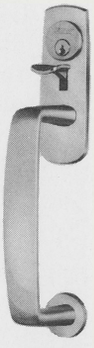
H2380V THUMBPIECE OPERATION

Top and bottom latchbolts operated by cross bar inside or thumbpiece outside except when thumbpiece is locked by key outside. Lower latchbolt held retracted when door is open, released when upper latch contacts strike. Latchbolts held retracted by dogging device.

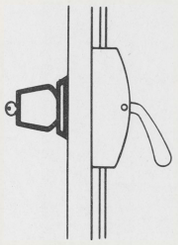








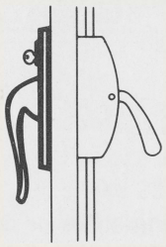
DESIGN	IMPERIAL	CROWN	ILEX	CASCADE
Pull No.	2303	2303	2313	2313
Size	1¾″ x 13½″	1⅞″ x 12″	1¾″ x 13½″	1⅞″ x 12″
Grip	Straight	Straight	⅝″ Offset	⅝″ Offset
Grip Centers	7¼″	7¼″	7¼″	7¼″
Projection	2½″	2½″	2⅜″	2⅜″
Cylinders	BL — 1⅛″	BL — 1⅛″	BL — 1⅛″	BL — 1⅛″
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28	10, 26D, 28	10, 26D, 28



K2380V KNOB OPERATION

Top and bottom latchbolts operated by cross bar inside or knob outside except when knob is locked by key outside. Lower latchbolt held retracted when door is open, released when upper latch contacts strike. Latchbolts held retracted by dogging device.

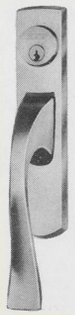
FEDERAL TYPE 821K (MOD)



L2380V LEVER PULL OPERATION

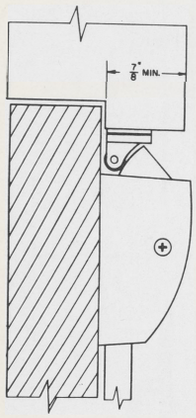
Top and bottom latchbolts operated by cross bar inside or lever pull outside except when lever is locked by key outside. Lower latchbolt held retracted when door is open, released when upper latch contacts strike. Latchbolts held retracted by dogging device.

Lever No.	2309
Escutcheon	1¾″ x 8⅛″
Lever	7¼″ Overall
Projection	2¼″
Cylinder	BL — 1⅛″
Available U.S. Finishes on Trim	10, 26D, 28



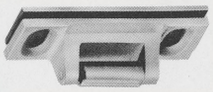
2300 Series PANIC EXIT DEVICES

STRIKES FOR VERTICAL ROD DEVICES

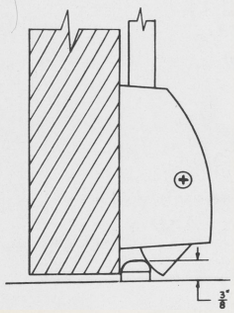


2333 UPPER STRIKE

Has roller action for easy soft latching. Special grooved ratchet plate with 5/16" adjustment allows for warped doors. Clearance between strike roller and latchbolt cannot exceed 1/16". For all vertical rod exit devices.

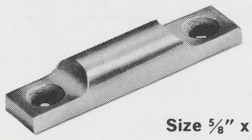


Size 7/8" x 2 7/8"

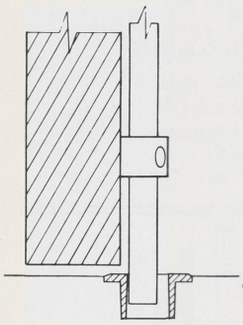


2336 STANDARD LOWER STRIKE

Furnished for all "V" devices with bottom latch case unless otherwise specified. Attaches directly to floor or sill.

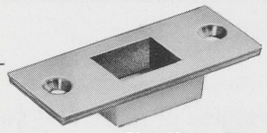


Size 5/8" x 2 9/16" x 3/8" High

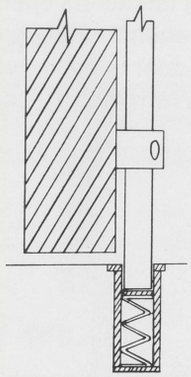


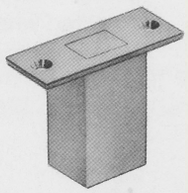
2330 LOWER STRIKE

Furnished with all "VB" deadbolt devices unless otherwise specified. Strike mortised into floor.



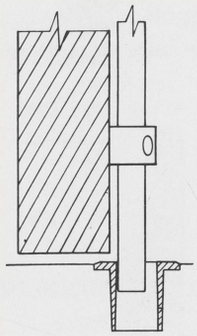
Size 1 1/16" x 2 5/8"

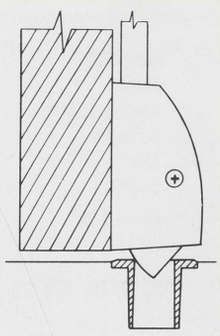




2337 DUSTPROOF STRIKE

Available for all "VB" deadbolt devices when specified. Strike mortised into floor.





2338 FLUSH LOWER STRIKE

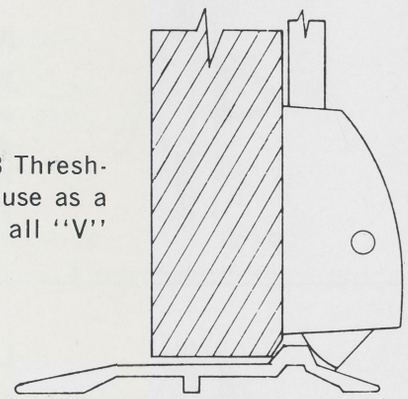
Available for all "V" and "VB" devices when specified. Installed directly in concrete or grout. No screws furnished.

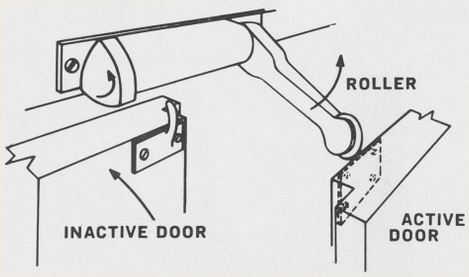


Size 1 1/16" x 2 5/8"

THRESHOLD

2325A or 2325B Threshold available for use as a lower strike for all "V" devices.





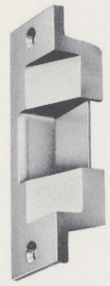
FEDERAL TYPE 836

2324 COORDINATOR

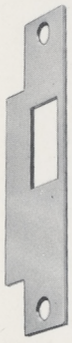
Used on pairs of doors with rabbeted meeting stiles or overlapping astragals to hold the active leaf in the open position until the inactive leaf is closed. The Coordinator is reversible and the height of the roller is adjustable after installation.

Pairs of doors with overlapping astragals or rabbeted meeting stiles cannot be equipped with vertical rod devices on both leaves. Use vertical rod device on inactive leaf; rim or mortise device on active leaf.

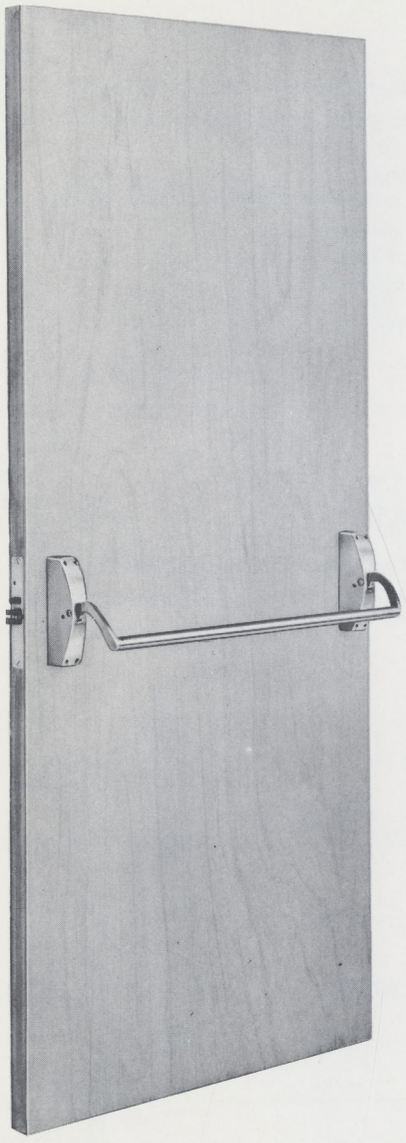
MORTISE LOCK EXIT DEVICES



2332
OPEN
BACK
STRIKE

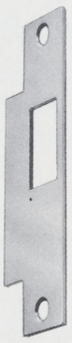


2331
STANDARD
STRIKE

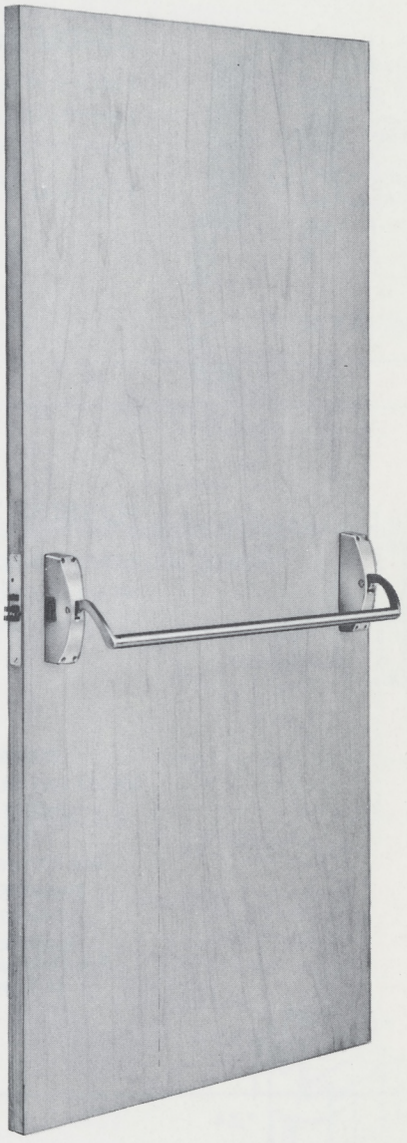


2300M SERIES

For use on single doors with strike 2331 or on the active leaf of a pair of doors with open back strike 2332.



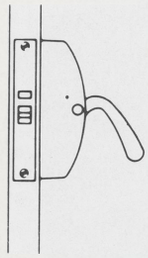
2331
STANDARD
STRIKE
ONLY



2300M ULF SERIES

Underwriters' listed fire exit device without dogging device. For use on single hollow metal or steel composite fire doors. Each "ULF" mortise lock exit device carries a serialized Underwriters' Laboratory Label. The dogging device feature has been eliminated, thus latchbolts cannot be held retracted. To specify add ULF to catalog number i.e. H2380M-ULF. For doors 1¾" to 2¼" thick.

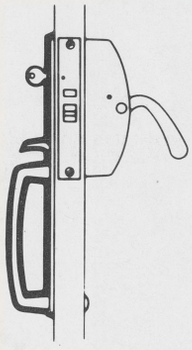
2300 Series PANIC EXIT DEVICES



2340M FOR EXIT ONLY

Latchbolt operated by cross bar inside, no outside trim or cylinder. Latchbolt held retracted by dogging device, deadlocking latchbolt. Mortise lock No. 2390.

FEDERAL TYPE 820 **NO OUTSIDE TRIM**



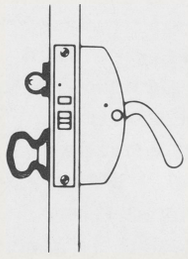
H2380M THUMB PIECE OPERATION

Latchbolt operated by cross bar inside or thumbpiece outside except when thumbpiece is locked by key outside latchbolt held retracted by dogging device deadlocking latchbolt.

DESIGN	IMPERIAL	CROWN
Mortise Lock No.	H2380	H2380
Pull No.	2305	2305
Size	1⅞" x 15$^{7}/_{16}$"	1⅞" x 15$^{11}/_{16}$"
Grip Centers	7¼"	7¼"
Projection	2½"	2½"
Cylinder	B	B
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28



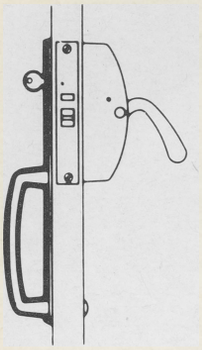




K2380M KNOB OPERATION

Latchbolt operated by cross bar inside or knob outside except when knob is locked by key outside. Latchbolt is held retracted by dogging device. Deadlocking latchbolt. Mortise lock No. 2380.

FEDERAL TYPE 820K

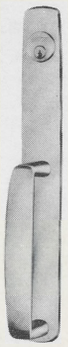


P2390M PULL OPERATION

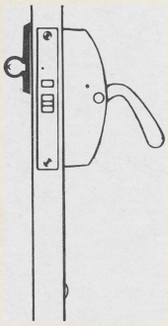
Latchbolt operated by cross bar inside or cylinder outside.
Latchbolt is held retracted by dogging device. Deadlocking latchbolt.

FEDERAL TYPE 820H

DESIGN	IMPERIAL	CROWN
Mortise Lock No.	2390	2390
Pull No.	2306	2306
Size	1⅞" x 15⅞₁₆"	1⅞" x 15¹¹⁄₁₆"
Grip Centers	7¼"	7¼"
Projection	2½"	2½"
Cylinder	B	B
Available U.S. Finishes on Trim	DJ, 3, 10, 26D, 28	DJ, 3, 10, 26D, 28







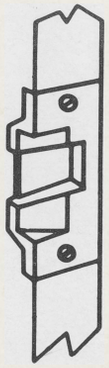
2394M CYLINDER OPERATION

Latchbolt operated by cross bar inside or cylinder outside. No outside pull.
Latchbolt is held retracted by dogging device Cylinder type B.
Mortise lock No. 2390.

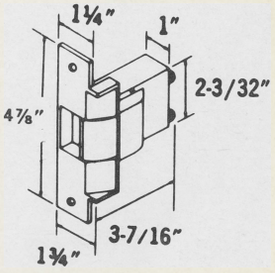
STRIKES FOR MORTISE LOCK DEVICES



Size 4⅞" x 1¼"



Size 5" x 1⅞"



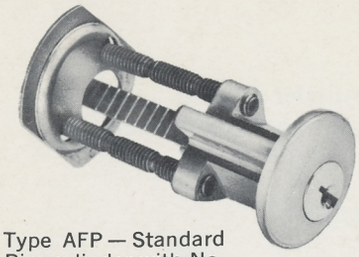
2331 Standard Mortise Device strikes furnished for single doors. 1⅛" strike lip to center standard strike lips 1¾", 2" available when specified. Wrought Box 1359 available at extra cost.

2332 Open Back Strike furnished for pairs of doors when Mortise lock exit device is used on active leaf. Door thickness must be specified.

1372 Electric Latch release for use with Mortise exit devices. Available when specified. US4, US26D finish. Face: Cast Brass 4 ⅞ x 1¼. 8-16 volts AC, 3-6 volts DC.

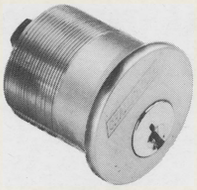
2300 Series PANIC EXIT DEVICES

Cylinders

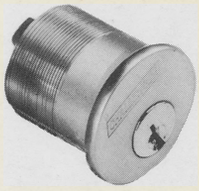


Type AFP — Standard Rim cylinder with No. 2300-2003 narrow back plate. Used with all rim devices as listed.

MISCELLANEOUS



Type B — Standard Mortise cylinder. Used with all Mortise lock devices. Lengths 1⅛, 1¼, 1⅜, 1½, 1¾, 2, 2½ inches.



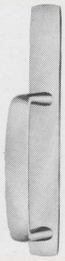
Type BL — Lazy Cam. Mortise cylinder. Used with all vertical rod devices and L 2380R. Length 1⅛".

DOOR PULLS

To match exit devices, used for dummy trim, vestibules, lobbies, toilet room doors, etc. Grip Centers 7¼". Offset grips are reversible. All pulls fasten from the back with thru screws.





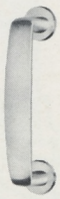


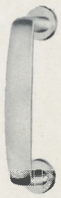


DESIGN	**IMPERIAL**	**IMPERIAL**	**ILEX**	**CROWN**
Pull No.	2302	2307	2312	2302
Size	1¾" x 13½"	1⅞" x 15⅞"	1¾" x 13½"	1¾" x 12"
Grip	Straight	Straight	Offset	Straight
Projection	2½"	2½"	2⅜"	2½"
U.S. Finishes	3, 10, 26D, 28	3, 10, 26D, 28	10, 26D, 28	3, 10, 26D, 28











CROWN	**CASCADE**	**CROWN**	**CASCADE**	
2307	2312	2317	2317	2319
1⅞" x 15$^{11}/_{16}$"	1⅞" x 12"	1⅝" x 8⅞"	1⅝" x 8⅞"	1¾" x 10¾"
Straight	Offset	Straight	Offset	
2½"	2⅜"	2½"	2⅜"	2¼"
3, 10, 26D, 28	10, 26D, 28	3, 10, 26D, 28	10, 26D, 28	10, 26D, 28

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIV

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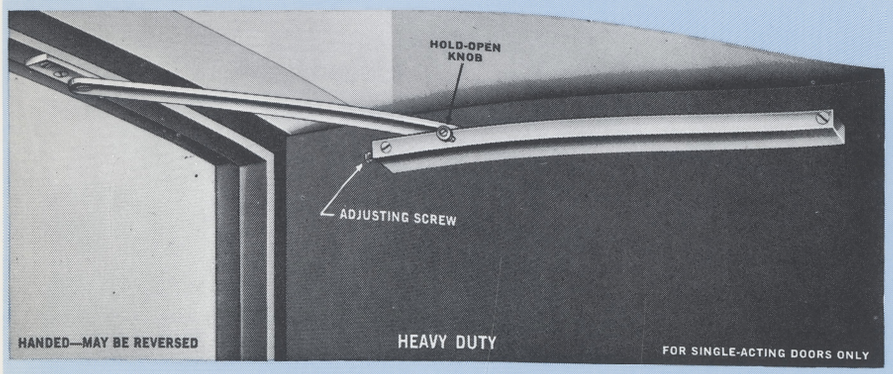
2600 SERIES

OVERHEAD DOOR HOLDERS

EATON YALE & TOWNE INC.

CHALLENGER®

LOCK AND HARDWARE DIV.



2601 SURFACE TYPE

FEDERAL SPECIFICATION FF-H-00111b
Type 1161, 1161A – 2601 Series
No Type – 2602 Series

OVERHEAD DOOR HOLDER with SHOCK ABSORBER

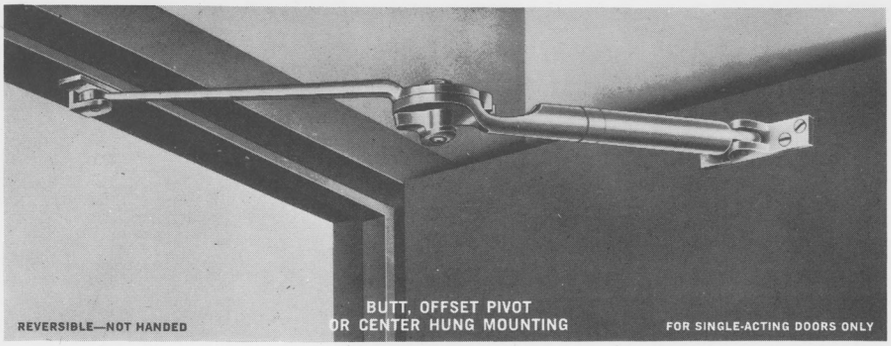
For Single-Acting Exterior or Interior Doors

2601–BUTT OR OFFSET PIVOT MOUNTING
2602–CENTER HUNG MOUNTING

For 1 3/4", 2" and 2 1/4" Doors. Furnished to Specified Hand. Can be reversed. Hold-open tension can be adjusted or may be disengaged if desired.

MATERIAL:
Channel – Extruded bronze–(1¼" wide, ¾" high).
Arm–Bronze–(1" wide, ¼" thick).
Jamb bracket–Bronze.

2600 Series OVERHEAD DOOR HOLDERS



2610 SURFACE TYPE

FEDERAL SPECIFICATIONS FF-H-00111b
Type 1162, Sizes A, B and C

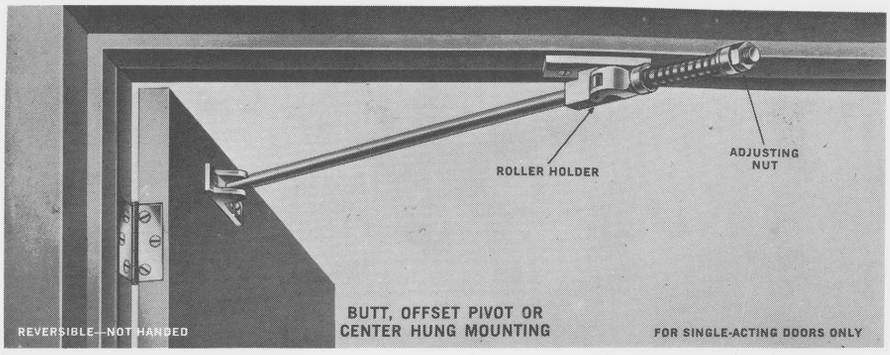
OVERHEAD DOOR HOLDER with SHOCK ABSORBER

For Single-Acting Exterior or Interior Doors

2610 SERIES WITH HOLD-OPEN

For 1 1/4" to 3 1/8" Doors. Mounted with Butt Hinges, Offset or Center Pivots. The door can be held open by setting the control handle or released as desired.

MATERIAL
Jamb arm, door arm, jamb bracket, door bracket and handle – Cast bronze.
Spring housing–Bronze.



2621 SURFACE TYPE

FEDERAL SPECIFICATIONS FF-H-00111b

No type – 2621 Series
No type – F2621 Series

OVERHEAD DOOR HOLDER with SHOCK ABSORBER

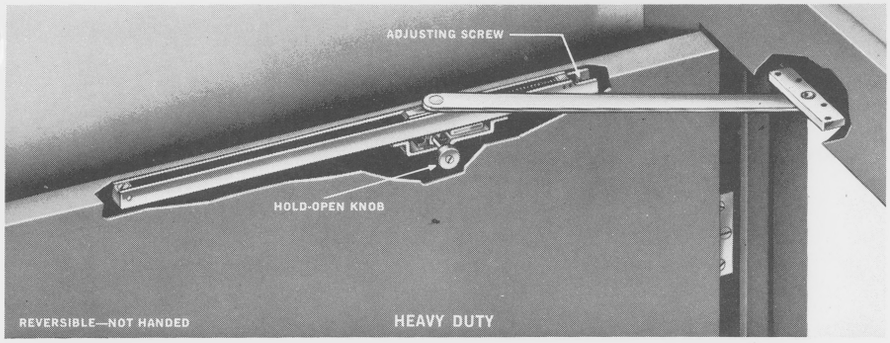
For Single-Acting Exterior or Interior Doors

2621 SERIES WITH HOLD-OPEN
F2621 SERIES WITH HOLD-OPEN (Fusible Washer)

For 1 3/8", 1 3/4", 2" and 2 1/4" Doors. Can be mounted with Butt Hinges, Offset or Center Pivots. The hold-open tension can be adjusted or disengaged if desired.

MATERIAL:
Arm coupling, roller holder, jamb and door brackets – Cast bronze. Arm and roller – Steel.

OVERHEAD DOOR HOLDERS **2600 Series**



2640 CONCEALED TYPE

FEDERAL SPECIFICATIONS: FF-H-00111b

No type	– 2640 Series
Type 1160, 1160A	– 2650 Series
No type	– 2651 Series
No type	– 2652 Series
No type	– 2653 Series
Type 1160D	– 2654 Series
No type	– 2655 Series

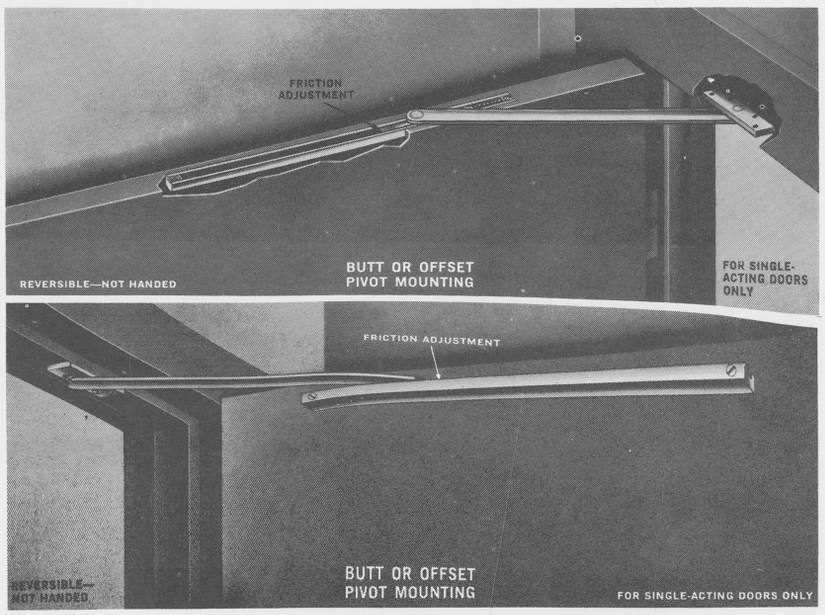
OVERHEAD DOOR HOLDERS with SHOCK ABSORBER

For Single and Double-Acting Exterior or Interior Doors

2640 SERIES 1 3/8" to 1 3/4" Doors, 1" Channel-Arm
2650 SERIES 1 3/4" to 2 1/4" Doors, 1 1/4" Channel-Arm

Door is manually opened to specified position and will hold until moved. Hold-open tension can be adjusted. Also available without Hold-open.

MATERIAL: Channel–Extruded bronze. Arm and jamb bracket – Bronze.



2670 CONCEALED TYPE

FEDERAL SPECIFICATIONS FF-H-00111b

Type 1164	– 2670 Series
Type 1166A	– 2671 Series
Type 1166	– 2672 Series

2673 SURFACE TYPE

FEDERAL SPECIFICATIONS FF-H-00111b

Type 1165	– 2673 Series
No type	– 2674 Series
No type	– 2675 Series

OVERHEAD DOOR HOLDERS with SHOCK ABSORBER

For Single-Acting Interior Doors

2670 CONCEALED – 2673 SURFACE FRICTION TYPE

With Friction type door holder, door cannot swing idly or slam. Door is manually opened to selected position and will hold until moved. The amount of friction can be adjusted.

2671, 2672 CONCEALED–2674, 2675 SURFACE NON-FRICTION TYPES

Door is manually opened to specified position and will hold until moved. The Hold-open tension can be adjusted. Also available without Hold-open.

MATERIAL:
Channel–Extruded bronze (11/16" wide, 5/8" deep). Arm–Bronze 11/16" wide, 3/16" thick).

2600 Series OVERHEAD DOOR HOLDERS

general information for overhead door holders

HOW TO ORDER

The following data is necessary for ordering or for complete template information.

1. Quantity
2. Catalog Number
3. Finish
4. Hand 2601 & 2602 Only
5. Door Thickness
6. Door Material
7. Door Width
8. Frame Material
9. Width Butt Hinges or Offset of Pivots
10. Degree of Opening

EXAMPLE

Catalog No.	Finish	Detail
1–2601–32	10	R.H. for 1 3/4'' wood door 36'' wide B/WS H.M. Frame A/TMS 4 1/2'' width butt hinges 90° opening.

FASTENINGS

B/WS – (Body with wood screws)
B/TMS – (Body with machine screws)
B/TBGN – (Body with thru bolts and gromet nuts)
B/SBN – (Body with sex bolts and nuts)
A/WS – (Arm with wood screws)
A/TMS – (Arm with machine screws)

TEMPLATES

An installation template is packed with each Challenger overhead door holder for standard 90° opening. 80° to 110° openings in 5° increments are available to order. However, any opening other than the standard 90° opening requires a special template, which will be supplied when specified.

FINISHES:

See price list for finishes available.

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIV.

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EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIV.

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

COMPARISON CHART BY GENERAL SERIES CLASSIFICATION

STANDARD DUTY CYLINDRICAL LOCKS

Challenger	Best	Corbin	Lockwood	Russwin	Sargent	Schlage	Yale	Govt. Series
800	5	5600	"S"	3300	6	A	5300	160

HEAVY DUTY CYLINDRICAL LOCKS

900	7	400	"H"	400	8	D	5400	161

MORTISE LOCKS

200	NA	7000	T5000	1000	6700	NA	4000	85
300	NA	7500	B5100	A2000	7700	NA	8000	86

UNIT TYPE LOCKS

1600	NA	300	NA	500	NA	NA	6200	90/98 Mod.

DOOR CLOSERS

Challenger	Corbin	LCN	Lockwood	Norton	Russwin	Sargent	Yale	Govt. Series
2130	NA	NA	NA	800	NA	NA	550	3010
2140	500S	4030	NA	7000	500S	50	40	3230 Mod.
2150	NA	NA	NA	1600	NA	NA	50	3009
2160	500M	330	NA	900	500M	60	60	3230
2170	60	NA	Universal	NA	B/E	40V	70	3004

PANIC EXIT DEVICES

Challenger	Corbin	Lockwood	Russwin	Sargent	Sargent & Greenleaf	Von Duprin	Yale	Govt. Series
				Rim Type Devices				
2300	3700	90	730	9800	5300	88	10A	810
				Vertical Rod Type Devices				
2300	3100	70	790	9700	5400	8820	10R	810
				Mortise Lock Type Devices				
2300	3100	80	790	9900	5500	8850	30	820

OVERHEAD DOOR HOLDERS

Due to the methods of assigning catalogue numbers to overhead door holders it is impossible to cross reference these items in a general series classification. However: Challenger Lock & Hardware Division markets products similar to those marketed by, Corbin, Russwin, Glenn Johnson, Sargent & Greenleaf, and Yale.

CHALLENGER®

COMPARATIVE LIST

CHALLENGER 200 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a TYPE 85 AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
85A	263B
85B	255B
85C	282B
85D	260SB
85DW	290SB
85E	260DB
85EW	290DB

CHALLENGER 300 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a TYPE 86 AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
86A	363B
86B	355B
86C	382B
86D	360SB
86DW	390SB
86E	360DB
86EW	390DB
86F	N/C
86FW	N/C
86G	371DB
86H	372B
86J	380DB
86L	310
86M	331
86N	300S
86P	393B
86S	394B
86T	392B

CHALLENGER 400 SERIES MORTISE LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a, TYPE 87, AS FOLLOWS:

TYPE	CHALLENGER CATALOG NO.
87E	460DB 3/4
87G	471DB 3/4
87N	400D 3/4

INDEXED TO CORBIN NO. 7000 SERIES	CHALLENGER 200 SERIES
7000	231
7010	200S
7011	N/C use 394B
7012	N/C use 392B
7013	N/C use 393B
7017	N/C
7020	210
7021	254B
7022	282B
7023	255B
7023 1/4	N/C
7025	N/C
7027	N/C use 372B
7031	260SB
7033	N/C
7034	271SB
7035	280SB
7037	290SB
7042	N/C
7043	263B
7047	N/C
7048	N/C use H363B
7051	260DB
7054	271DB
7055	280DB
7057	290DB
7072	N/C
7073	N/C
7088	N/C use H382B

NOTES:

7200 Series same as 7000 Series except 5/8" throw anti friction latchbolt.

7400 Series same as 7000 Series except 1" throw deadbolt.

7600 Series same as 7200 Series except 1" throw deadbolt.

N/C = No Comparison

INDEXED TO CORBIN NO. 7500 SERIES	CHALLENGER 300 SERIES
7311	394B
7312	392B
7313	393B
7317	395B
7500	331
7510	300S
7520	310
7521	354B
7521L	354BRL
7522	382B
7522L	382BRL
7523	355B
7523L	355BRL
7523 1/4	N/C
7525	N/C
7527	372B
7529	N/C
7531	360SB
7533	373B
7534	371SB
7535	380SB
7537	390SB
7539	N/C
7542	N/C
7543	363B
7547	N/C
7548	H363B
7551	360DB
7554	371DB
7555	380DB
7557	390DB
7565	N/C
7588	H382B

NOTES:

7900 Series same as 7500 Series except 1" throw deadbolt.

8300-8500 Series same as 7500 Series except with large mogul cylinder.

6600 Series extra heavy winged latchbolt Series.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO LOCKWOOD NO. T5000 SERIES	CHALLENGER 200 SERIES	INDEXED TO LOCKWOOD NO. B5100 SERIES	CHALLENGER 300 SERIES
T5000	263B	B5100	363B
T5000 1/4	290SB	B5100 1/4	390SB
T5000 1/2	260SB	B5100 1/2	360SB
T5000 5/8	290DB	B5100 5/8	390DB
T5000 3/4	260DB	B5100 3/4	360DB
T5017	N/C use 394B	B5117	394B
T5017 1/2	N/C use 393B	B5117 1/2	393B
T5017 3/4	N/C use 392B	B5117 3/4	392B
T5020	282B	B5120	382B
		B5130	355B
		B5135	354B
T5030	255B	B5138	331
T5035	254B	B5149	310
T5038	231	B5155 1/2	371SB
5044	N/C	B5155 3/4	371DB
5046	N/C	B5156 1/2	380SB
5048	N/C	B5156 3/4	380DB
T5049	210	B5160	N/C
T5055 1/2	271SB	5161	N/C
T5055 3/4	271DB	5162	N/C
T5056 1/2	280SB	B5170	372B
T5056 3/4	280DB	B5184	300S
T5070	N/C use 372B		
5080	N/C		
5082	N/C		
T5084	200S		
5085	N/C		
5086	N/C		
5090	N/C		

NOTES:

5200 Series same as T5000 Series except 3/4" throw deadbolt.

G5100 Series same as B5100 Series except 3/4" throw latchbolts.

F5000 Series same as T5000 Series except anti friction latchbolts.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO CORBIN NO. 7000 SERIES	CHALLENGER 200 SERIES
7000	231
7010	200S
7011	N/C use 394B
7012	N/C use 392B
7013	N/C use 393B
7017	N/C
7020	210
7021	254B
7022	282B
7023	255B
7023 1/4	N/C
7025	N/C
7027	N/C use 372B
7031	260SB
7033	N/C
7034	271SB
7035	280SB
7037	290SB
7042	N/C
7043	263B
7047	N/C
7048	N/C use H363B
7051	260DB
7054	271DB
7055	280DB
7057	290DB
7072	N/C
7073	N/C
7088	N/C use H382B

NOTES:

7200 Series same as 7000 Series except 5/8" throw anti friction latchbolt.

7400 Series same as 7000 Series except 1" throw deadbolt.

7600 Series same as 7200 Series except 1" throw deadbolt.

N/C = No Comparison

INDEXED TO CORBIN NO. 7500 SERIES	CHALLENGER 300 SERIES
7311	394B
7312	392B
7313	393B
7317	395B
7500	331
7510	300S
7520	310
7521	354B
7521L	354BRL
7522	382B
7522L	382BRL
7523	355B
7523L	355BRL
7523 1/4	N/C
7525	N/C
7527	372B
7529	N/C
7531	360SB
7533	373B
7534	371SB
7535	380SB
7537	390SB
7539	N/C
7542	N/C
7543	363B
7547	N/C
7548	H363B
7551	360DB
7554	371DB
7555	380DB
7557	390DB
7565	N/C
7588	H382B

NOTES:

7900 Series same as 7500 Series except 1" throw deadbolt.

8300-8500 Series same as 7500 Series except with large mogul cylinder.

6600 Series extra heavy winged latchbolt Series.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO LOCKWOOD NO. T5000 SERIES	CHALLENGER 200 SERIES
T5000	263B
T5000 1/4	290SB
T5000 1/2	260SB
T5000 5/8	290DB
T5000 3/4	260DB
T5017	N/C use 394B
T5017 1/2	N/C use 393B
T5017 3/4	N/C use 392B
T5020	282B
T5030	255B
T5035	254B
T5038	231
5044	N/C
5046	N/C
5048	N/C
T5049	210
T5055 1/2	271SB
T5055 3/4	271DB
T5056 1/2	280SB
T5056 3/4	280DB
T5070	N/C use 372B
5080	N/C
5082	N/C
T5084	200S
5085	N/C
5086	N/C
5090	N/C

INDEXED TO LOCKWOOD NO. B5100 SERIES	CHALLENGER 300 SERIES
B5100	363B
B5100 1/4	390SB
B5100 1/2	360SB
B5100 5/8	390DB
B5100 3/4	360DB
B5117	394B
B5117 1/2	393B
B5117 3/4	392B
B5120	382B
B5130	355B
B5135	354B
B5138	331
B5149	310
B5155 1/2	371SB
B5155 3/4	371DB
B5156 1/2	380SB
B5156 3/4	380DB
B5160	N/C
5161	N/C
5162	N/C
B5170	372B
B5184	300S

NOTES:

5200 Series same as T5000 Series except 3/4" throw deadbolt.

G5100 Series same as B5100 Series except 3/4" throw latchbolts.

F5000 Series same as T5000 Series except anti friction latchbolts.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO RUSSWIN NO. 1000 SERIES	CHALLENGER 200 SERIES
1007	N/C use 393B
1007 1/4	N/C use 394B
1007 1/2	N/C use 392B
1007 3/4	N/C
1013	N/C use H363B
1018	N/C
1018 1/2	N/C
1023	N/C
1024	255B
1024 1/4	254B
1024 1/2	282B
1024 3/4	N/C
1025	200S
1028	N/C
1033 HM	N/C use 372B
1036	290SB
1037	N/C use 373B
1038	260SB
1039	210
1040	231
1048	263B
1048 1/2	N/C
1049	N/C
1056	260DB
1058 1/2	271DB
1058 5/8	280DB
1059	290DB
1068 1/2	271SB
1068 5/8	280SB
1098	N/C
1098 1/2	N/C use H382B

INDEXED TO RUSSWIN NO. 2000 SERIES	CHALLENGER 300 SERIES
2007	393B
2007 1/4	394B
2007 1/2	392B
2007 3/4	N/C
A2013	H363B
A2023	N/C
A2024	355B
A2024 1/4	354B
A2024 1/2	382B
A2024 3/4	N/C
A2025	300S
A2033 HM	372B
A2034 HM	N/C
A2034 3/4 HM	N/C
A2036	390SB
A2037	373B
A2038	360SB
A2039	310
A2040	331
A2040 1/2	381B
A2040 7/8	351B
A2048	363B
A2048 1/2	N/C
A2049	N/C
A2056	360DB
A2058 1/2	371DB
A2058 5/8	380DB
A2059	390DB
A2061	N/C
A2068 1/2	371SB
A2068 5/8	380SB
A2098	N/C
A2098 1/2	H382B

NOTES:

Prefix A anti friction latchbolt.

1100 Series same as 1000 Series except 1" throw deadbolts.

2100 Series same as 2000 Series except 1" throw deadbolts.

2300 Series same as 2000 Series except 3/4" throw deadbolts.

3000 Series same as 2000 Series except 1 1/2" master ring cylinder.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO SARGENT NO. 6700 SERIES	CHALLENGER 200 SERIES
6705	260DB
6715	200S
6716	271DB
6720	N/C use 394B
6721	N/C use 393B
6722	N/C use 392B
6723	N/C use H382B
6725	255B
6726	282B
6728	N/C
6737	280DB
6745	263B
6746	260SB
6750	N/C use 372B
6761	N/C use H363B
6765	210
6775	231

INDEXED TO SARGENT NO. 7700 SERIES	CHALLENGER 300 SERIES
7703	N/C
7704	390DB
7705	360DB
7714	390SB
7715	300S
7716	371DB
7720	394B
7721	393B
7722	392B
7725	355B
7726	382B
7737	380DB
7745	363B
7746	360SB
7750	372B
7752	373B
7765	310
7775	331
7788	N/C
7792	N/C

NOTES:

7800 Series same as 7700 Series except 3/4" throw latchbolts and deadbolts.

Suffix R rabbeted front and strike.

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

INDEXED TO YALE NO. 4000 SERIES	CHALLENGER 200 SERIES	INDEXED TO YALE NO. 8000 SERIES	CHALLENGER 300 SERIES
4000	200S	8000	300S
4032	N/C use 400D 3/4	8032	400D 3/4
4308	N/C use 394B	8308	394B
4308 1/4	N/C use 392B	8308 1/4	392B
4309	N/C use 393B	8309	393B
4426 1/4	N/C use H371DB	8426 1/4	H371DB
4428	N/C use H363B	8428	H363B
4432 1/4	N/C use H382B	8432 1/4	H382B
4472 1/4	N/C	8472 1/4	N/C
4482	N/C	8482	N/C
4525	231	8525	331
4526	N/C use 351B	8526	351B
4526 1/4	N/C use 381B	8526 1/4	381B
4535	210	8535	310
4646	280DB	8642	372B
4646 1/4	271DB	8643	*373B
4648	290DB	8646	380DB
4656	260DB	8646 1/4	371DB
4660	255B	8648	390DB
4660 1/4	282B	8656	360DB
4661	254B	8660	355B
4750	263B	8660 RL	355B RL
4790	260SB	8660 1/4	382B
4791	290SB	8660 1/4 RL	382B RL
4792	280SB	8661	354B
4792 1/4	271SB	8737	480DB 3/4
		8737 1/4	471DB 3/4
		8738	460DB 3/4
		8750	363B
		8790	360SB
		8791	390SB
		8792	380SB
		8792 1/4	371SB

*With Indicator

N/C = No Comparison

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

CHALLENGER®

COMPARATIVE LIST

FF-H-106a, TYPE 160, AS FOLLOWS:

A	G860DC
B	G850DC
B (MOD)	G855DC
C	NOT AVAILABLE
D	G890DC
E	G877DC
F	NOT AVAILABLE
G	NOT AVAILABLE
H	G872DC
L	G810S
M	G812D
N	G800S
NX	G840D
P	G820D
Q	G830D
R	G880DC
S	NOT AVAILABLE
W	NOT AVAILABLE

LOCKWOOD	CHALLENGER
S 110	800S
S 112DL	840D
S 115	803S
S 120	810S
S 123DL	830D
S 124DL	820D
S 130DL	860DC
S 131DL	880DC
S 134DL	890DC
S 137DL	850DC
S 138DL	870DC
S 140DL	872DC
S 141DL	877DC
S 146DL	883DC
S 10	X800

CORBIN	CHALLENGER
5600	812D
5610	800S
5610 FC1*	803S
5610 FT1	803S
5615	840D
5620	810S
5620 FC1*	N/C
5621 FC1*	833D
5629	872DC
5631	860SC
5641	820D
5611	804S
5644	830D
5651	860DC
5655	880DC
5655 FC1*	883DC
5655 FT1	883DC
5657	890DC
5661	850DC
5662	870DC
5663	877DC
5674	898DC
5675	894DC
24DT	X800

* FLUSH CUP TURN

FEDERAL TYPE "160" SERIES LOCKSETS CON'T.

RUSSWIN	CHALLENGER
3310	800S
3310 CS1	803S
3314	840D
3320	810S
3322	820D
3326	830D
3328	812D
3330	860SC
3333	872DC
3335	877DC
3340	860DC
3340 5/8	880DC
3340 5/8 CS1	883DC
3342	870DC
3346	850DC
3352	890DC

SARGENT	CHALLENGER
6G04	890DC
6G05	860DC
6U05	860SC
6G08	867DC
6U12	803S
6G13	840D
6U15	800S
6G15-3	804D
6G24	850DC
6G25	870DC
6G30	881DC
6G37	880DC
6G38	883DC
6G38-2	NO COMPARISON
6G39	884DC
6G44	877DC
6G50	872DC
6G63	830D
6G64	820D
6U65	810S
6U65-2	810ST
6G75	812D
6G75-2	NO COMPARISON
6U93	X800
6U94	PR X800

SCHLAGE	CHALLENGER
A10S	800S
A12D	840D
A20S	803S
A25D	804D
A30D	820D
A31D	830D
A40S	810S
A42D	812D
A43D	NO COMPARISON
A50PD	850DC
A51PD	860DC
A52PD	870DC
A55PD	877DC
A67PD	NO COMPARISON
A70PD	880DC
A71PD	883DC
A79PD	884DC
A80PD	890DC
A81PD	893DC
A84PD	872DC
A85PD	872DC
A170	X800
A172	PR X800
A175	1/2 X800WT
A176	X800WT

YALE	CHALLENGER
5301	800S
5302	810S
5303	820D
5304	850DC
5305	890DC
5306	877DC
5307	860DC
5308	880DC
5309	840D
5310	830D
5311	812D
5312	870DC
5313	803S
5314	893DC
5315	883DC
5316	898DC
5320	872DC
5322	855DC
5325	810ST
5328	804D
5331	833D
5332	872DC
5335	NO COMPARISON

EATON YALE & TOWNE INC
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE. ANAHEIM. CALIFORNIA 92803

CHALLENGER®

COMPARATIVE LIST

FEDERAL TYPE "161" SERIES LOCKSETS

CHALLENGER 900 SERIES CYLINDRICAL LOCKSETS MEET THE REQUIREMENTS OF FF-H-106a, TYPE 161, AS FOLLOWS:

TRIM TYPE 1 . . .	MATADOR	.080
TRIM TYPE 2 . . .	REGENT	.080
TRIM TYPE 3 . . .	MATADOR	.050
TRIM TYPE 4 . . .	REGENT	.050

GOVT.	CHALLENGER
A	960DP
B	950DP
B (MOD)	N/C
C	971DP
D	990DP
E	977DP
F	982DP OR 985DP
G	982DP
H	972DP
L	910S
M	931D
N	900S
NX	940D
P	920D
Q	930D
R	980DP
S	981DP
T	955DP
U	975DP
W	991DP
X	982DP HB

ARROW	CHALLENGER
1001	960DP
1001CB	984DP
1001CS	983DP
1001DCF	971DP
1001DCG	982DP
1001DCK	985DP
1001DCS	981DP
1001DCW	991DP
1001F	990DP
1001FCB	994DP
1001H	972DP
1001P	950DP
1001PT	970DP
1001PTX	977DP
1001Q	930D
1001S	980DP
1001T	955DP
1001U	975DP
1006	900S
1006CB	904D
1006CS	903S
1006HB	S-9-1
1006NX	940D
1007TM	931D
1009	920D
1020	PAIR X900WT
1025	X900

FEDERAL TYPE "161" SERIES LOCKSETS CON'T.

CORBIN	CHALLENGER
400	931D
402	895DP
404	981DP
405	975DP
410	900S
415	940D
419	903S
420	910S
420Y	910ST
427	972DP
428	NO COMPARISON
429	972DP
432	991DP
441	920D
444	930D
451	960DP
454	971DP
455	980DP
455 1/4	980DPHB
455 3/4	988DP
456	987DP
457	990DP
459	993DP
461	950DP
462	970DP
463	977DP
465	955DP
469	983DP
487	984DP
488	982DP
24DT	X900
24	X900WT
34	X900WT

FALCON	CHALLENGER
X101	900S
X141DL	940D
X151	903S
X161DL	904D
X201DL	920D
X211DL	931D
X221DL	930D
X241DL	933D
X301	910S
X311DL	983DP
X321DL	993DP
X331DL	984DP
X341DL	994DP
X351DL	971DPHB
X361DL	998DP
X371DL	982DP
X381DL	971DP
X391DL	981DP
X401DL	985DP
X411DL	991DP
X421DL	NO EQUIV.
X431DL	NO EQUIV.
X441DL	NO EQUIV.
X451DL	972DP
X461DL	NO EQUIV.
X481DL	USE 972DP
X491DL	960DPHB
X501DL	950DP
X521DL	960DP
X531DL	977DP
X541DL	975DP
X551DL	970DP
X561DL	980DP
X571DL	955DP
X581DL	990DP
X591DL	980DPHB
X12	X900
X13	X900WT
X18	PAIR X900
X19	PAIR X900WT

EATON YALE & TOWNE INC
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE. ANAHEIM. CALIFORNIA 92803

FEDERAL TYPE "161" SERIES LOCKSETS CON'T.

SARGENT	CHALLENGER
8 G 04	990DP
8 G 05	960DP
8 G 08	967DP
8 U 12	903S
8 G 13	940D
8 U 15	900S
8 G 16	971DP
8 G 17	991DP
8 G 24	950DP
8 G 25	970DP
8 G 26	982DP
8 G 30	981DP
8 G 37	980DP
8 G 38	983DP
8 G 38-2	NO COMPARISON
8 G 44	977DP
8 G 50	972DP
8 G 52	972DP
8 G 54	955DP
8 G 63	930D
8 G 64	920D
8 U 65	910S
8 U 65-2	910ST
8 G 75	931D
8 G 75-2	NO COMPARISON
8 G 87	980PPHB
8 U 88	S-9-01
8 U 92	N/C
8 U 93	X900
8 U 93-2	N/C
8 U 93-3	X900
8 U 94	PR X900
8 U 94-2	N/C

SCHLAGE	CHALLENGER
D 10S	900S
D 12D	940D
D 20S	903S
D 25D	904D
D 30D	920D
D 31D	930D
D 40S	910S
D 41D	931D
D 50PD	950DP
D 51PD	960DP
D 52PD	970DP
D 55PD	977DP
D 57PD	NO COMPARISON
D 60PD	971DP
D 62PD	985DP
D 66PD	982DP
D 70PD	980DP
D 70PDHB	980DPHB
D 71PD	983DP
D 72PD	981DP
D 73PD	955DP
D 74PD	975DP
D 75PD	NO COMPARISON
D 77PD	NO COMPARISON
D 80PD	990DP
D 81PD	993DP
D 82PD	991DP
D 84PD	972DP
D 85PD	972DP
D 86PD	NO COMPARISON
D 87PD	998DP
D 170	X900
D 172	PR X900
D 175	1/2 X900WT
D 176	X900WT

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

FEDERAL TYPE "161" SERIES LOCKSETS CON'T.

LOCKWOOD	CHALLENGER
H 110	900S
H 112DL	940D
H 115	903S
H 120	910S
H 122DL	931D
H 123DL	930D
H 124DL	920D
H 130DL	960DP
H 131DL	980DP
H 132DL	982DP
H 133DL	985DP
H 134DL	990DP
H 135DL	971DP
H 136DL	955DP
H 137DL	950DP
H 138DL	970DP
H 139DL	980DPHB
H 140DL	972DP
H 141DL	977DP
H 142DL	981DP
H 143DL	991DP
H 144DL	975DP
H 148DL	NO COMPARISON
H 160	900S 3/4
H 180DL	960DP 3/4
H 181DL	980DP 3/4
H 184DL	990DP 3/4
H 185DL	971DP 3/4
H 10	X900
203 x 213	X900W

RUSSWIN	CHALLENGER
410	900S
410C	903S
414	940D
416	904D
420	910S
ER421	910ST
422	920D
426	930D
428	931D
433HM	972DP
433EM	972DP
434EM	NO COMPARISON
435	977DP
440	960DP
440 5/8	980DP
H440 5/8	980DPHB
440 5/8C	983DP
442	970DP
446	950DP
446 1/2	971DP
447	987DP
448 1/2	982DP
450 1/2	985DP
451 5/8	984DP
452	990DP
452C	993DP
452 1/2	991DP
453	955DP
454	988DP
456	975DP
456 1/2	981DP
W400	X900WT
1/2 D400	X900

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

FEDERAL TYPE "161" SERIES LOCKSETS CON'T.

YALE	CHALLENGER
5401	900S
5402	910S
5403	920D
5404	950DP
5405	990DP
5406	977DP
5407	960DP
5408	980DP
5409	940D
5410	930D
5411	931D
5412	970DP
5413	903S
5415	983DP
5417	971DP
5418	985DP
5419	982DP
5420	972DP
5421	981DP
5422	955DP
5423	975DP
5424	980DPHB
5425	910ST
5428	904D
5429	982DPHB
5430	991DP
5434	NO COMPARISON
455	X900
456	1/2 X900WT
457	X900WT

OVERHEAD DOOR HOLDERS **2600 Series**

CHALLENGER®

COMPARATIVE LIST

P. & F. CORBIN SERIES	CHALLENGER SERIES
765	2675
766	N.C.
775	2674
776	N.C.
800	2613
801	2610–25
802	2610–30
803	2610–36
810	2621
820	2670
822	N.C.
823	N.C.
832	2610–30
840	2672
842	N.C.
843	N.C.
850	2671
852	N.C.
853	N.C.
865	2673
866	N.C.
870	2650
872	2652
873	2654
1880	2601
1882	2602
1885	2601 – Less H.O.
1887	2602 – Less H.O.
2614	1440W
2872	N.C.
2873	N.C.
*3801	2610–25
*3802	2610–30
*3803	2610–36
*3832	2610–30

*Equipped W/Iron or Steel Arms or Track.

GLYNN – JOHNSON All No.'s prefixed by GJ	CHALLENGER SERIES
01	2610 – 25
02	2610 – 30
03	2610 – 36
*021	2610 – 30
*022	2610 – 30
*031	2610 – 36
*032	2610 – 36
70A to 78	2621
70A-F to 78F	F2621
79	N.C.
80 to 85	N.C.
90, 90A	2601
90B	2602
110, 120	2650
130	2652
140	N.C.
200	2654
240	N.C.
310 to 315	2671
320 to 325	2670
330 to 335	2672
360 to 365	2674
370 to 375	2673
380 to 385	2675
*501 to 504 (A) (B)	2672
*511 to 514 (A) (B)	2671
*561 to 564 (A) (B)	2674
*571 to 574 (A) (B)	2675

*Equipped with Iron or Steel Arms or Track.

CHALLENGER LOCK AND HARDWARE DIV.
YALE & TOWNE, INC.

2600 Series OVERHEAD DOOR HOLDERS

FEDERAL SPECIFICATIONS FF-H-00111b Type	CHALLENGER SERIES
1160	2650
1160A	2650
1160D	2654
1161	2601
1161A	2601
1162A	2610-25
1162B	2610-30
1162C	2610-36
F1162	N/A
1164	2670
1165	2673
1166	2672
1166A	2671

YALE SERIES	CHALLENGER SERIES
601	2601
602	2602
610	2610
621	2621
F621	F2621
640	2640
641	2641
642	2642
643	2643
644	2644
645	2645
650	2650
651	2651
654	2654
655	2655
710	2670
711	2671
712	2672
713	2673
714	2674
715	2675

RUSSWIN	CHALLENGER SERIES
520	2621
521 to 523	N.C.
541 to 543	N.C.
600	2670
602	N.C.
603	N.C.
610	2672
612	N.C.
613	N.C.
620	2671
622	N.C.
623	N.C.
700	2650
702	2652
703	2654
1650	2673
1652	N.C.
1660	2675
1662	N.C.
1670	2674
1672	N.C.
2614	1440W
2750	2601
2752	2602
2755	2601 Less H.O.
2757	2602 Less H.O.
T 7521 to T 7523	N.C.
T 7541 to T 7543	N.C.

SARGENT & GREENLEAF All No's. prefixed by SG.				CHALLENGER SERIES
191V	to	194V	(191V)	2601
191AV	to	194AV	(191AV)	2601
*201	to	203	(200)	2672
*211	to	213	(210)	2671
*221	to	223	(220)	2672
*231	to	233	(230)	2671
*241	to	243	(240)	2675
*251	to	253	(250)	2674
521	to	524	(520)	N.C.
531	to	534	(530)	2641
571	to	574	(570)	N.C.
581	to	584	(580)	N.C.
611	to	614	(610)	2640
611V	to	614V	(610V)	2650
621	to	624	(620)	2640
621V	to	624V	(620V)	2650
631	to	634	(630)	2642
631V	to	634V	(630V)	2652
701	to	704	(700)	2644
701V	to	704V	(700V)	2654
821	to	825	(820)	2670
831	to	835	(830)	2671
841	to	845	(840)	2672
871	to	875	(870)	2673
881	to	885	(880)	2674
891	to	895	(890)	2675
1470	to	1473	(1470)	2621
1470FL	to	1473FL	(1470F)	F2621
1481	to	1483	(1480)	N.C.

*Equipped with Iron or Steel Arms or Track.

YALE & TOWNE

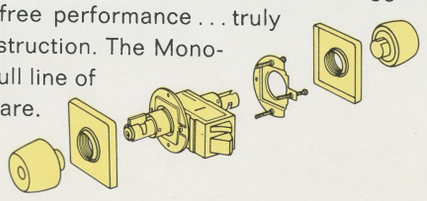
CHALLENGER LOCK AND HARDWARE DIV.

2349 WEST LA PALMA AVENUE ANAHEIM, CALIFORNIA • TEL. (AREA CODE 714) 774-1044



CHALLENGER® MONO-LOCK

Some buildings just naturally call for complete quality throughout; everything must be the best. And, there is absolutely no finer finishing touch than the Mono-Lock by Challenger. Unitized one-piece frame; rugged; dependable security; long trouble-free performance . . . truly the ultimate in heavy duty lock construction. The Mono-Lock is only a part of Challenger's full line of locking, latching, and closing hardware. Write for detailed literature.



EATON YALE & TOWNE INC

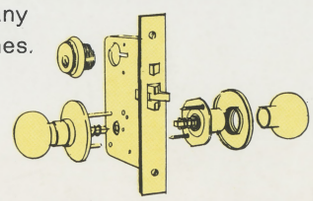
CHALLENGER® LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803



CHALLENGER® MORTISE LOCK

The Challenger Mortise Lock is probably the toughest, most dependable in all the industry. Construction is heavier; the mechanism is simplified. Exclusive thru-bolt application with concealed fastenings assures positive alignment, snug fit, with tamper-proof trim. Many designs in metal and wood in all required finishes. The Mortise Lock is only a part of a full line of locking, latching and closing hardware. Write for complete literature.



EATON YALE & TOWNE INC

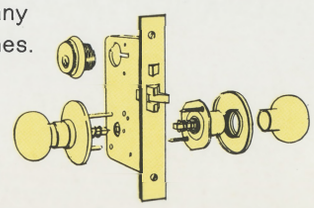
CHALLENGER® LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803



CHALLENGER® MORTISE LOCK

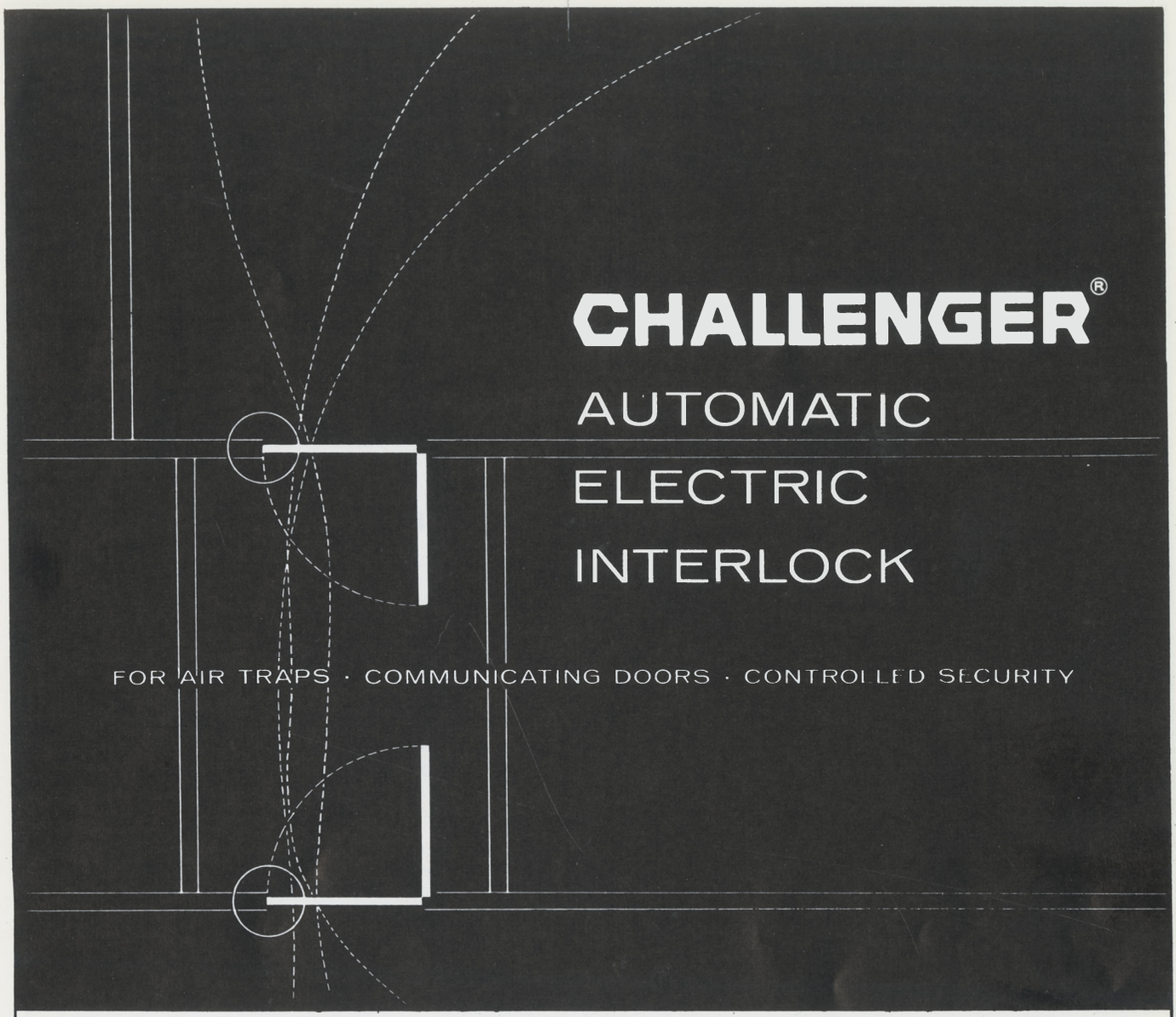
The Challenger Mortise Lock is probably the toughest, most dependable in all the industry. Construction is heavier; the mechanism is simplified. Exclusive thru-bolt application with concealed fastenings assures positive alignment, snug fit, with tamper-proof trim. Many designs in metal and wood in all required finishes. The Mortise Lock is only a part of a full line of locking, latching and closing hardware. Write for complete literature.



EATON YALE & TOWNE INC

CHALLENGER® LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE • ANAHEIM, CALIFORNIA 92803



CHALLENGER®

AUTOMATIC ELECTRIC INTERLOCK

FOR AIR TRAPS · COMMUNICATING DOORS · CONTROLLED SECURITY

Challenger has pioneered in the development and use of solenoid operated electric locking units and electromagnetic door holders and safety devices.

From darkroom light traps to complex space age 11-door multiple interlocking systems, Challenger specializes in designing and furnishing the complete system to provide the desired operation and protection.

Electric locks for industrial security, motion picture and television studios, banks, hospitals and atomic energy installations are also available as a standard or custom created installation.

Electro magnetic devices for door controls, in fire separation areas, in children's and elderly persons' institutions and homes, for traffic control and for office and security remote control door holders, Challenger offers the finest devices available.

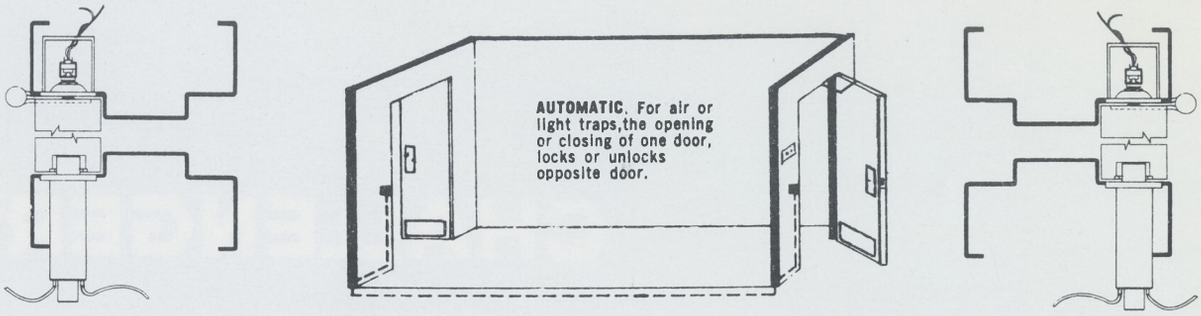
EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIV.

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

1400-C2/4-67/M-500

Automatic Light or Air Trap Lock



No. 1402 Automatic Light or Air Trap Lock

RECOMMENDED FOR USE IN: X-Ray and Photographic Darkrooms, Clean rooms, Air Showers, Constant Temperature rooms, Biological and Radiation Laboratories, or any other area where a light or air trap is desire.

OPERATION: The opening of either door operates the door switch which illuminates the pilot light and projects the latch of the opposite door locking it. When the originating door is closed, depressing the switch, which turns off the pilot light and retracts the latch, unlocking the door.

EMERGENCY RELEASE: Emergency release is obtained by a push button switch at each door, which unlocks its own door. An alarm can be sounded whenever the emergency button is pushed, if desired.

PRESSURIZED AREAS: We recommend that wherever possible, doors should open into the area of higher pressure, assuring a tight seal between the door and stop.

Both doors may be opened together in case of power failure, or by using a separate switch or circuit breaker when cleaning or moving equipment.

MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC
2 1426 Latch Units and Strikes
2 1452 Jamb Switch Units

2 1464 Emergency Switches
2 1480 Pilot Lights
2 1494 Cover Plates

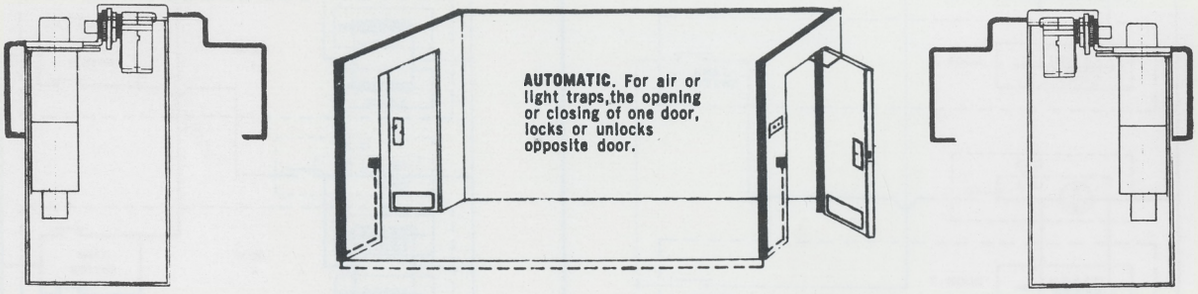
Additional Hardware recommended for each unit
3pr Concealed Ball Bearing Butt Hinges
2 Door Closers, Challenger 2160 Series
2 Push Plates
2 Flush Cup Pulls
2 Kick or Armor Plates
1 Deadlock, with Thumb Turn, Challenger 113B
6 Door Silencers

No. 1401 Automatic Light or Air Trap Lock

SAME AS 1402, EXCEPT LESS 1480 PILOT LIGHTS, 1464 EMERGENCY SWITCHES AND 1494 COVER PLATES.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Automatic Light or Air Trap Lock



No. 1412 Automatic Light or Air Trap Lock

RECOMMENDED FOR USE IN: X-Ray and Photographic Darkrooms, Clean rooms, Air Showers, Constant Temperature rooms, Biological and Radiation Laboratories, or any other area where a light or air trap is desire.

OPERATION: The opening of either door operates the door switch which illuminates the pilot light and projects the latch of the opposite door locking it. When the originating door is closed, depressing the switch, which turns off the pilot light and retracts the latch, unlocking the door.

EMERGENCY RELEASE: Emergency release is obtained by a push button switch at each door, which unlocks its own door. An alarm can be sounded whenever the emergency button is pushed, if desired.

PRESSURIZED AREAS: We recommend that wherever possible, doors should open into the area of higher pressure, assuring a tight seal between the door and stop.

Both doors may be opened together in case of power failure, or by using a separate switch or circuit breaker when cleaning or moving equipment.

MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC
2 1426 Latch Units and Strikes
2 1472 Combination Boxes and Cover Plates
2 1462 Jamb Switches
2 1464 Emergency Switches
2 1480 Pilot Lights
2 1494 Cover Plates

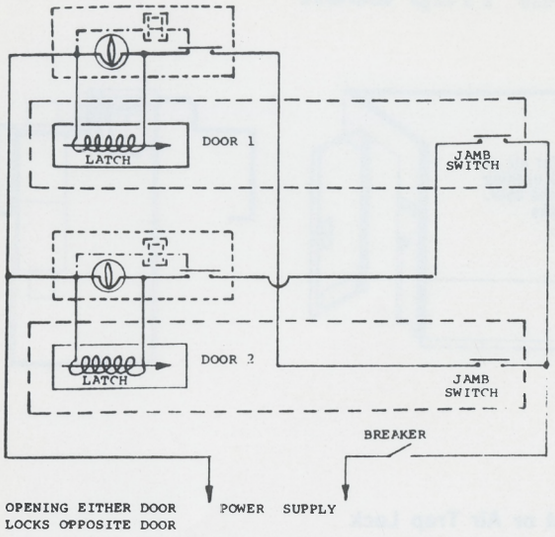
Additional Hardware recommended for each unit
3pr Concealed Ball Bearing Butt Hinges
2 Door Closers, Challenger 2160 Series
2 Push Plates
2 Flush Cup Pulls
2 Kick or Armor Plates
1 Deadlock,with Thumb Turn,Challenger 113B
6 Door Silencers

No. 1411 Automatic Light or Air Trap Lock

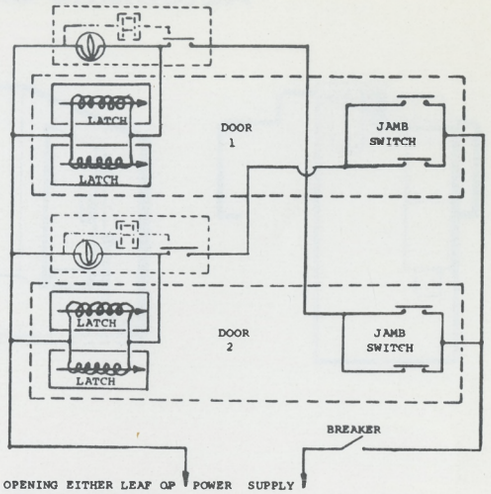
SAME AS 1412, EXCEPT LESS 1480 PILOT LIGHTS, 1464 EMERGENCY SWITCHES AND 1494 COVER PLATES.

LockTronic Electric Devices

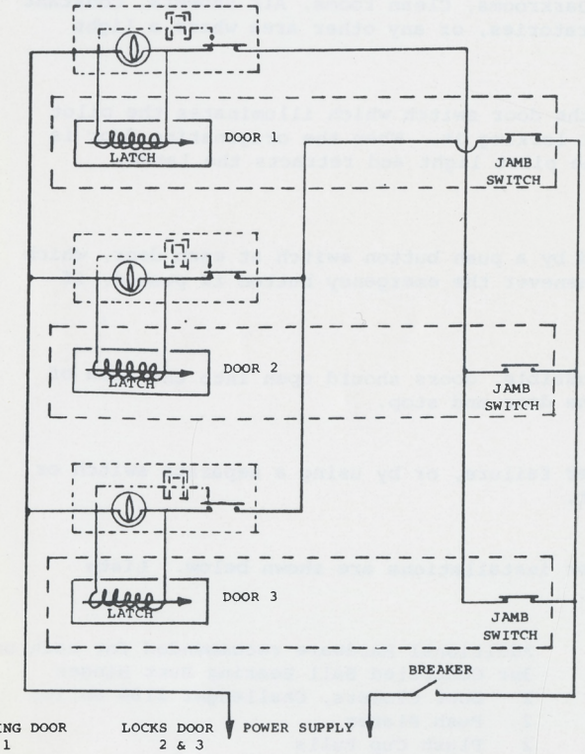
2 DOOR AUTOMATIC UNIT



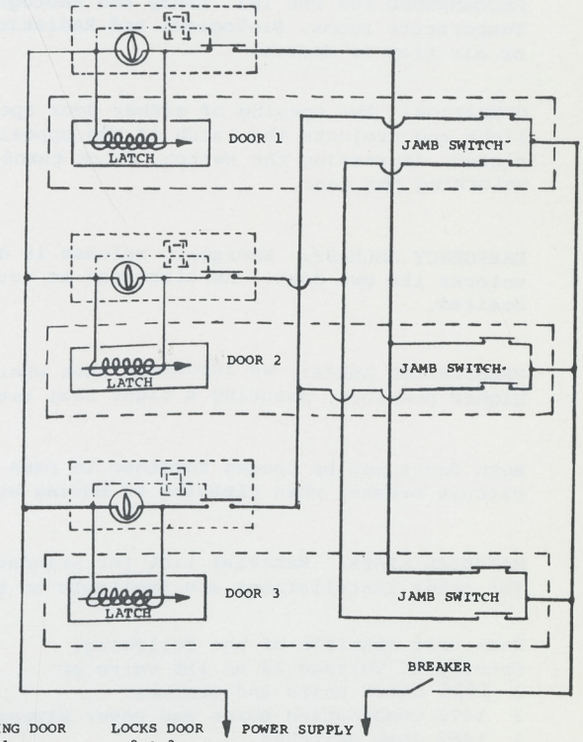
PAIR OF DOORS AUTOMATIC UNIT



3 DOOR VESTIBULE UNIT



3 DOOR AUTOMATIC UNIT



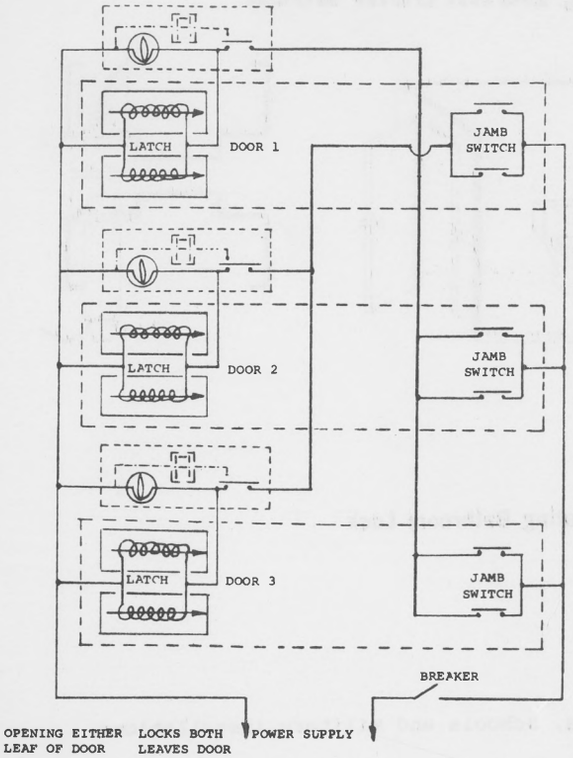
WIRING DIAGRAM

Automatic light or air trap lock

DIAGRAM NO. 1402 – 1412

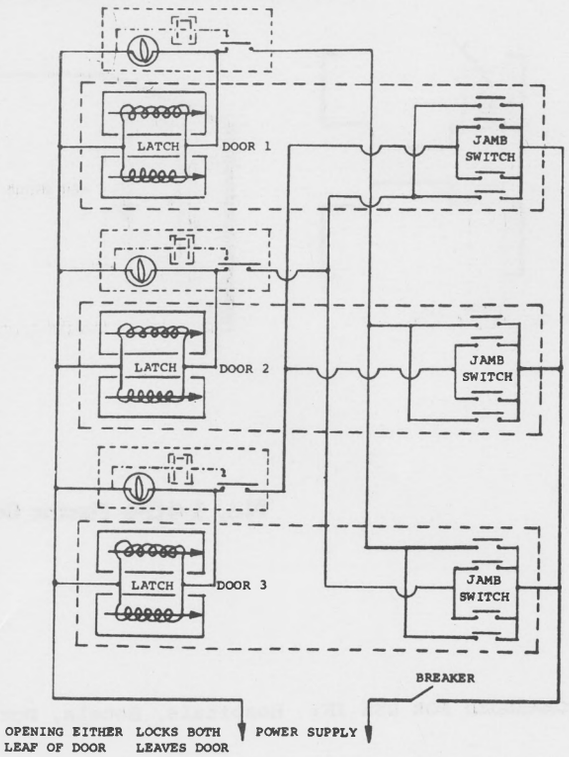
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

3 PAIR OF DOORS VESTIBULE UNIT



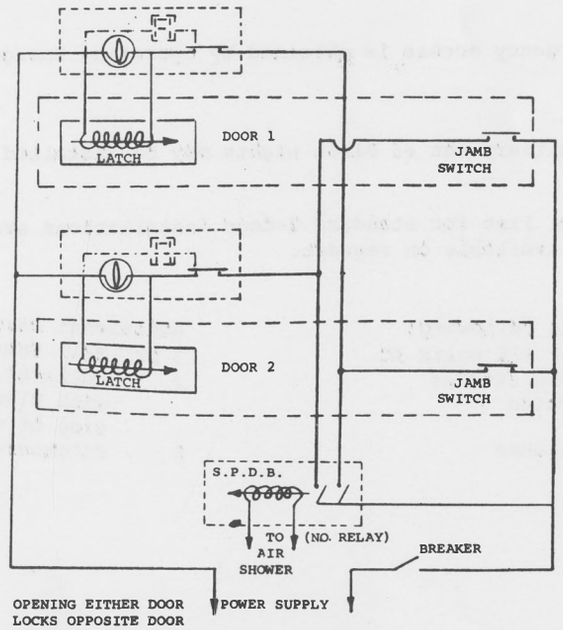
OPENING EITHER LEAF OF DOOR	LOCKS BOTH LEAVES DOOR
1	2 & 3
2	1
3	1

3 PAIR OF DOORS AUTOMATIC UNIT



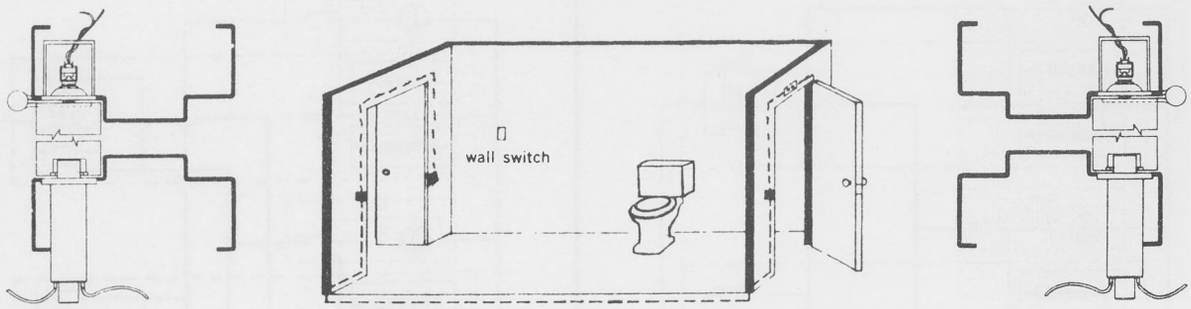
OPENING EITHER LEAF OF DOOR	LOCKS BOTH LEAVES DOOR
1	2 & 3
2	1 & 3
3	1 & 2

2 DOOR AUTOMATIC UNIT, FOR USE WITH AIR SHOWER



OPENING EITHER DOOR LOCKS OPPOSITE DOOR OPERATING AIR SHOWER LOCKS BOTH DOORS.

Electric Communicating Bathroom Lock



No. 1404 Electric Communicating Bathroom Lock

RECOMMENDED FOR USE IN: Hospitals, Hotels, Dormitories, Schools and Military installations.

OPERATION: Upon entering bathroom occupant turns outer knob unlocking lockset. To lock bathroom doors occupant closes both doors if open, and operates the wall switch to locked position illuminating both pilot lights and locking both doors. Operating wall switch to unlocked position turns off both pilot lights and unlocks both doors. After leaving bathroom occupant presses push button in lockset which prevents anyone from adjoining rooms from entering occupants room.

EMERGENCY RELEASE: Emergency access is obtained by operating Emergency Switch located above each door.

For hospital use, an auxiliary set of Pilot Lights may be installed at the Nurses Station.

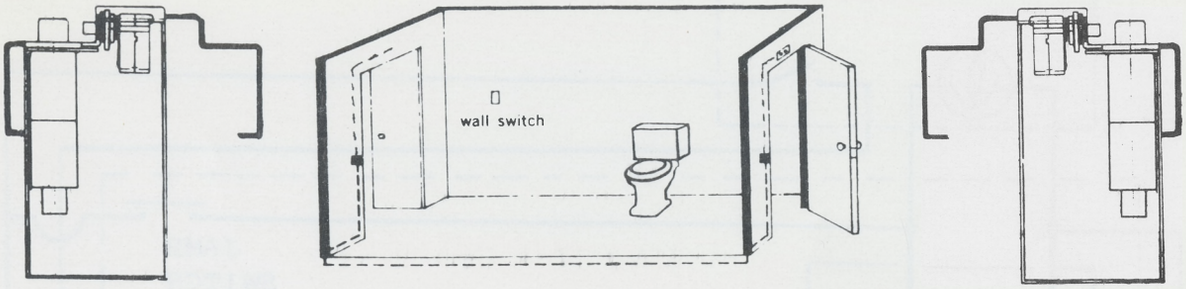
MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC voltage 24 or 115 volts AC
2 No. 1426 Latch Units and Strikes
2 No. 1453 Jamb Switch Units
1 No. 1461 Switch
2 No. 1463 Emergency Switches
2 No. 1480 Pilot Lights
1 No. 1491 Switch Plate
2 No. 1492 Cover Plates

Additional Hardware recommended for each unit
3 pr Ball Bearing Butt Hinges
2 Locksets, Challenger No. 920S. Install with Blank or Closed knob on Bathroom side of door.
6 Silencers

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Electric Communicating Bathroom Lock



No. 1414 Electric Communicating Bathroom Lock

RECOMMENDED FOR USE IN: Hospitals, Hotels, Dormitories, Schools and Military installations.

OPERATION: Upon entering bathroom occupant turns outer knob unlocking lockset. To lock bathroom doors occupant closes both doors if open, and operates the wall switch to locked position illuminating both pilot lights and locking both doors. Operating wall switch to unlocked position turns off both pilot lights and unlocks both doors. After leaving bathroom occupant presses push button in lockset which prevents anyone from adjoining rooms from entering occupants room.

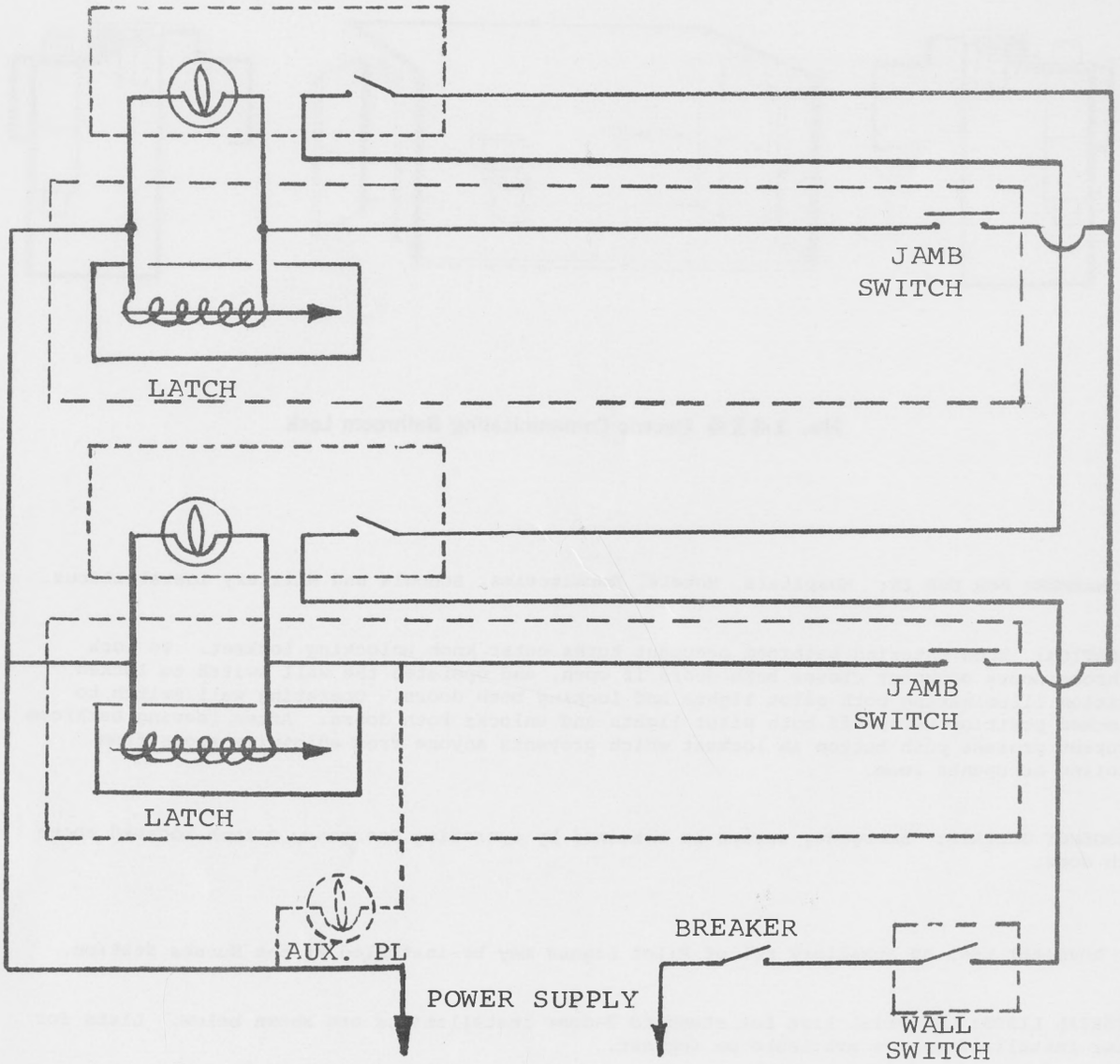
EMERGENCY RELEASE: Emergency access is obtained by operating Emergency Switch located above each door.

For hospital use, an auxiliary set of Pilot Lights may be installed at the Nurses Station.

MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC voltage 24 or 115 volts AC
2 No. 1426 Latch Units and Strikes
2 No. 1472 Combination Boxes and Cover Plates
2 No. 1453-1 Jamb Switches
1 No. 1461 Switch
2 No. 1463 Emergency Switches
2 No. 1480 Pilot Lights
1 No. 1491 Switch Plate
2 No. 1492 Cover Plates

Additional Hardware recommended for each unit
3 pr Ball Bearing Butt Hinges
2 Locksets, Challenger No. 920S. Install with Blank or Closed knob on Bathroom side of door.
6 Silencers

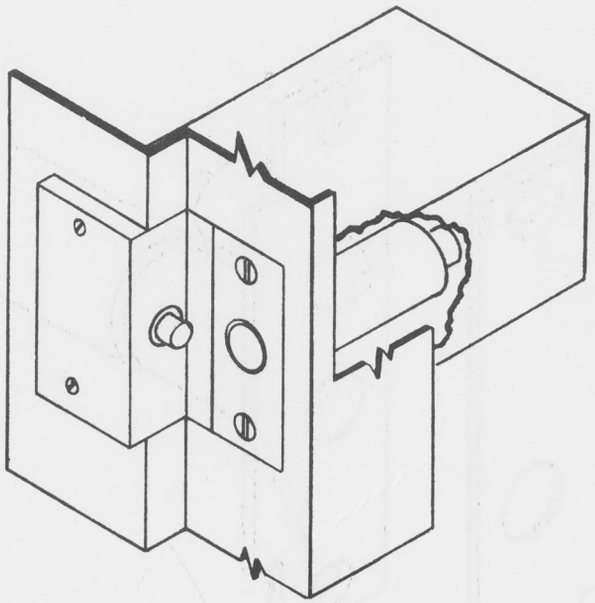


WIRING DIAGRAM

DIAGRAM NO. 1404 - 1414

Electric Communicating Bathroom Lock

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803



NO. 1418 SAFETY ELECTRIC LOCKING UNIT

NO. 1419 CONTINUOUS DUTY ELECTRIC LOCKING UNIT

RECOMMENDED FOR USE IN: X-Ray Treatment Rooms; Motion Picture, Radio, Television or Recording Studios; X-Ray Laboratories; Atomic Energy and Radio Active Operations; Dangerous Equipment Rooms; Painting or Sandblasting Booths; Money Counting Rooms; Signal or Cryptography Rooms.

OPERATION: Operation of equipment or separate switch projects bolt, locking the door. When equipment or switch is turned off, bolt is retracted, unlocking the door. Jamb switch prevents bolt from being projected unless door is in closed position.

EMERGENCY RELEASE: Emergency release and pilot light system is available to unlock door when emergency button is pushed, and consists of:

1 - 1464 Emergency Switch
1 - 1480 Pilot Light
1 - 1494 Cover Plate

An alarm can be sounded whenever the emergency button is pushed, if desired.

SPECIAL SWITCH: Jamb switch S-14-04 can be substituted for switch 1453-1, which, when installed with a relay can prevent the equipment from operating unless the door is in the closed position.

NO. 1418

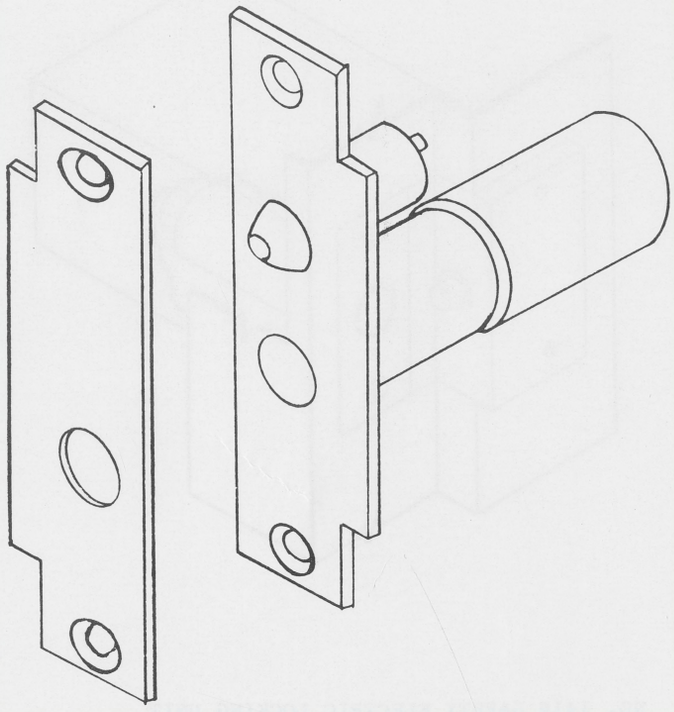
Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC

1 - 1426 Latch Unit and Strike
1 - 1453-1 Jamb Switch
1 - 1472 Combination Box and Cover Plate

NO. 1419

Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC

1 - 1419-1 Latch Unit and Strike
1 - 1453-1 Jamb Switch
1 - 1472 Combination Box
1 - 1419C Cover Plate



1421-24 Pass Box Interlock
24 Volts .50 AMPS (Equipped with Diodes to eliminate AC hum)

Recommended for use in pass boxes with swinging doors or vertical sliding windows. Can also be used with stock hollow metal frames to provide air or light trap interlock operation.

Operation:	Bolt Projected when energized. Normally unlocked.
Equipped with:	Normally closed ("off" when depressed) switch.
Face:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8, (fits ASA cutout, 1-3/4" doors).
Bolt:	Nylon 5/8" diameter with 1/2" throw.
Case:	Brass and steel, zinc plated 1-1/8" diameter x 4-1/4" long.
Strike:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8,

1424-24 Safety Electric Locking Unit
24 Volts .50 AMPS (Equipped with Diodes to eliminate AC hum)

Recommended for stock hollow metal frames or other applications where No. 1414 electric communicating bathroom unit or No. 1418 safety electric locking unit will not suit the details.

Operation:	Bolt projected when energized. Normally unlocked
Equipped with:	Normally open ("on" when depressed) switch.
Face:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8, (fits ASA cutout, 1-3/4" doors).
Bolt:	Nylon 5/8" diameter with 1/2" throw.
Case:	Brass and steel, zinc plated 1-1/8" diameter x 4-1/4" long.
Strike:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8,

1421-24 and 1424-24 units can be furnished with 1410 solenoid, case 1" diameter x 3-1/2" long (NO DIODES) if desired. Specify by catalog 1421-24 x 1410 solenoid or 1424-24 x 1410 solenoid.

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CHALLENGER LOCK AND HARDWARE DIV.
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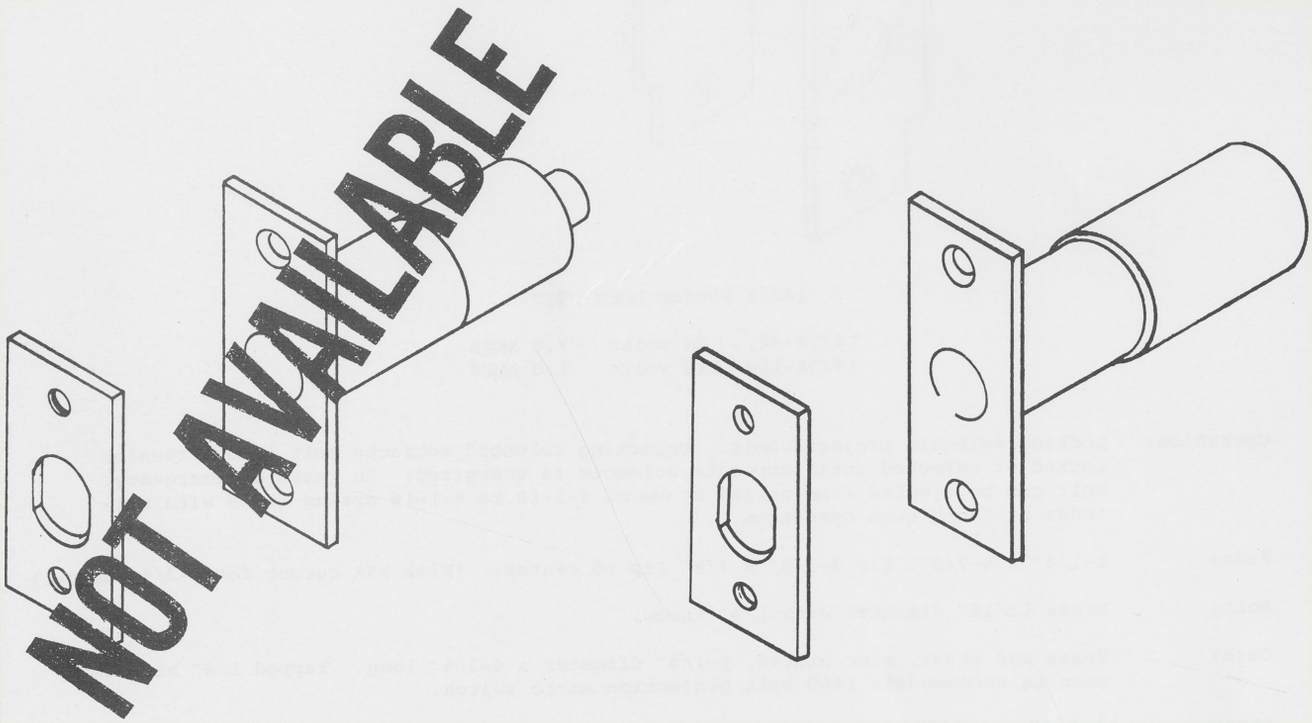
ELECTRIC LATCH UNITS

Challenger has become the leader in solenoid operated electric locks for use in Air or Light Traps, X-Ray Areas, Clean Rooms, Rubbish and Laundry Chutes, Defense Facilities, Banks and Hospitals.

All units are equipped with 12" leads of No. 18-105° C wire.

Lock units 1410-110, 1425-110 and 1426-110 are listed by Underwriters' Laboratories under Guide 540 I0, file E30801, when enclosed in a mounting box.

Engineering assistance is available for specialized applications.



1410 STANDARD LATCH UNIT

1410-24, 24 Volts 2.0 AMPS
1410-110, 115 Volts 0.5 AMPS

Operation: Bolt projected when energized. Normally unlocked.

Face: Brass 1-1/4 x 2-3/4

Bolt: Nylon 5/8" dia. with 1/2" throw

Case: Brass and steel zinc plated 1" dia. x 3-1/2" long

Strike: 1-1/8" x 2-1/4"

1426 SILENT LATCH UNIT WITH DIODES TO ELIMINATE AC HUM

1426-24, 24 Volts .50 AMPS
1410-110, 115 Volts .15 AMPS

Operation: Bolt projected when energized. Normally unlocked.

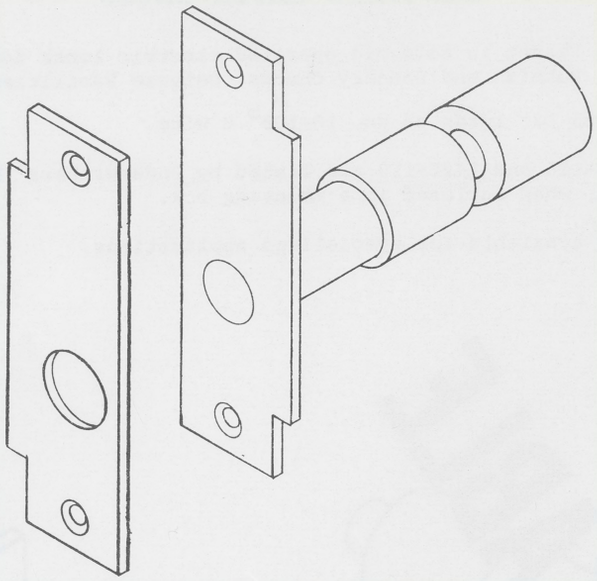
Face: 1-1/4 x 2-3/4

Bolt: Nylon 5/8" diameter with 1/2" throw

Case: Brass and steel zinc plated 1-1/8" dia. x 4-1/4" long

Strike: 1-1/8" x 2-1/4"

Replacement solenoids are available as catalog numbers RS 1410-24, RS 1410-110, RS 1425-24, RS 1425-110, RS 1426-24, RS 1426-110, or we will rewind customers' solenoids.



1425S SPRING LOCK UNIT

1425S-24, 24 volts 7.0 AMPS
1425S-110, 115 volts 1.0 AMPS

Operation: Locking solenoid projects bolt. Unlocking solenoid retracts bolt. Bolt remains locked or unlocked until opposite solenoid is energized. In cases of emergency, bolt can be ejected from strike by use of S-1-12 to S-1-16 spring locks with cylinder or thumb turn operation.

Face: 1-1/4" x 4-7/8", lip 3-3/8" x 7/8" lip to center. (Fits ASA cutout for 1-3/4" doors.)

Bolt: Brass 13/16" diameter with 1/2" throw.

Case: Brass and steel, zinc plated, 1-1/4" diameter x 4-3/4" long. Tapped 1/4" hole in case to accommodate 1460 bolt projection micro switch.

Strike: 1-1/4" x 4-7/8", lip 3-3/8" x 7/8" lip to center.

OPTIONAL FEATURES

Indicator Switch: 1460 bolt projection micro switch available for attaching to case to illuminate pilot light when bolt is projected, or retracted, or both.

Jamb Switch: 1453 jamb switch assembly recommended to prevent lock from being operated unless door is closed. Can also illuminate pilot light to indicate if door is closed.

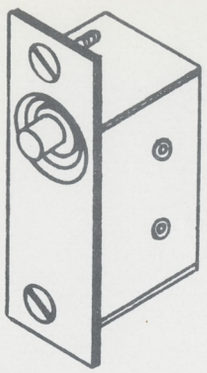
Operating Switches: 1465 single pole momentary contact (normally open) switches recommended. Use with 1480-24 or 1480-110 pilot lights. Mounted in cover plates 1495-12, 1495-12N, 1495-13, and 1495-22. Special plates to order.

If operation by key is desired, No. 1469-M.O. key switch is recommended. Will accommodate any standard 1-1/8" mortise cylinder for keying into Building Master-key systems.

Replacement solenoids are available as catalog numbers RS 1410-24, RS 1410-110, RS 1425-24, RS 1425-110, RS1426-24, RS1426-110, or we will rewind customer's solenoid.

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JAMB SWITCH ASSEMBLIES AND SWITCHES



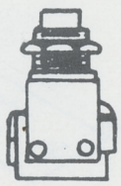
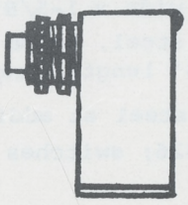
HINGE JAMB MOUNTING

BOX: 2-11/16 X 1-3/8 X 1-1/2" DEEP

COVER: 4 X 1-1/2"

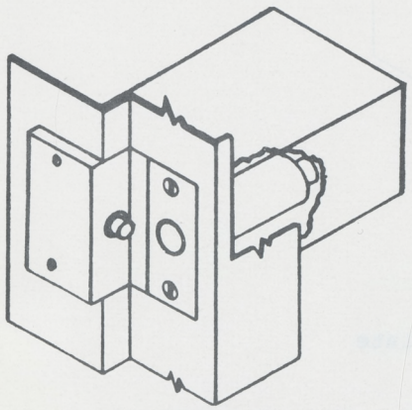
ELECTRICAL RATING:

5 AMPS – 125 VOLTS

COMPLETE SWITCH ASSEMBLY		SWITCH ONLY	CIRCUIT W/LEADS	SPARE CIRCUIT NO LEADS	USED IN UNIT
1452		1452-1	1-N.C.	1-N.O.	1401-1402
1452-3DA		1452-3	2-N.C.	2-N.O.	1401-3DA 1402-3DA
1452-4DA		1452-4	3-N.C.	3-N.O.	1401-4DA 1402-4DA
1453		1453-1	1-N.O.		1404

ALL SWITCHES SUPPLIED WITH 12" 105°C LEADS, EXCEPT 1453-1 AND 1462 WHICH HAVE 6" 90°C LEADS.

SWITCH CIRCUIT ARRANGEMENT: N.C. NORMALLY CLOSED "ON" WHEN DOOR IS OPEN
N.O. NORMALLY OPEN "OFF" WHEN DOOR IS OPEN.



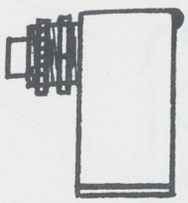
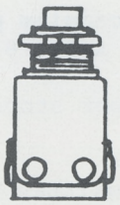
LOCK JAMB MOUNTING

BOX: CAT. NO. 1472

ALSO USED IN SURFACE MOUNTED BOX 1471

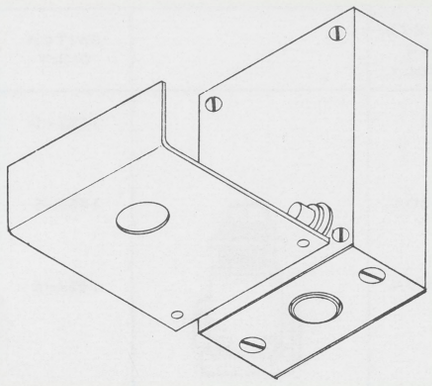
ELECTRICAL RATING:

5 AMPS – 125 VOLTS

		1453-1	1-N.O.		1414-1418
		1462	1-N.C.		1411-1412
		1462-3	2-N.C.	2-N.O.	1411-3DA 1412-3DA

LATCH AND SWITCH BOXES

(Shown with latch and switch, not included)



No. 1471 Surface Applied Case and Strike

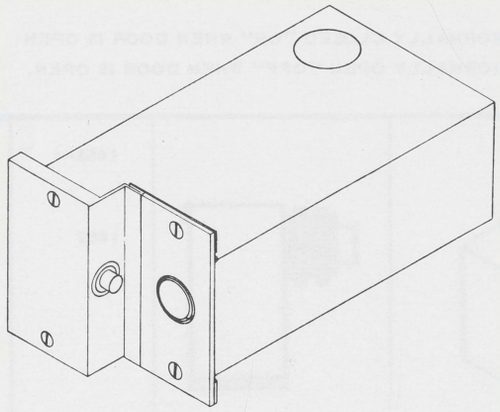
For wood or metal doors with flush or offset trim, Maximum reveal 5/8"

Case: 16 Ga. cold rolled steel, prime coat
5-1/8" high x 4-1/8" wide x 1-5/8" projection

Strike: 16 Ga. cold rolled steel, prime coat
4-1/8" wide x 3-1/4" length, angle lip 1-7/16"

Also available in stainless steel at additional cost

Accommodates latch units #1426; switches #1453-1, #1462 & #1462-36



No. 1472 Combination Box and Cover Plate

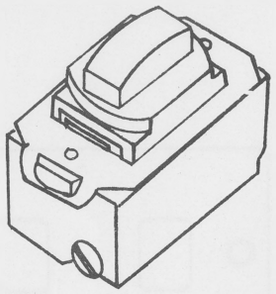
Case: 16 Ga. cold rolled steel, cadmium plated
1-7/8" high x 3-1/16" wide x 5-1/8" long from face of latch

Face & Cover: 2-3/4" high, for door stops 1/2" to 3/4" thick, 1-1/2" minimum width

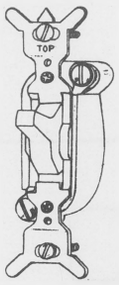
Accommodates latch units #1426; switches #1453-1, #1462 and #1462-3

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SWITCHES
(FURNISHED WITH SCREW TERMINALS)



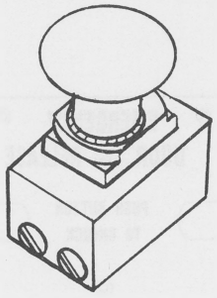
MOMENTARY CONTACT SWITCHES
Single Pole
1465 (Normally Open)
1466 (Normally Closed)
Rating: 15 AMPS - 115 Volts AC



SILENT MERCURY BATHROOM SWITCH
Single Pole
1461-24, 24 Volts AC
1461-110, 115 Volts AC, with handle illuminated when in "OFF" position
Rating: 15 AMPS - 115 Volts AC

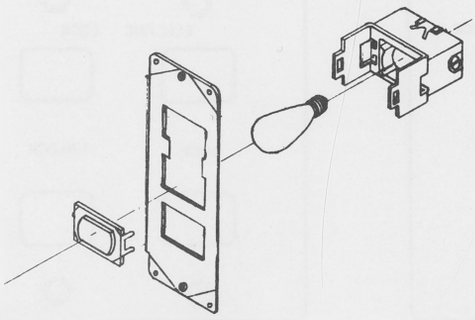


1463 EMERGENCY SWITCH
Single Pole, Maintained Contact
Rating: 10 AMPS - 115 Volts AC

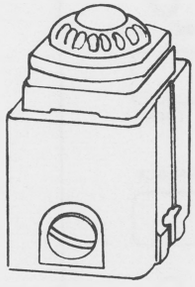


1464 EMERGENCY SWITCH
Two Circuit. Has large 1" red plastic button. Used for interlock emergency release and auxiliary alarm systems
Rating: 6 AMPS - 115 Volts AC

PILOT LIGHTS

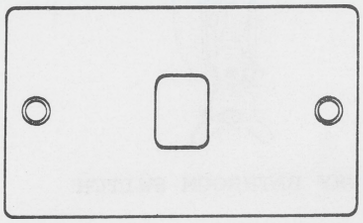


1480-24 PILOT LIGHT
S6 Bulb, 6 Watts, 30 Volts
Red Lens, Amber or Green Lens When Specified

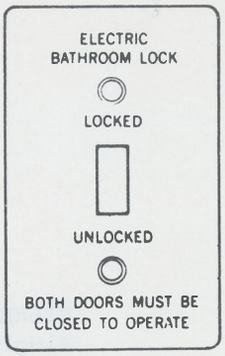


1480-110 PILOT LIGHT
Red Neon Bulb
1/25 Watt - 115 Volts

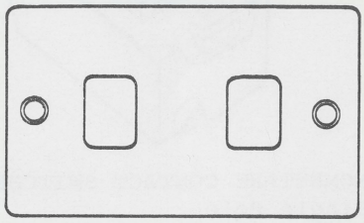
SWITCH AND COVER PLATES
DULL STAINLESS STEEL, TYPE 302 (US 32D) FINISH, EXCEPT AS NOTED



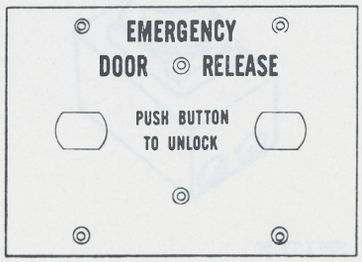
1490 SINGLE COVER PLATE



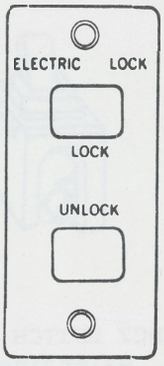
1491 BATHROOM SWITCH PLATE
(Used With 1461 Switch)



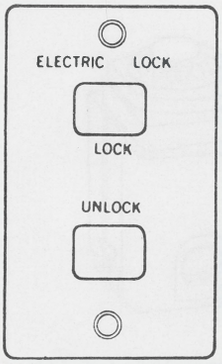
1492 DOUBLE COVER PLATE



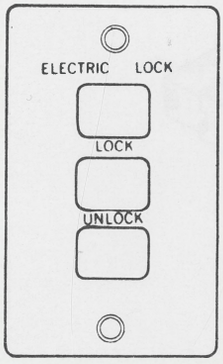
1494 EMERGENCY COVER PLATE
(Red With White Letters)



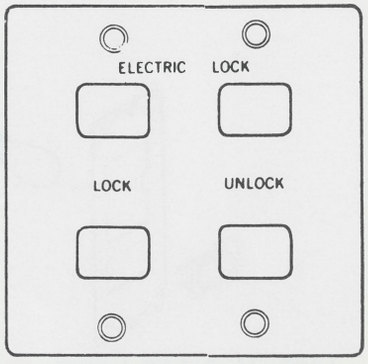
1495-12N NARROW 1-3/4" COVER PLATE



1495-12 DOUBLE COVER PLATE



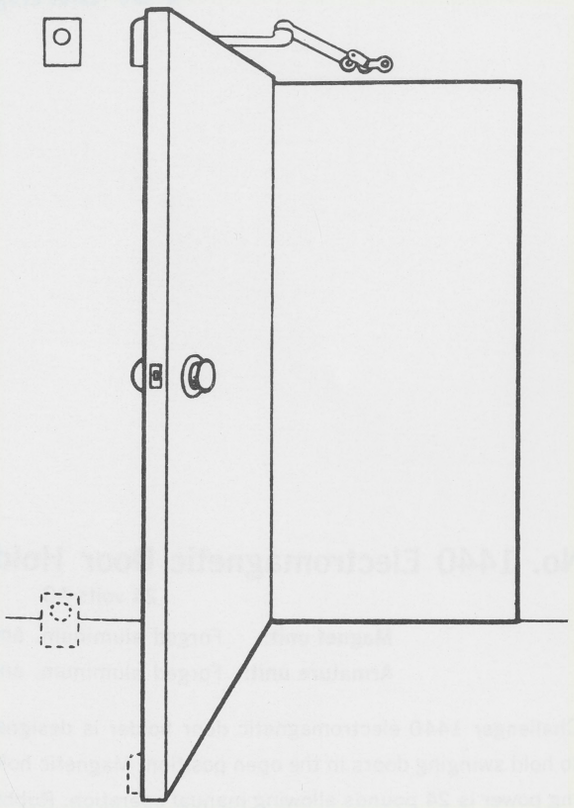
1495-13 TRIPLE COVER PLATE



1495-22 COVER PLATE

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

ELECTROMAGNETIC DOOR HOLDERS



Electromagnetic Door Holders

for

- **Fire Doors**
- **Security Control**
- **Private Offices**

Fire Doors

Allows swinging, sliding or vertical lift fire doors in buildings equipped with approved smoke or fire detection devices to close up to 4 times faster than with fusible link door closers.

Security Control

Closer equipped doors with fixed knob locks can be closed by remote control to achieve greater personnel control.

Private Offices

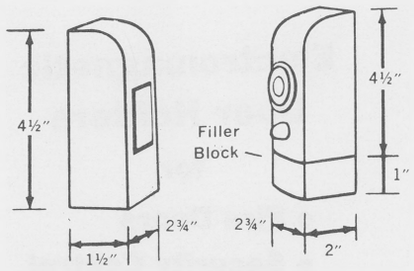
Instant privacy can be obtained by merely pushing a button on your desk, allowing the closer equipped door to close for private conversations or telephone calls.

Exclusive Features:

- **STREAMLINED APPEARANCE**
  Slim, streamlined cases attach with "tamper proof" screws preventing ambitious children in schools from removing the units, and eliminates the problem of riding or hanging on the door unit.
- **SILENT OPERATION**
  A special integral unit converts 24 volt AC current to quiet, steady direct current assuring noiseless operation; a must in hospitals and other institutions.
- **LOW POWER CONSUMPTION**
  Each unit draws only 3 watts of power. (20 units consume the energy of one 60 watt light bulb.)
- **FAIL-SAFE**
  Doors close automatically if power fails.

ELECTROMAGNETIC DOOR HOLDERS

For Swinging Doors



ARMATURE UNIT MAGNET UNIT

Weight 6 lbs.

No. 1440 Electromagnetic Door Holders

24 volts AC 125 amps maximum

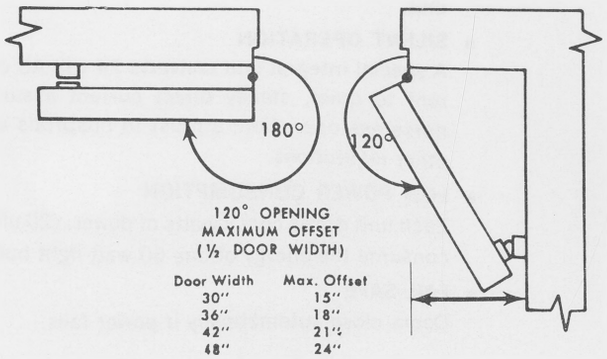
Magnet unit: Forged aluminum, anodized 4½" high, 2¾" wide, 2" projection.

Armature unit: Forged aluminum, anodized 4½" high, 2¾" wide, 1½" projection.

Challenger 1440 electromagnetic door holder is designed to hold swinging doors in the open position. Magnetic holding power is 24 pounds allowing manual operation. Rubber bumper allows for use as a door stop when the magnet is not energized. The doors will be released by interruption of power allowing the doors to close them automatically by the door closers.

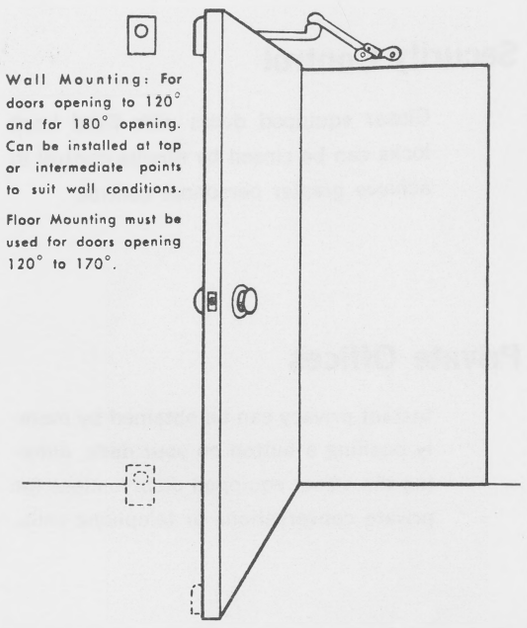
The magnet unit can be wall-mounted on the surface, fastened to a standard single outlet box (3⅜" screw spacing), or attached to ½" conduit. It can also be floor-mounted with the use of 1440-18 filler block on ¾" rigid conduit.

PLAN VIEWS



120° OPENING
MAXIMUM OFFSET
(⅓ DOOR WIDTH)

Door Width	Max. Offset
30"	15"
36"	18"
42"	21"
48"	24"



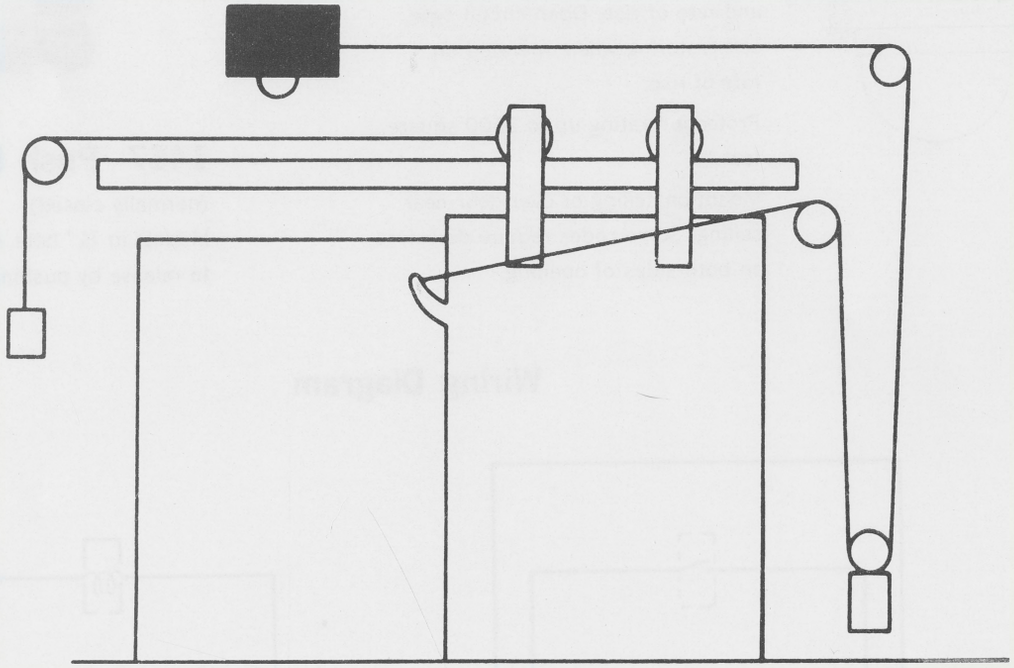
Wall Mounting: For doors opening to 120° and for 180° opening. Can be installed at top or intermediate points to suit wall conditions.

Floor Mounting must be used for doors opening 120° to 170°.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

ELECTROMAGNETIC DOOR HOLDERS

For Sliding and Rolling Doors and Windows



Surface Applied Electromagnetic Sliding Door Holder and Pre-wired Power Packs

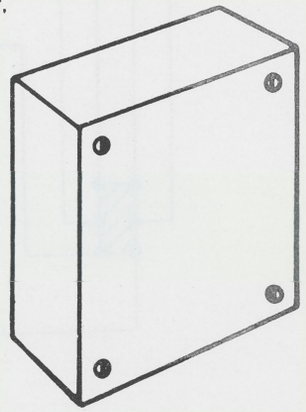
1441 115 volts AC input, sliding door holder 24 pound holding force.

1445-24 115 volts AC input, power pack. Contains 24 volt, 25 watt transformer, relay and terminal block.

1445-524 115 volts AC input, power pack 1445-24, with 1445-501 detector.

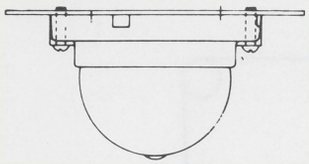
Challenger 1441 electromagnetic sliding door holder is designed to hold sliding or rolling doors or windows in the open position. Manual operation of fire doors is not restricted as the door holder merely replaces the standard fusible link. 1441 unit includes 25 watt transformer, relay and terminal block.

1445-24 pre-wired power pack is for use with No. 1440 electromagnetic door holder. It includes a 25 watt transformer and a normally closed relay for use with 1445-501 detectors. A terminal block is provided so that door holders or detectors may merely be plugged into the unit.



Case: Flush screw cover, prime coated steel, 6"x6"x3½"

ELECTROMAGNETIC DOOR HOLDERS

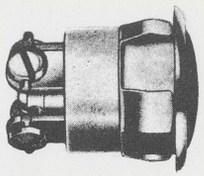


1445-501 Detector

Combination fixed temperature (136°F) and rate of rise. Open circuit type, self-restoring when operated on rate of rise.

Protection rating up to 2500 square feet.

Mount on ceiling or over door near ceiling. Some codes require detectors on both sides of opening.

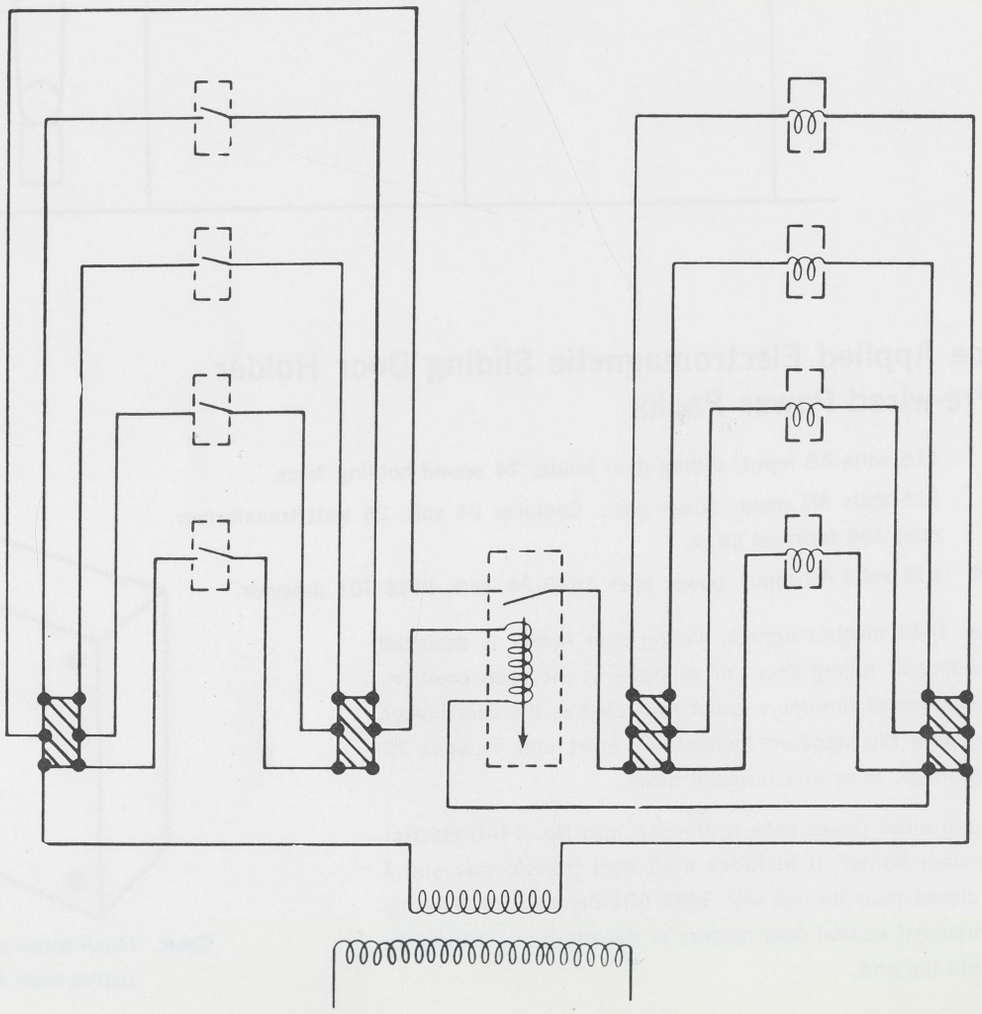


1467 Push Button Switch

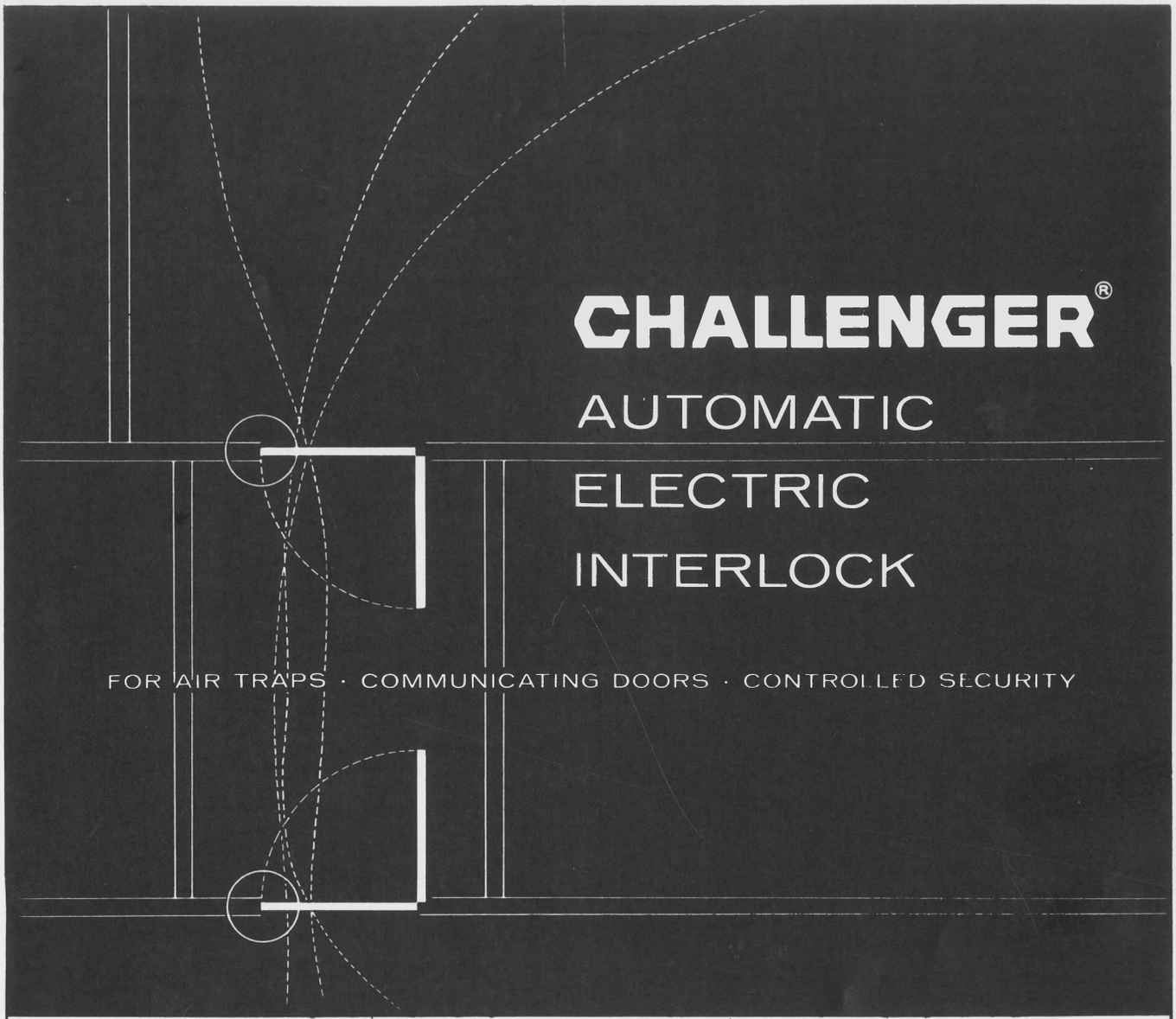
(normally closed)

Mounts in ¾" hole. Allows door holders to release by pushing button.

Wiring Diagram



EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803



CHALLENGER®

AUTOMATIC ELECTRIC INTERLOCK

FOR AIR TRAPS · COMMUNICATING DOORS · CONTROLLED SECURITY

Challenger has pioneered in the development and use of solenoid operated electric locking units and electromagnetic door holders and safety devices.

From darkroom light traps to complex space age 11-door multiple interlocking systems, Challenger specializes in designing and furnishing the complete system to provide the desired operation and protection.

Electric locks for industrial security, motion picture and television studios, banks, hospitals and atomic energy installations are also available as a standard or custom created installation.

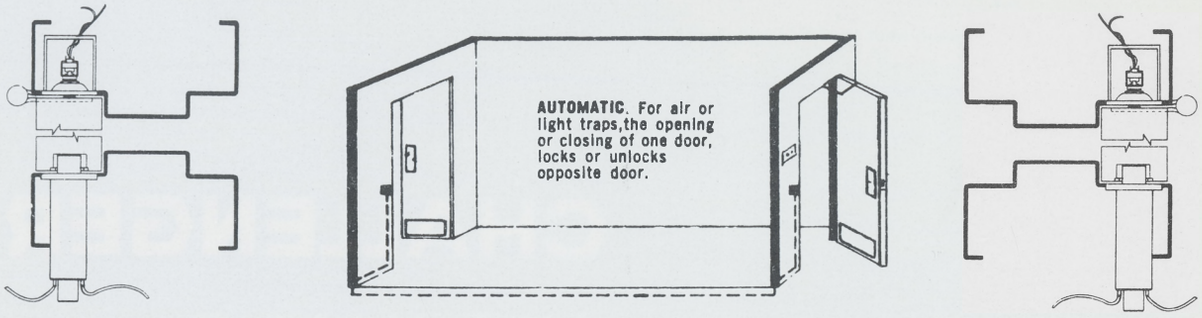
Electro magnetic devices for door controls, in fire separation areas, in children's and elderly persons' institutions and homes, for traffic control and for office and security remote control door holders, Challenger offers the finest devices available.

EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

1400-C2/4-67/M-500

Automatic Light or Air Trap Lock



No. 1402 Automatic Light or Air Trap Lock

RECOMMENDED FOR USE IN: X-Ray and Photographic Darkrooms, Clean rooms, Air Showers, Constant Temperature rooms, Biological and Radiation Laboratories, or any other area where a light or air trap is desire.

OPERATION: The opening of either door operates the door switch which illuminates the pilot light and projects the latch of the opposite door locking it. When the originating door is closed, depressing the switch, which turns off the pilot light and retracts the latch, unlocking the door.

EMERGENCY RELEASE: Emergency release is obtained by a push button switch at each door, which unlocks its own door. An alarm can be sounded whenever the emergency button is pushed, if desired.

PRESSURIZED AREAS: We recommend that wherever possible, doors should open into the area of higher pressure, assuring a tight seal between the door and stop.

Both doors may be opened together in case of power failure, or by using a separate switch or circuit breaker when cleaning or moving equipment.

MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC
2 1426 Latch Units and Strikes
2 1452 Jamb Switch Units

2 1464 Emergency Switches
2 1480 Pilot Lights
2 1494 Cover Plates

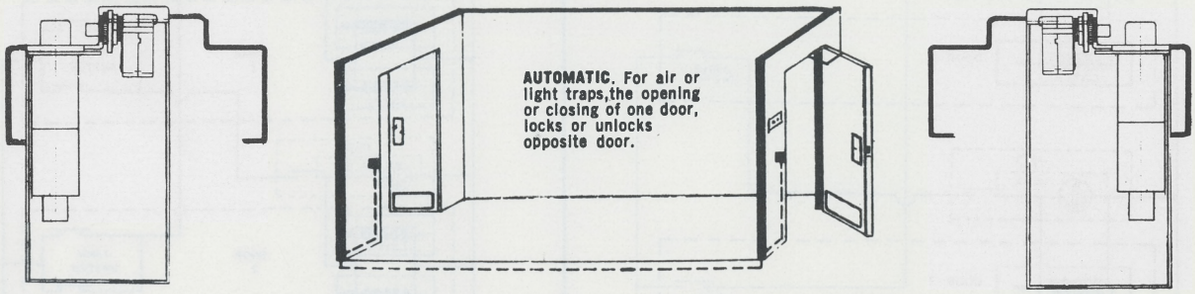
Additional Hardware recommended for each unit
3pr Concealed Ball Bearing Butt Hinges
2 Door Closers, Challenger 2160 Series
2 Push Plates
2 Flush Cup Pulls
2 Kick or Armor Plates
1 Deadlock, with Thumb Turn, Challenger 113B
6 Door Silencers

No. 1401 Automatic Light or Air Trap Lock

SAME AS 1402, EXCEPT LESS 1480 PILOT LIGHTS, 1464 EMERGENCY SWITCHES AND 1494 COVER PLATES.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Automatic Light or Air Trap Lock



No. 1412 Automatic Light or Air Trap Lock

RECOMMENDED FOR USE IN: X-Ray and Photographic Darkrooms, Clean rooms, Air Showers, Constant Temperature rooms, Biological and Radiation Laboratories, or any other area where a light or air trap is desire.

OPERATION: The opening of either door operates the door switch which illuminates the pilot light and projects the latch of the opposite door locking it. When the originating door is closed, depressing the switch, which turns off the pilot light and retracts the latch, unlocking the door.

EMERGENCY RELEASE: Emergency release is obtained by a push button switch at each door, which unlocks its own door. An alarm can be sounded whenever the emergency button is pushed, if desired.

PRESSURIZED AREAS: We recommend that wherever possible, doors should open into the area of higher pressure, assuring a tight seal between the door and stop.

Both doors may be opened together in case of power failure, or by using a separate switch or circuit breaker when cleaning or moving equipment.

MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

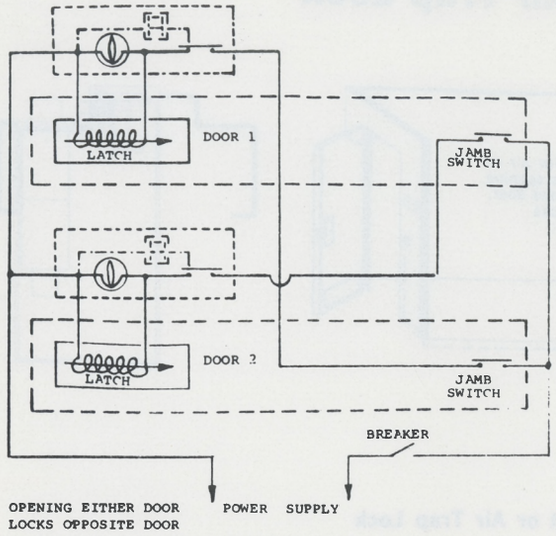
Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC
2 1426 Latch Units and Strikes
2 1472 Combination Boxes and Cover Plates
2 1462 Jamb Switches
2 1464 Emergency Switches
2 1480 Pilot Lights
2 1494 Cover Plates

Additional Hardware recommended for each unit
3pr Concealed Ball Bearing Butt Hinges
2 Door Closers, Challenger 2160 Series
2 Push Plates
2 Flush Cup Pulls
2 Kick or Armor Plates
1 Deadlock, with Thumb Turn, Challenger 113B
6 Door Silencers

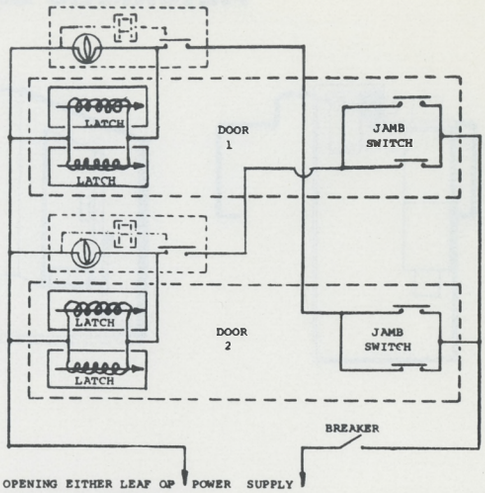
No. 1411 Automatic Light or Air Trap Lock

SAME AS 1412, EXCEPT LESS 1480 PILOT LIGHTS, 1464 EMERGENCY SWITCHES AND 1494 COVER PLATES.

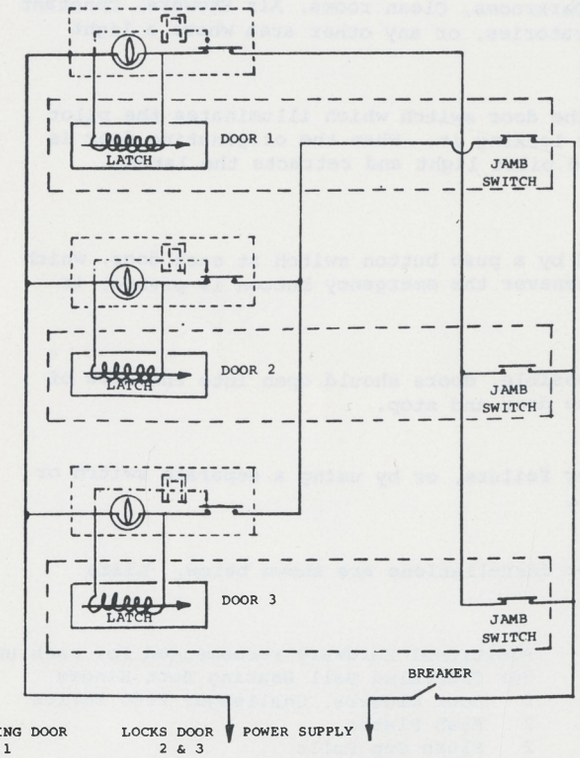
2 DOOR AUTOMATIC UNIT



PAIR OF DOORS AUTOMATIC UNIT

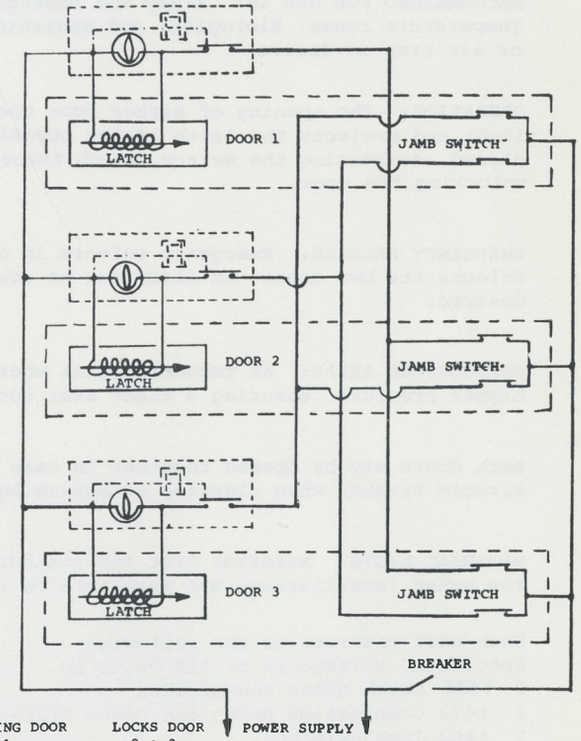


3 DOOR VESTIBULE UNIT



OPENING DOOR	LOCKS DOOR
1	2 & 3
2	1
3	1

3 DOOR AUTOMATIC UNIT



OPENING DOOR	LOCKS DOOR
1	2 & 3
2	1 & 3
3	1 & 2

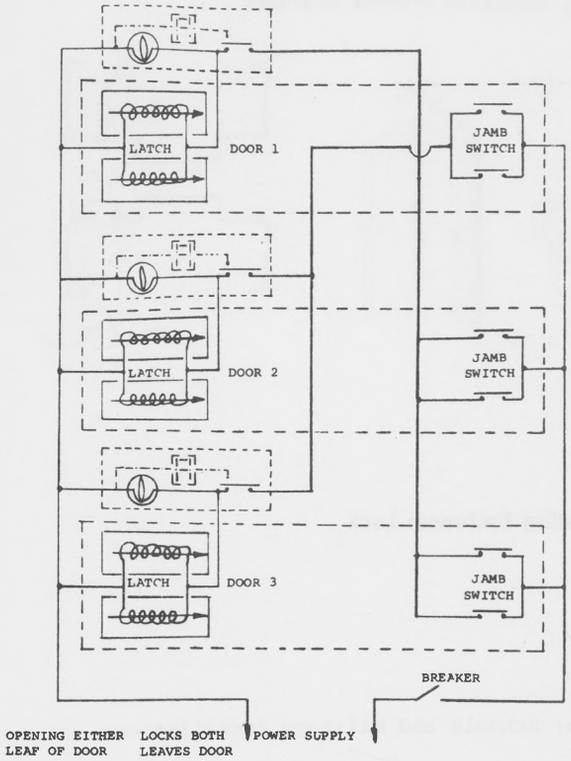
WIRING DIAGRAM

Automatic light or air trap lock

DIAGRAM NO. 1402 – 1412

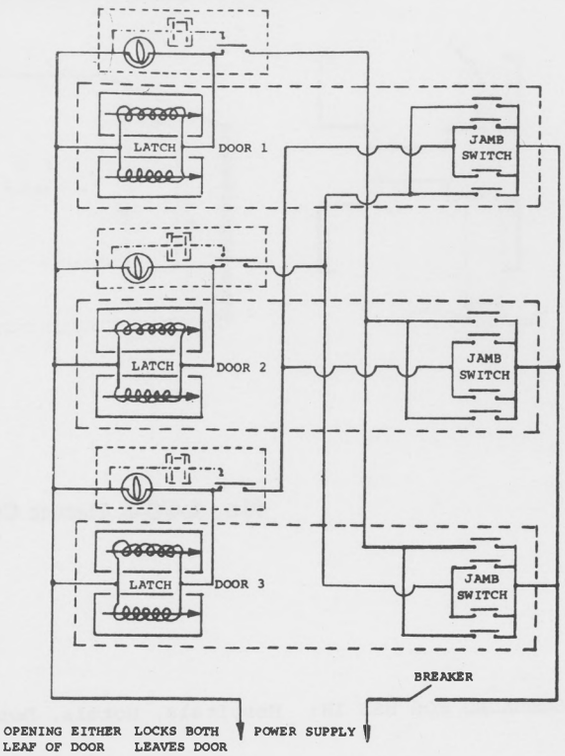
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3 PAIR OF DOORS VESTIBULE UNIT



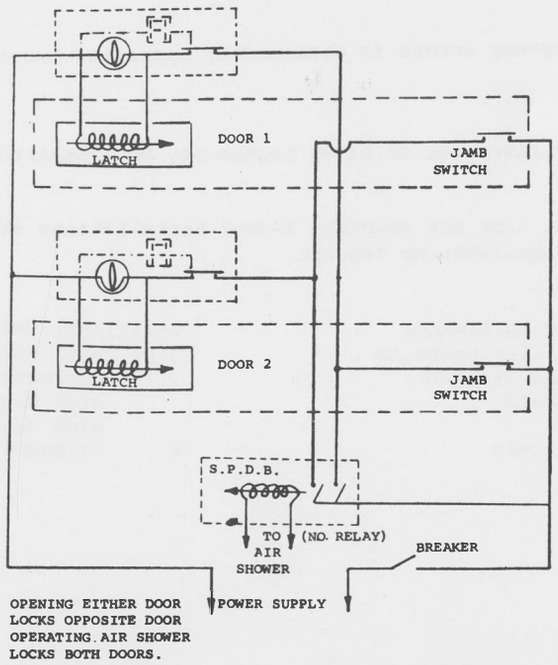
OPENING EITHER LEAF OF DOOR	LOCKS BOTH LEAVES DOOR
1	2 & 3
2	1
3	1

3 PAIR OF DOORS AUTOMATIC UNIT



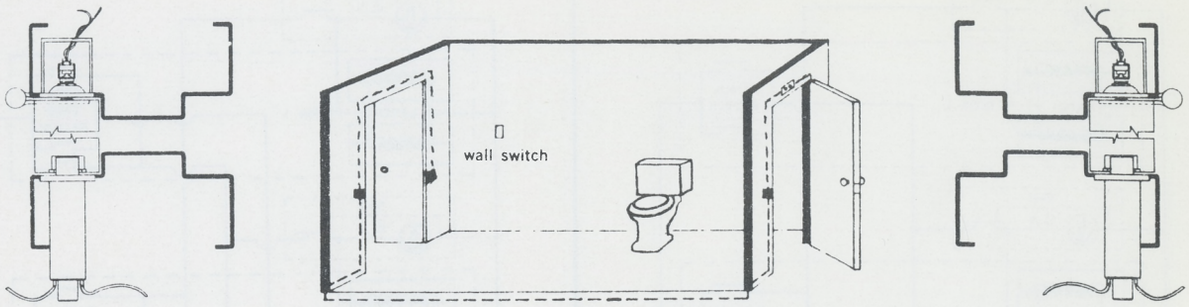
OPENING EITHER LEAF OF DOOR	LOCKS BOTH LEAVES DOOR
1	2 & 3
2	1 & 3
3	1 & 2

2 DOOR AUTOMATIC UNIT, FOR USE WITH AIR SHOWER



OPENING EITHER DOOR LOCKS OPPOSITE DOOR OPERATING. AIR SHOWER LOCKS BOTH DOORS.

Electric Communicating Bathroom Lock



No. 1404 Electric Communicating Bathroom Lock

RECOMMENDED FOR USE IN: Hospitals, Hotels, Dormitories, Schools and Military installations.

OPERATION: Upon entering bathroom occupant turns outer knob unlocking lockset. To lock bathroom doors occupant closes both doors if open, and operates the wall switch to locked position illuminating both pilot lights and locking both doors. Operating wall switch to unlocked position turns off both pilot lights and unlocks both doors. After leaving bathroom occupant presses push button in lockset which prevents anyone from adjoining rooms from entering occupants room.

EMERGENCY RELEASE: Emergency access is obtained by operating Emergency Switch located above each door.

For hospital use, an auxiliary set of Pilot Lights may be installed at the Nurses Station.

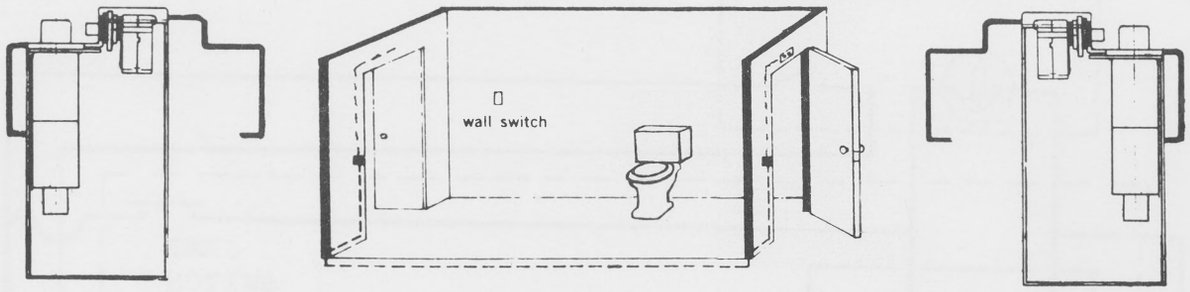
MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC voltage 24 or 115 volts AC
2 No. 1426 Latch Units and Strikes
2 No. 1453 Jamb Switch Units
1 No. 1461 Switch
2 No. 1463 Emergency Switches
2 No. 1480 Pilot Lights
1 No. 1491 Switch Plate
2 No. 1492 Cover Plates

Additional Hardware recommended for each unit
3 pr Ball Bearing Butt Hinges
2 Locksets, Challenger No. 920S. Install with Blank or Closed knob on Bathroom side of door.
6 Silencers

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Electric Communicating Bathroom Lock



No. 1414 Electric Communicating Bathroom Lock

RECOMMENDED FOR USE IN: Hospitals, Hotels, Dormitories, Schools and Military installations.

OPERATION: Upon entering bathroom occupant turns outer knob unlocking lockset. To lock bathroom doors occupant closes both doors if open, and operates the wall switch to locked position illuminating both pilot lights and locking both doors. Operating wall switch to unlocked position turns off both pilot lights and unlocks both doors. After leaving bathroom occupant presses push button in lockset which prevents anyone from adjoining rooms from entering occupants room.

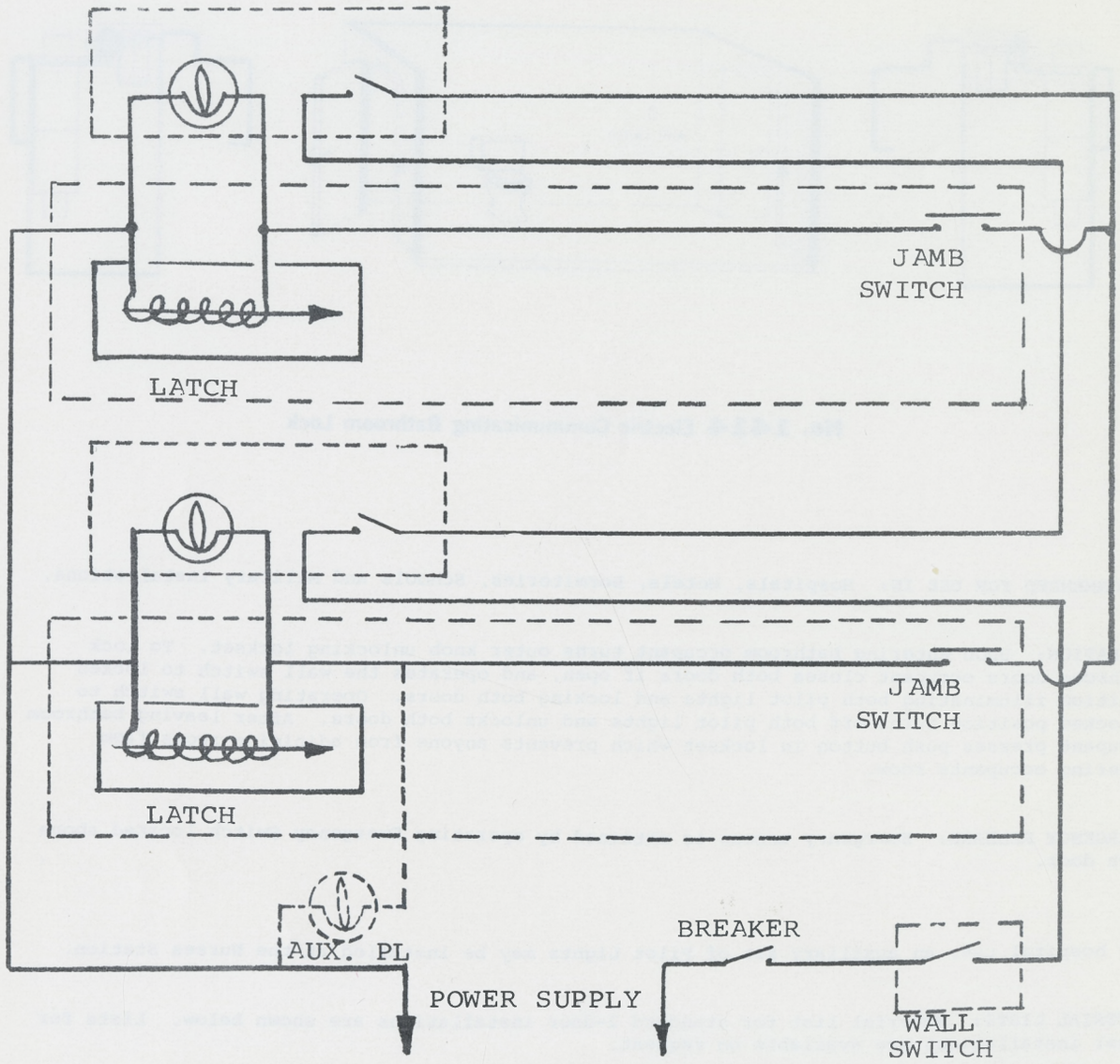
EMERGENCY RELEASE: Emergency access is obtained by operating Emergency Switch located above each door.

For hospital use, an auxiliary set of Pilot Lights may be installed at the Nurses Station.

MATERIAL LISTS: Material list for standard 2-door installations are shown below. Lists for other installations are available on request.

Each unit consists of the following:
Specify AC voltage 24 or 115 volts AC
2 No. 1426 Latch Units and Strikes
2 No. 1472 Combination Boxes and Cover Plates
2 No. 1453-1 Jamb Switches
1 No. 1461 Switch
2 No. 1463 Emergency Switches
2 No. 1480 Pilot Lights
1 No. 1491 Switch Plate
2 No. 1492 Cover Plates

Additional Hardware recommended for each unit
3 pr Ball Bearing Butt Hinges
2 Locksets, Challenger No. 920S. Install with Blank or Closed knob on Bathroom side of door.
6 Silencers

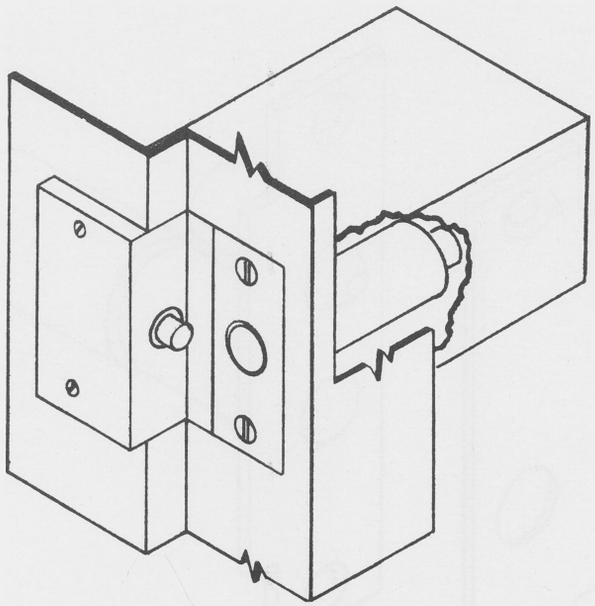


WIRING DIAGRAM

DIAGRAM NO. 1404 - 1414

Electric Communicating Bathroom Lock

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803



NO. 1418 SAFETY ELECTRIC LOCKING UNIT

NO. 1419 CONTINUOUS DUTY ELECTRIC LOCKING UNIT

RECOMMENDED FOR USE IN: X-Ray Treatment Rooms; Motion Picture, Radio, Television or Recording Studios; X-Ray Laboratories; Atomic Energy and Radio Active Operations; Dangerous Equipment Rooms; Painting or Sandblasting Booths; Money Counting Rooms; Signal or Cryptography Rooms.

OPERATION: Operation of equipment or separate switch projects bolt, locking the door. When equipment or switch is turned off, bolt is retracted, unlocking the door. Jamb switch prevents bolt from being projected unless door is in closed position.

EMERGENCY RELEASE: Emergency release and pilot light system is available to unlock door when emergency button is pushed, and consists of:

1 - 1464 Emergency Switch
1 - 1480 Pilot Light
1 - 1494 Cover Plate

An alarm can be sounded whenever the emergency button is pushed, if desired.

SPECIAL SWITCH: Jamb switch S-14-04 can be substituted for switch 1453-1, which, when installed with a relay can prevent the equipment from operating unless the door is in the closed position.

NO. 1418

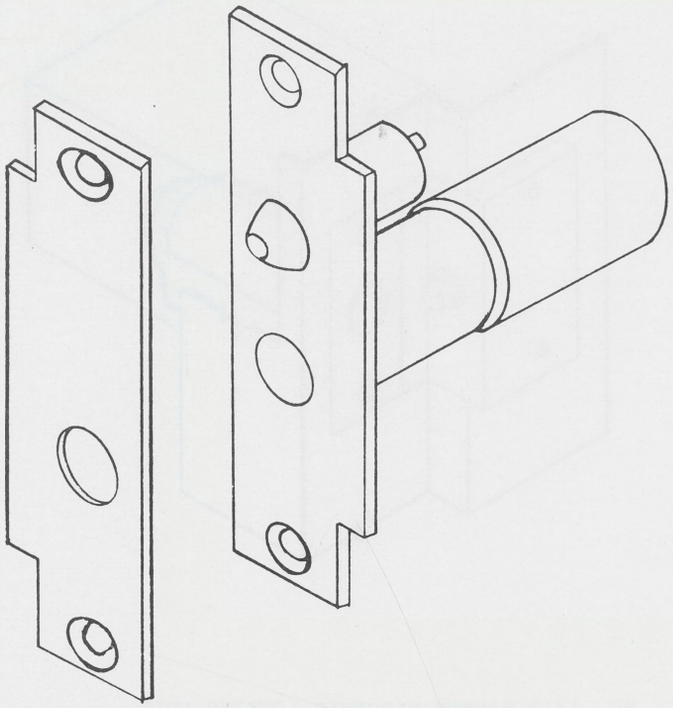
Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC

1 - 1426 Latch Unit and Strike
1 - 1453-1 Jamb Switch
1 - 1472 Combination Box and Cover Plate

NO. 1419

Each unit consists of the following:
Specify AC Voltage 24 or 115 Volts AC

1 - 1419-1 Latch Unit and Strike
1 - 1453-1 Jamb Switch
1 - 1472 Combination Box
1 - 1419C Cover Plate



1421-24 Pass Box Interlock
24 Volts .50 AMPS (Equipped with Diodes to eliminate AC hum)

Recommended for use in pass boxes with swinging doors or vertical sliding windows. Can also be used with stock hollow metal frames to provide air or light trap interlock operation.

Operation:	Bolt Projected when energized. Normally unlocked.
Equipped with:	Normally closed ("off" when depressed) switch.
Face:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8, (fits ASA cutout, 1-3/4" doors).
Bolt:	Nylon 5/8" diameter with 1/2" throw.
Case:	Brass and steel, zinc plated 1-1/8" diameter x 4-1/4" long.
Strike:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8,

1424-24 Safety Electric Locking Unit
24 Volts .50 AMPS (Equipped with Diodes to eliminate AC hum)

Recommended for stock hollow metal frames or otner applications where No. 1414 electric communicating bathroom unit or No. 1418 safety electric locking unit will not suit the details.

Operation:	Bolt projected when energized. Normally unlocked
Equipped with:	Normally open ("on" when depressed) switch.
Face:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8, (fits ASA cutout, 1-3/4" doors).
Bolt:	Nylon 5/8" diameter with 1/2" throw.
Case:	Brass and steel, zinc plated 1-1/8" diameter x 4-1/4" long.
Strike:	1-1/4 x 4-7/8, lip 3-3/8 x 7/8,

1421-24 and 1424-24 units can be furnished with 1410 solenoid, case 1" diameter x 3-1/2" long (NO DIODES) if desired. Specify by catalog 1421-24 x 1410 solenoid or 1424-24 x 1410 solenoid.

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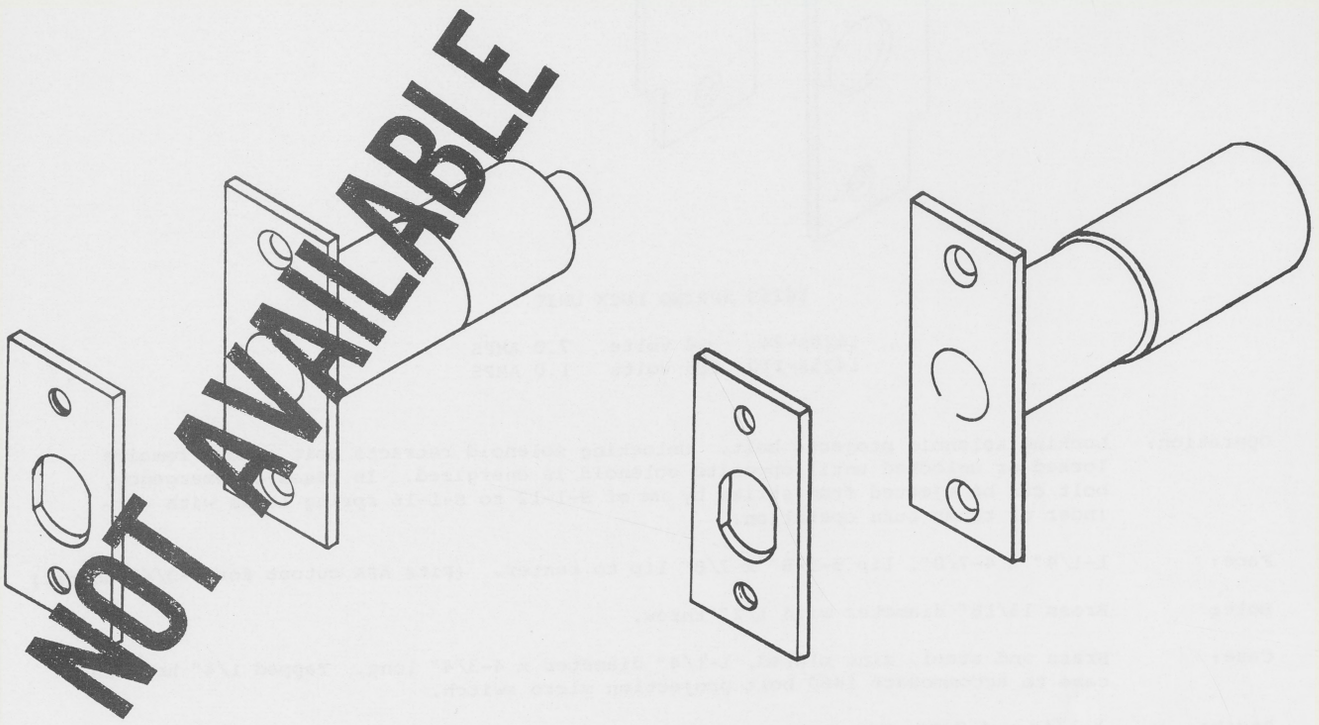
ELECTRIC LATCH UNITS

Challenger has become the leader in solenoid operated electric locks for use in Air or Light Traps, X-Ray Areas, Clean Rooms, Rubbish and Laundry Chutes, Defense Facilities, Banks and Hospitals.

All units are equipped with 12" leads of No. 18-105° C wire.

Lock units 1410-110, 1425-110 and 1426-110 are listed by Underwriters' Laboratories under Guide 540 I0, file E30801, when enclosed in a mounting box.

Engineering assistance is available for specialized applications.



1410 STANDARD LATCH UNIT

1410-24, 24 Volts 2.0 AMPS
1410-110, 115 Volts 0.5 AMPS

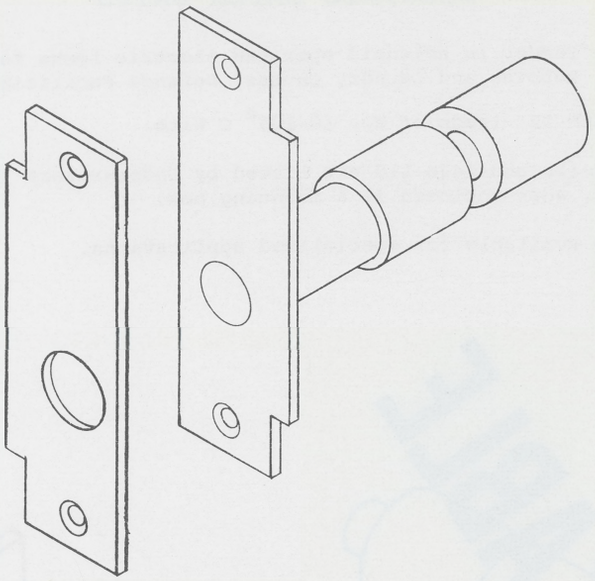
Operation:	Bolt projected when energized. Normally unlocked.
Face:	Brass 1-1/4" x 2-3/4
Bolt:	Nylon 5/8" dia. with 1/2" throw
Case:	Brass and steel zinc plated 1" dia. x 3-1/2" long
Strike:	1-1/8" x 2-1/4"

1426 SILENT LATCH UNIT WITH DIODES TO ELIMINATE AC HUM

1426-24, 24 Volts .50 AMPS
1410-110, 115 Volts .15 AMPS

Operation:	Bolt projected when energized. Normally unlocked.
Face:	1-1/4 x 2-3/4
Bolt:	Nylon 5/8" diameter with 1/2" throw
Case:	Brass and steel zinc plated 1-1/8" dia. x 4-1/4" long
Strike:	1-1/8" x 2-1/4"

Replacement solenoids are available as catalog numbers RS 1410-24, RS 1410-110, RS 1425-24, RS 1425-110, RS 1426-24, RS 1426-110, or we will rewind customers' solenoids.



1425S SPRING LOCK UNIT

1425S-24, 24 volts 7.0 AMPS
1425S-110, 115 volts 1.0 AMPS

Operation: Locking solenoid projects bolt. Unlocking solenoid retracts bolt. Bolt remains locked or unlocked until opposite solenoid is energized. In cases of emergency, bolt can be ejected from strike by use of S-1-12 to S-1-16 spring locks with cylinder or thumb turn operation.

Face: 1-1/4" x 4-7/8", lip 3-3/8" x 7/8" lip to center. (Fits ASA cutout for 1-3/4" doors.)

Bolt: Brass 13/16" diameter with 1/2" throw.

Case: Brass and steel, zinc plated, 1-1/4" diameter x 4-3/4" long. Tapped 1/4" hole in case to accommodate 1460 bolt projection micro switch.

Strike: 1-1/4" x 4-7/8", lip 3-3/8" x 7/8" lip to center.

OPTIONAL FEATURES

Indicator Switch: 1460 bolt projection micro switch available for attaching to case to illuminate pilot light when bolt is projected, or retracted, or both.

Jamb Switch: 1453 jamb switch assembly recommended to prevent lock from being operated unless door is closed. Can also illuminate pilot light to indicate if door is closed.

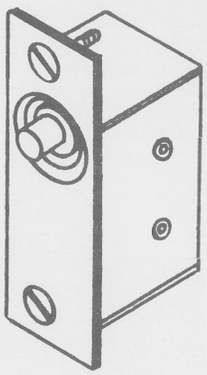
Operating Switches: 1465 single pole momentary contact (normally open) switches recommended. Use with 1480-24 or 1480-110 pilot lights. Mounted in cover plates 1495-12, 1495-12N, 1495-13, and 1495-22. Special plates to order.

If operation by key is desired, No. 1469-M.O. key switch is recommended. Will accommodate any standard 1-1/8" mortise cylinder for keying into Building Master-key systems.

Replacement solenoids are available as catalog numbers RS 1410-24, RS 1410-110, RS 1425-24, RS 1425-110, RS1426-24, RS1426-110, or we will rewind customer's solenoid.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

JAMB SWITCH ASSEMBLIES AND SWITCHES



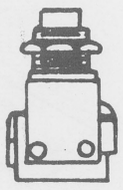
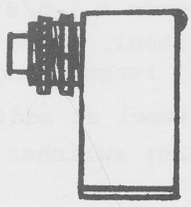
HINGE JAMB MOUNTING

BOX: 2-11/16 X 1-3/8 X 1-1/2" DEEP

COVER: 4 X 1-1/2"

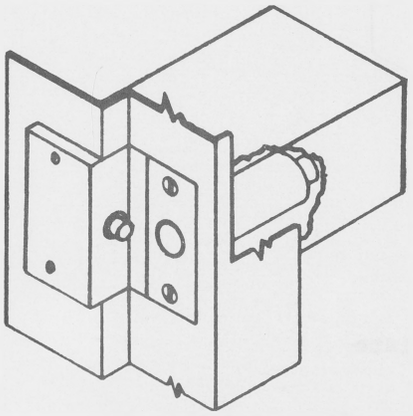
ELECTRICAL RATING:

5 AMPS – 125 VOLTS

COMPLETE SWITCH ASSEMBLY		SWITCH ONLY	CIRCUIT W/LEADS	SPARE CIRCUIT NO LEADS	USED IN UNIT
1452		1452–1	1–N.C.	1–N.O.	1401–1402
1452–3DA		1452–3	2–N.C.	2–N.O.	1401–3DA 1402–3DA
1452–4DA		1452–4	3–N.C.	3–N.O.	1401–4DA 1402–4DA
1453		1453–1	1–N.O.		1404

ALL SWITCHES SUPPLIED WITH 12" 105°C LEADS, EXCEPT 1453–1 AND 1462 WHICH HAVE 6" 90°C LEADS.

SWITCH CIRCUIT ARRANGEMENT: N.C. NORMALLY CLOSED "ON" WHEN DOOR IS OPEN
N.O. NORMALLY OPEN "OFF" WHEN DOOR IS OPEN.



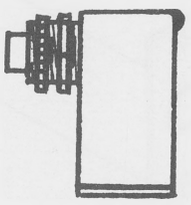
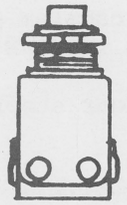
LOCK JAMB MOUNTING

BOX: CAT. NO. 1472

ALSO USED IN SURFACE MOUNTED BOX 1471

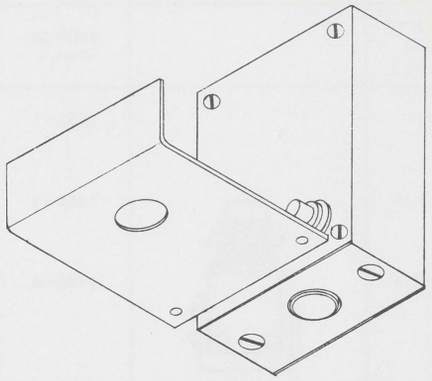
ELECTRICAL RATING:

5 AMPS – 125 VOLTS

		1453–1	1–N.O.		1414–1418
		1462	1–N.C.		1411–1412
		1462–3	2–N.C.	2–N.O.	1411–3DA 1412–3DA

LATCH AND SWITCH BOXES

(Shown with latch and switch, not included)



No. 1471 Surface Applied Case and Strike

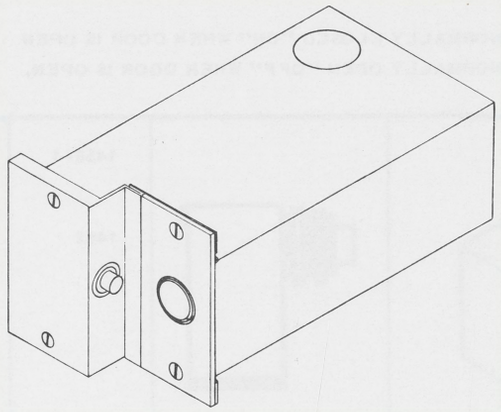
For wood or metal doors with flush or offset trim, Maximum reveal 5/8"

Case: 16 Ga. cold rolled steel, prime coat
5-1/8" high x 4-1/8" wide x 1-5/8" projection

Strike: 16 Ga. cold rolled steel, prime coat
4-1/8" wide x 3-1/4" length, angle lip 1-7/16"

Also available in stainless steel at additional cost

Accommodates latch units #1426; switches #1453-1, #1462 & #1462-36



No. 1472 Combination Box and Cover Plate

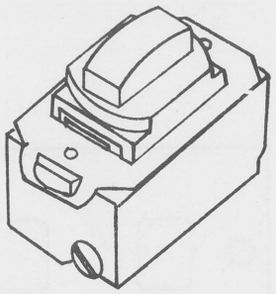
Case: 16 Ga. cold rolled steel, cadmium plated
1-7/8" high x 3-1/16" wide x 5-1/8" long from face of latch

Face & Cover: 2-3/4" high, for door stops 1/2" to 3/4" thick, 1-1/2" minimum width

Accommodates latch units #1426; switches #1453-1, #1462 and #1462-3

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

SWITCHES
(FURNISHED WITH SCREW TERMINALS)



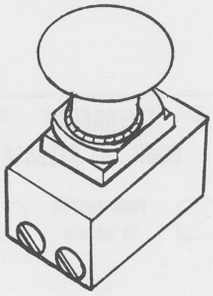
MOMENTARY CONTACT SWITCHES
Single Pole
1465 (Normally Open)
1466 (Normally Closed)
Rating: 15 AMPS - 115 Volts AC



SILENT MERCURY BATHROOM SWITCH
Single Pole
1461-24, 24 Volts AC
1461-110, 115 Volts AC, with handle illuminated when in "OFF" position
Rating: 15 AMPS - 115 Volts AC

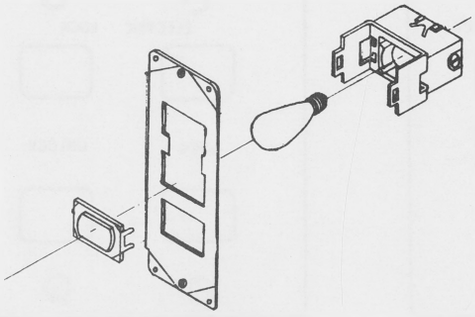


1463 EMERGENCY SWITCH
Single Pole, Maintained Contact
Rating: 10 AMPS - 115 Volts AC

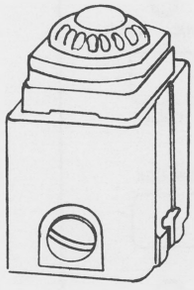


1464 EMERGENCY SWITCH
Two Circuit. Has large 1" red plastic button. Used for interlock emergency release and auxiliary alarm systems
Rating: 6 AMPS - 115 Volts AC

PILOT LIGHTS

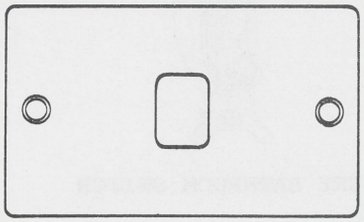


1480-24 PILOT LIGHT
S6 Bulb, 6 Watts, 30 Volts
Red Lens, Amber or Green Lens When Specified

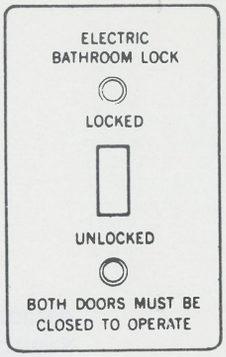


1480-110 PILOT LIGHT
Red Neon Bulb
1/25 Watt - 115 Volts

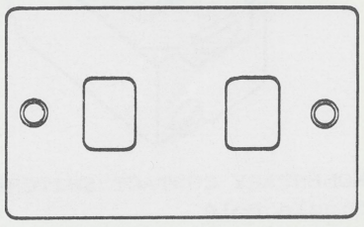
SWITCH AND COVER PLATES
DULL STAINLESS STEEL, TYPE 302 (US 32D) FINISH, EXCEPT AS NOTED



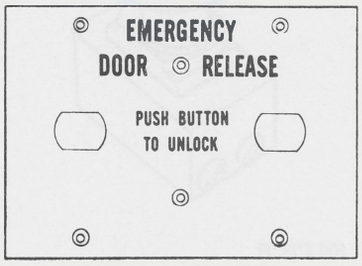
1490 SINGLE COVER PLATE



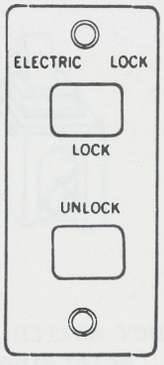
1491 BATHROOM SWITCH PLATE
(Used With 1461 Switch)



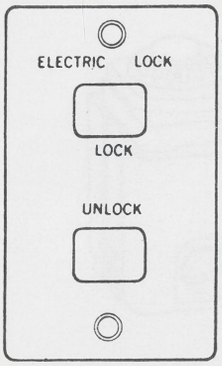
1492 DOUBLE COVER PLATE



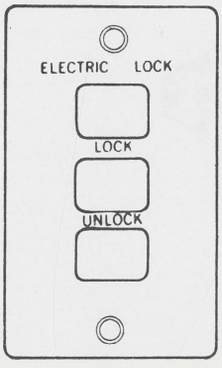
1494 EMERGENCY COVER PLATE
(Red With White Letters)



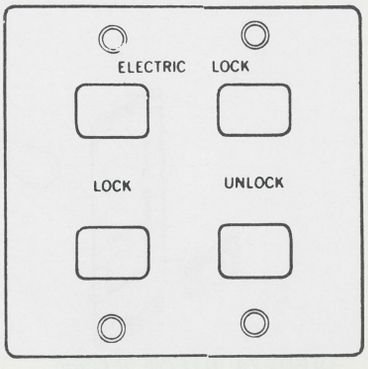
1495-12N NARROW 1-3/4" COVER PLATE



1495-12 DOUBLE COVER PLATE



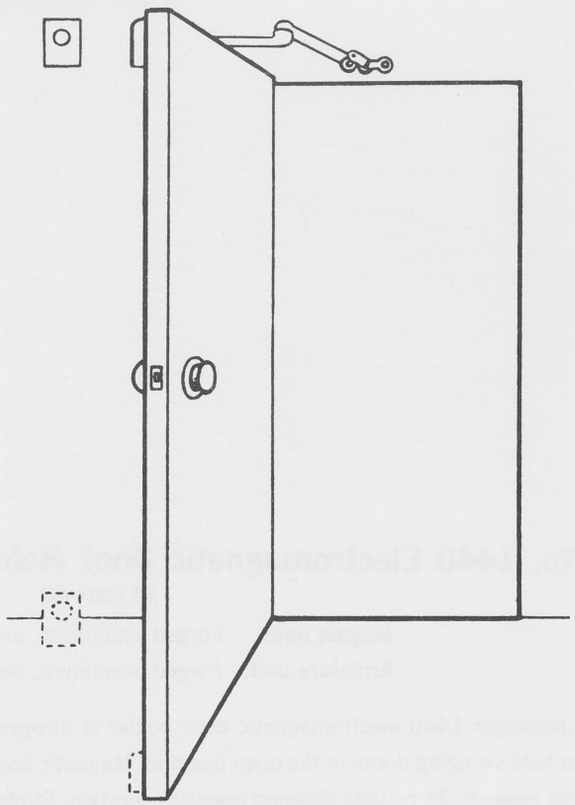
1495-13 TRIPLE COVER PLATE



1495-22 COVER PLATE

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

ELECTROMAGNETIC DOOR HOLDERS



Electromagnetic Door Holders

for

- **Fire Doors**
- **Security Control**
- **Private Offices**

Fire Doors

Allows swinging, sliding or vertical lift fire doors in buildings equipped with approved smoke or fire detection devices to close up to 4 times faster than with fusible link door closers.

Security Control

Closer equipped doors with fixed knob locks can be closed by remote control to achieve greater personnel control.

Private Offices

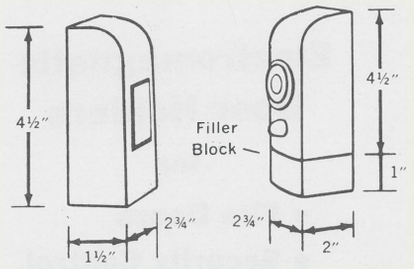
Instant privacy can be obtained by merely pushing a button on your desk, allowing the closer equipped door to close for private conversations or telephone calls.

Exclusive Features:

- **STREAMLINED APPEARANCE**
  Slim, streamlined cases attach with "tamper proof" screws preventing ambitious children in schools from removing the units, and eliminates the problem of riding or hanging on the door unit.
- **SILENT OPERATION**
  A special integral unit converts 24 volt AC current to quiet, steady direct current assuring noiseless operation; a must in hospitals and other institutions.
- **LOW POWER CONSUMPTION**
  Each unit draws only 3 watts of power. (20 units consume the energy of one 60 watt light bulb.)
- **FAIL-SAFE**
  Doors close automatically if power fails.

ELECTROMAGNETIC DOOR HOLDERS

For Swinging Doors



ARMATURE UNIT MAGNET UNIT

Weight 6 lbs.

No. 1440 Electromagnetic Door Holders

24 volts AC 125 amps maximum

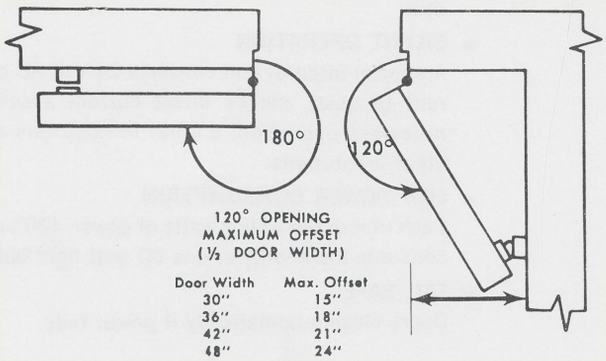
Magnet unit: Forged aluminum, anodized 4½" high, 2¾" wide, 2" projection.

Armature unit: Forged aluminum, anodized 4½" high, 2¾" wide, 1½" projection.

Challenger 1440 electromagnetic door holder is designed to hold swinging doors in the open position. Magnetic holding power is 24 pounds allowing manual operation. Rubber bumper allows for use as a door stop when the magnet is not energized. The doors will be released by interruption of power allowing the doors to close them automatically by the door closers.

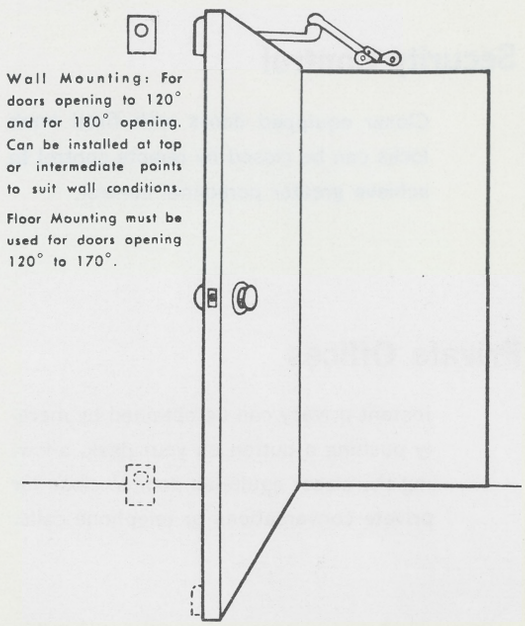
The magnet unit can be wall-mounted on the surface, fastened to a standard single outlet box (3$^{9}/_{32}$" screw spacing), or attached to ½" conduit. It can also be floor-mounted with the use of 1440-18 filler block on ¾" rigid conduit.

PLAN VIEWS



120° OPENING
MAXIMUM OFFSET
(½ DOOR WIDTH)

Door Width	Max. Offset
30"	15"
36"	18"
42"	21"
48"	24"



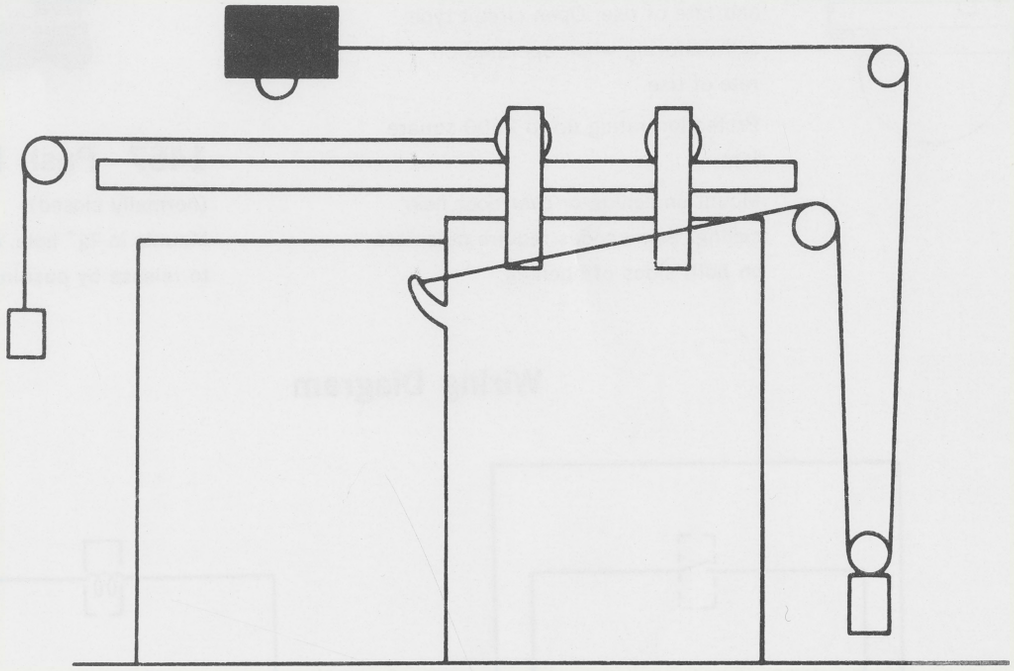
Wall Mounting: For doors opening to 120° and for 180° opening. Can be installed at top or intermediate points to suit wall conditions.

Floor Mounting must be used for doors opening 120° to 170°.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

ELECTROMAGNETIC DOOR HOLDERS

For Sliding and Rolling Doors and Windows



Surface Applied Electromagnetic Sliding Door Holder and Pre-wired Power Packs

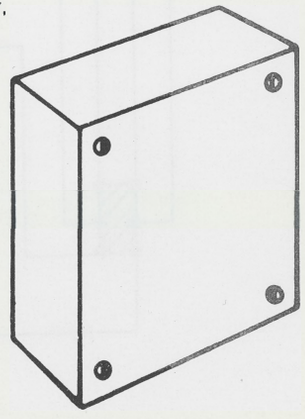
1441 115 volts AC input, sliding door holder 24 pound holding force.

1445-24 115 volts AC input, power pack. Contains 24 volt, 25 watt transformer, relay and terminal block.

1445-524 115 volts AC input, power pack 1445-24, with 1445-501 detector.

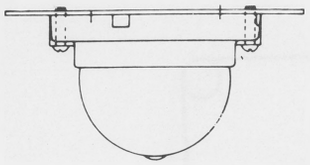
Challenger 1441 electromagnetic sliding door holder is designed to hold sliding or rolling doors or windows in the open position. Manual operation of fire doors is not restricted as the door holder merely replaces the standard fusible link. 1441 unit includes 25 watt transformer, relay and terminal block.

1445-24 pre-wired power pack is for use with No. 1440 electromagnetic door holder. It includes a 25 watt transformer and a normally closed relay for use with 1445-501 detectors. A terminal block is provided so that door holders or detectors may merely be plugged into the unit.



Case: Flush screw cover, prime coated steel, 6"x6"x3½"

ELECTROMAGNETIC DOOR HOLDERS

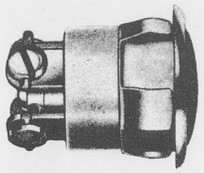


1445-501 Detector

Combination fixed temperature (136°F) and rate of rise. Open circuit type, self-restoring when operated on rate of rise.

Protection rating up to 2500 square feet.

Mount on ceiling or over door near ceiling. Some codes require detectors on both sides of opening.

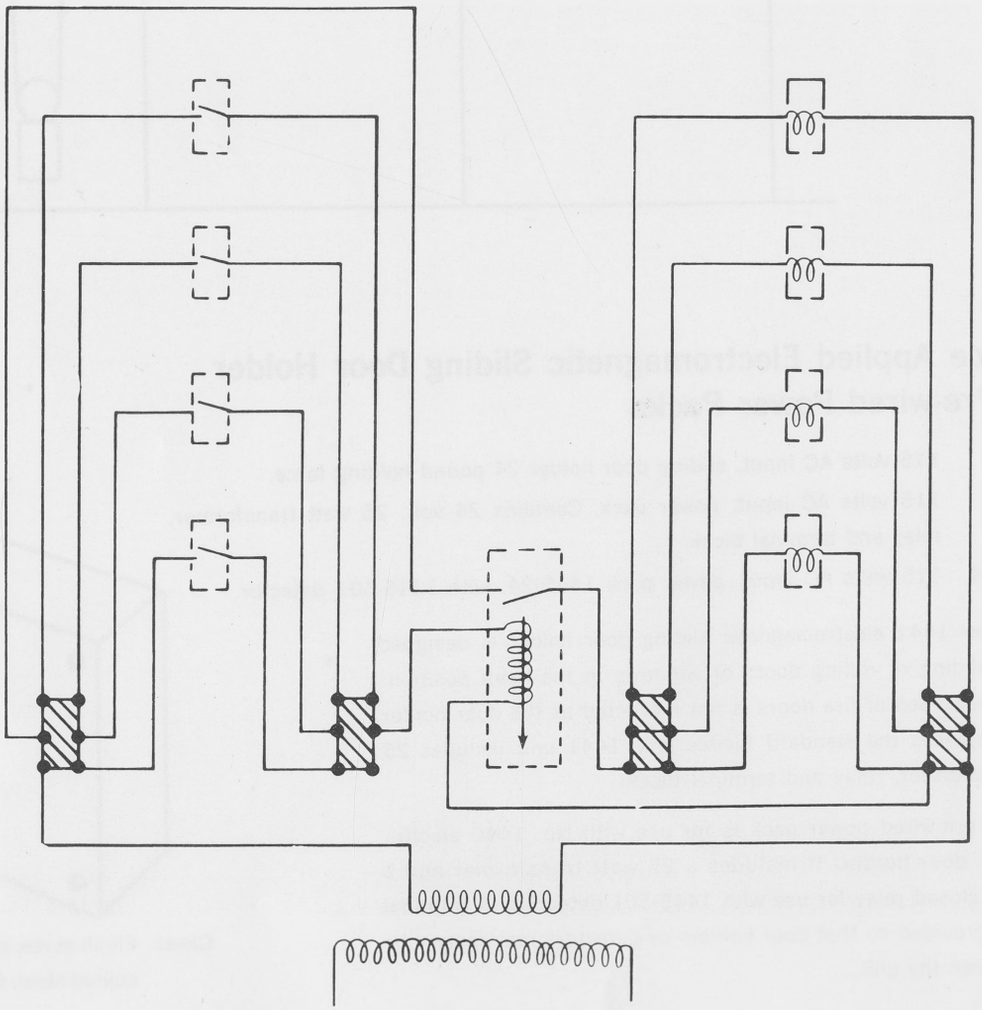


1467 Push Button Switch

(normally closed)

Mounts in ¾" hole. Allows door holders to release by pushing button.

Wiring Diagram



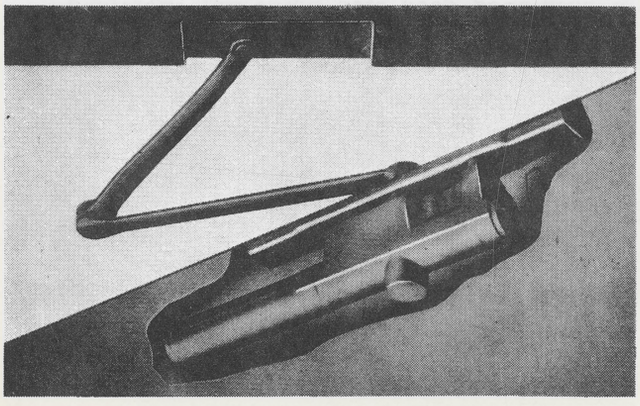
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIV.
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

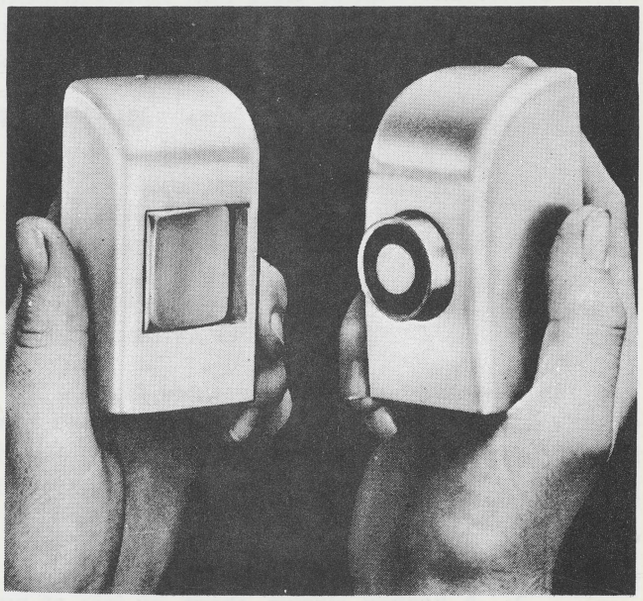
NOW, CLOSE FIRE DOORS AHEAD OF HEAT AND SMOKE WITH NEW CHALLENGER ELECTRO-CLOSER DEVICE

WORKS OFF REMOTE SENSING SYSTEMS ADDS SAFETY AND SECURITY

A wisp of smoke; abnormal temperature rise; the first movement of water in an overhead sprinkler, and *instantly* all open fire doors are released to swing securely closed far in advance of danger. Precious time is gained. Deadly smoke is shut out. Now, hospitals, schools and other institutions can have a dependable protective device to save lives that otherwise might be lost.

REMOTE ACTUATION. The new Challenger fire door hold-open is electro-magnetic. Unobtrusive elements are installed on door and wall. When the door is swung open, these two sections meet, and the door is held open by an electromagnet. The wall unit is connected to the alarm system which can be any approved detection system that utilizes electrical current. The actual sensing units can be placed at the door itself, or at any remote location desired for maximum protection. Any number of doors can be controlled from a single sensor. Positive closing action is provided by Challenger concealed, narrow projection or standard compact closers. The units are also available for use on sliding and vertical lift fire doors.





PRIVACY AND SECURITY. The remote operation feature offers many additional applications for private offices and security control. Doors held open by the Challenger electro-magnetic system can be released by merely pressing a button at the desk or at any convenient location to shut out noise and visitors. Installation is simple and inexpensive.

GET COMPLETE INFORMATION

CHALLENGER®

CHALLENGER LOCK CO., 2349 West La Palma Avenue, Anaheim, California

CHALLENGER®

CHALLENGER NO. 1440 ELECTRO-MAGNETIC DOOR STOP AND HOLDER

Especially designed for interior and exterior fire doors, smoke doors, and other doors which are desired to be closed by remote control.

The standard model Challenger Electro-Magnetic Door Stop and Holder No. 1440 consists of 2 cast bronze units. The wall or floor unit which attaches to any standard single receptacle wall box or conduit contains a special continuous duty silent electro-magnet. The door unit contains a self-aligning contact plate which allows for up to 5 degrees of vertical and 30 degrees of horizontal adjustment.

DIMENSIONS OF UNITS

	WALL OR FLOOR UNIT	DOOR UNIT
HEIGHT	4½"	4½"
WIDTH	2¼"	2¼"
PROJECTION	2"	1½"

The fail-safe magnet which operates from a 24 Volt AC power supply has a low power consumption of only 1.2 watts and a heat rise of only 25 degrees F. A special device converts the alternating current inside the magnet housing to direct current assuring noiseless and steady holding power. A pull of approximately 30 pounds will release the door manually.

The door holder may also be released by:

1. A broken circuit, short, or loss of power as normally associated with fire, lightning, or earthquake.
2. A signal from an Underwriters' listed fire or smoke-detection device.
3. A push button located at a desk or remote location.

The Electro-Magnetic Door Stop and Holder provides a cushioned door stop when not energized.

Floor and flush mounted models are also available for institutional and industrial swinging and sliding doors.

CHALLENGER LOCK CO., 2349 West La Palma Avenue, Anaheim, California

MONO-LOCK

YALE & TOWNE

CHALLENGER

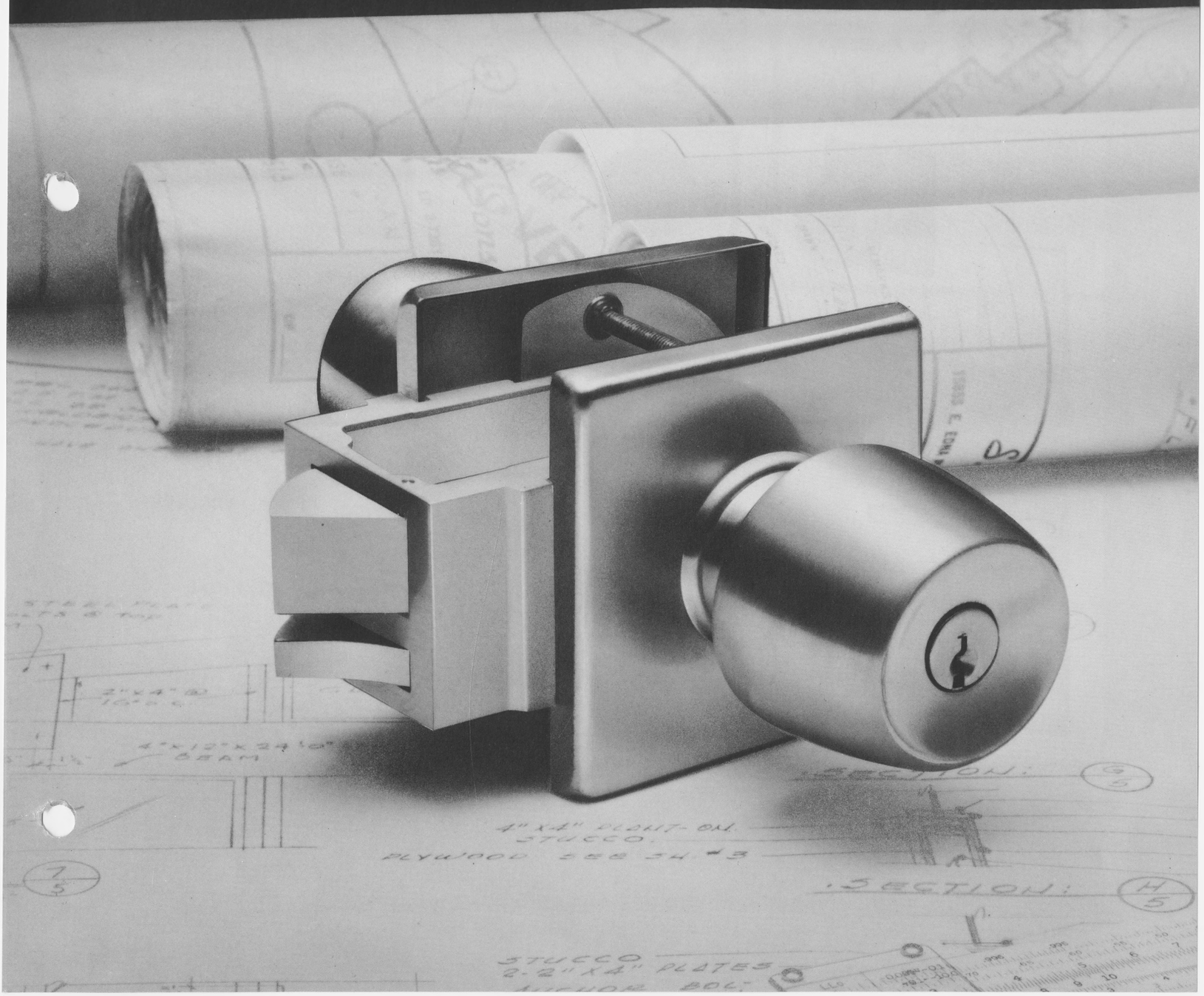
HEAVY DUTY

1600 SERIES

The **ultimate** in a lock for commercial, institutional, school buildings and fine residences that insist on locking quality.

Rugged: Heavy one-piece frame with carefully selected quality materials, precision working mechanism, and concealed screws assure maximum security and durability. **Handsome:** Strong, secure quality is instantly apparent in any MONO-LOCK installation. **Easy installation:** All functions are in standard size case for easy interchangeability. Pin tumbler cylinders offer wide range of keying convenience and control, and can be keyed to existing Challenger master keying systems.

The MONO-LOCK is one more outstanding product in the full Challenger line.



77

POSSIBLE DESIGN COMBINATIONS

Extremely wide range of interchangeable escutcheons and knobs in virtually any finish provides almost unlimited trim opportunities for the design conscious.



YALE & TOWNE

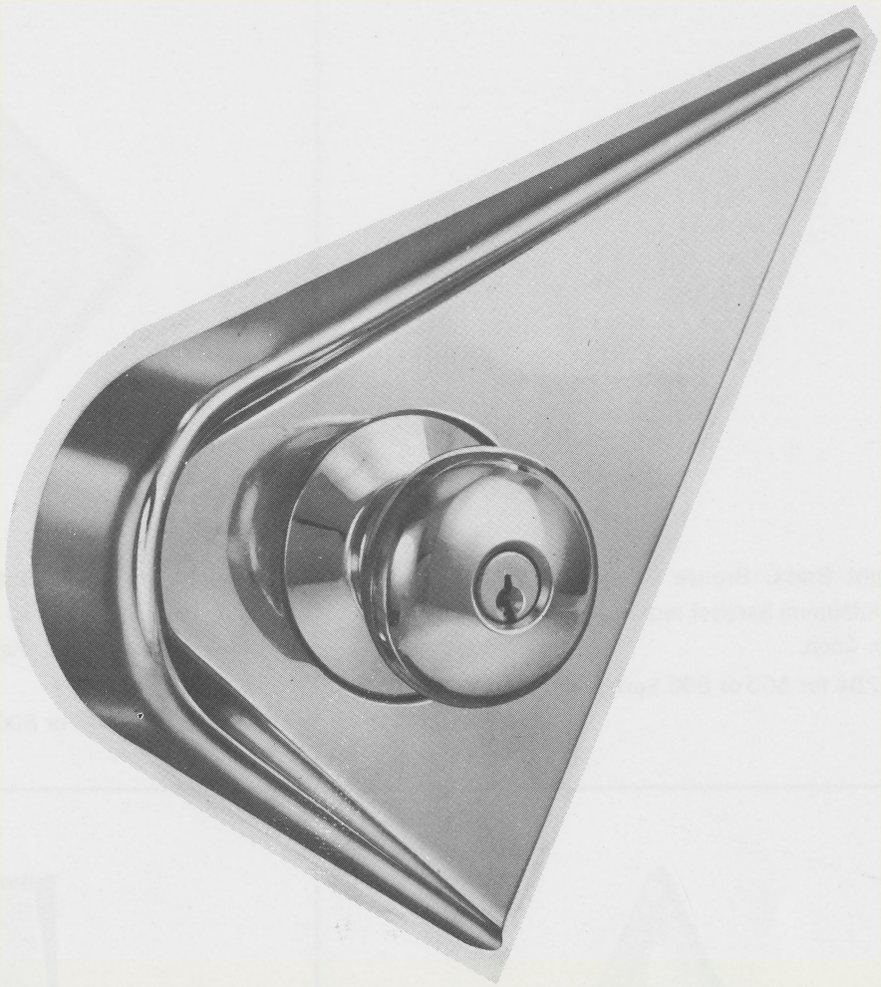
CHALLENGER LOCK AND HARDWARE DIV.

2349 W. LA PALMA AVE., ANAHEIM, CALIF. 714 PR 4-1044

CHALLENGER®

1700 SERIES

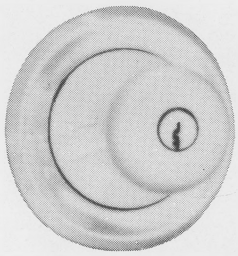
Decorative Escutcheons



Challenger offers an elaborate array of outstanding escutcheons to provide a wide choice of lock and trim. Here are some of the most popular. Their distinctive designs, smart styling and tone of good taste form a fitting background for the Challenger lock selected.

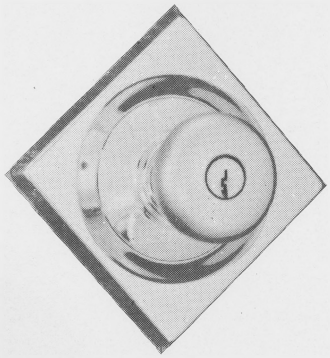
Challenger escutcheons are available in many metal finishes.

1700 Series DECORATIVE ESCUTCHEONS



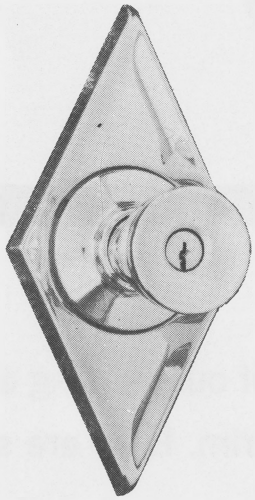
Wrought Brass, Bronze or Aluminum. 3¾" diam. 2⅜" minimum backset required. Pictured with Venus design knob.

No. 1704 for 500 or 800 Series



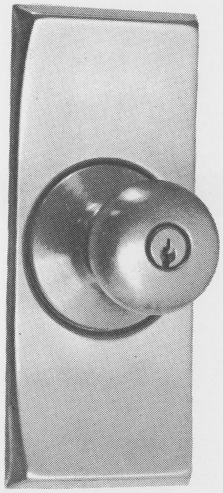
Wrought Brass or Bronze. 3¾" square. 2⅜" minimum backset required when mounted square. 5" when mounted as a diamond. Pictured with Venus knob.

No. 1714 for 500 or 800 Series



Wrought Brass, Bronze or Aluminum. 3½" x 7½". 2⅜" minimum backset required when mounted vertically. 5" when mounted horizontally. Pictured with Holiday design knob.

No. 1716 for 500 or 800 Series



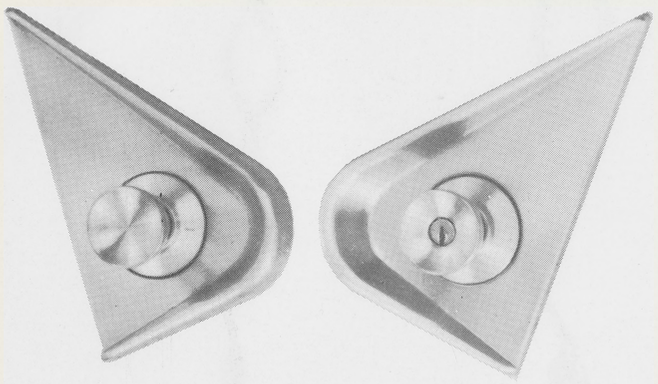
Wrought Brass or Bronze. 3" x 7¼". 2⅜" minimum backset required when mounted vertically. 5" when mounted horizontally. Pictured with Venus design knob.

No. 1713 for 500 or 800 Series

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Specify Catalog Number and Finish

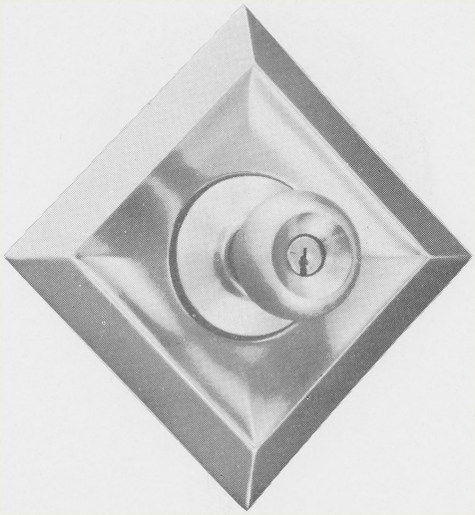
DECORATIVE ESCUTCHEONS **1700 Series**



LEFT HAND RIGHT HAND

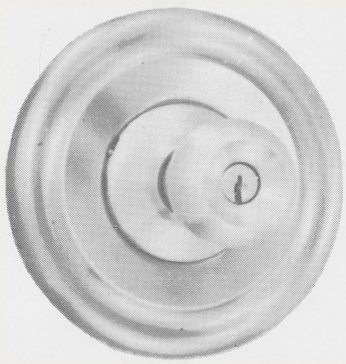
Wrought Brass or Bronze. 6"x9". 5" minimum backset required. Pictured with Holiday design knobs.

No. 1702, R or L (state hand) for 500 or 800 Series
No. 17029, R or L (state hand) for 900 Series



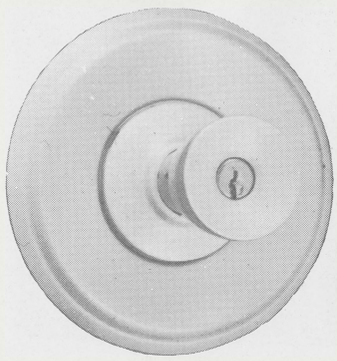
Wrought Brass, Bronze, Aluminum. 5½" square, 5" minimum backset required. Pictured with Concave design knob.

No. 1711 for 500 or 800 Series
No. 17119 for 900 Series



Wrought Brass, Bronze or Aluminum. 5½" diam. 5" minimum backset required. Pictured with Concave design knob.

No. 1730 for 500 or 800 Series
No. 17309 for 900 Series



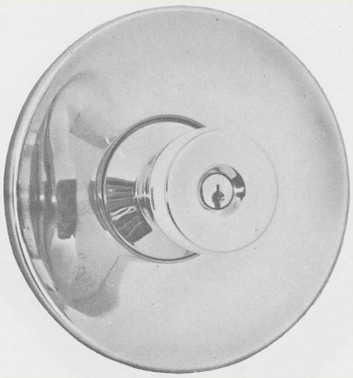
Wrought Brass, Bronze or Aluminum. 5½" diam. 5" minimum backset required. Pictured with Holiday design knob.

No. 1750 for 500 or 800 Series
No. 17509 for 900 Series

Specify Catalog Number and Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

1700 Series DECORATIVE ESCUTCHEONS



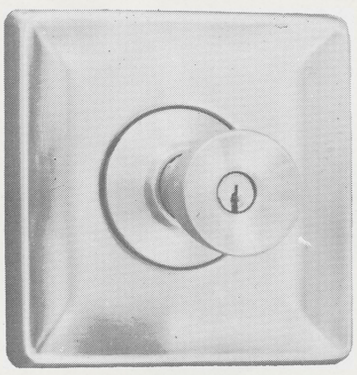
No. 1701 for 500 or 800 Series. **No. 17019** for 900 Series.
Wrought Brass, Bronze or Aluminum 6⅝" diameter.
5" minimum backset required.



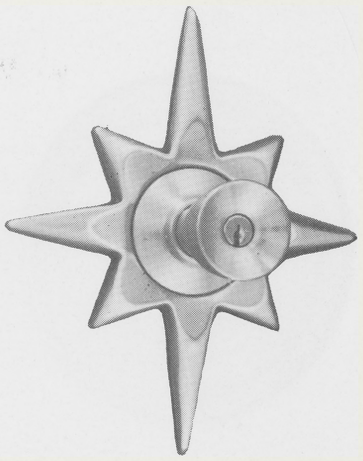
Cast Brass, Bronze or Aluminum.
3¼" x 12½".
2⅜" minimum backset required.
No. 1759 for 500 or 800 Series



Cast Brass, Bronze or Aluminum.
3¼" x 14½".
2⅜" minimum backset required.
No. 1758 for 500 or 800 Series



Wrought Brass, Bronze or Aluminum. 5½" square.
5" minimum backset required. Pictured with Holiday design knob.
No. 1715 for 500 or 800 Series
No. 17159 for 900 Series



Wrought Brass or Bronze. 7⅜" x 9". 5" minimum backset required. Pictured with Holiday design knob.
No. 1709 for 500 or 800 Series

Specify Catalog Number and Finish

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

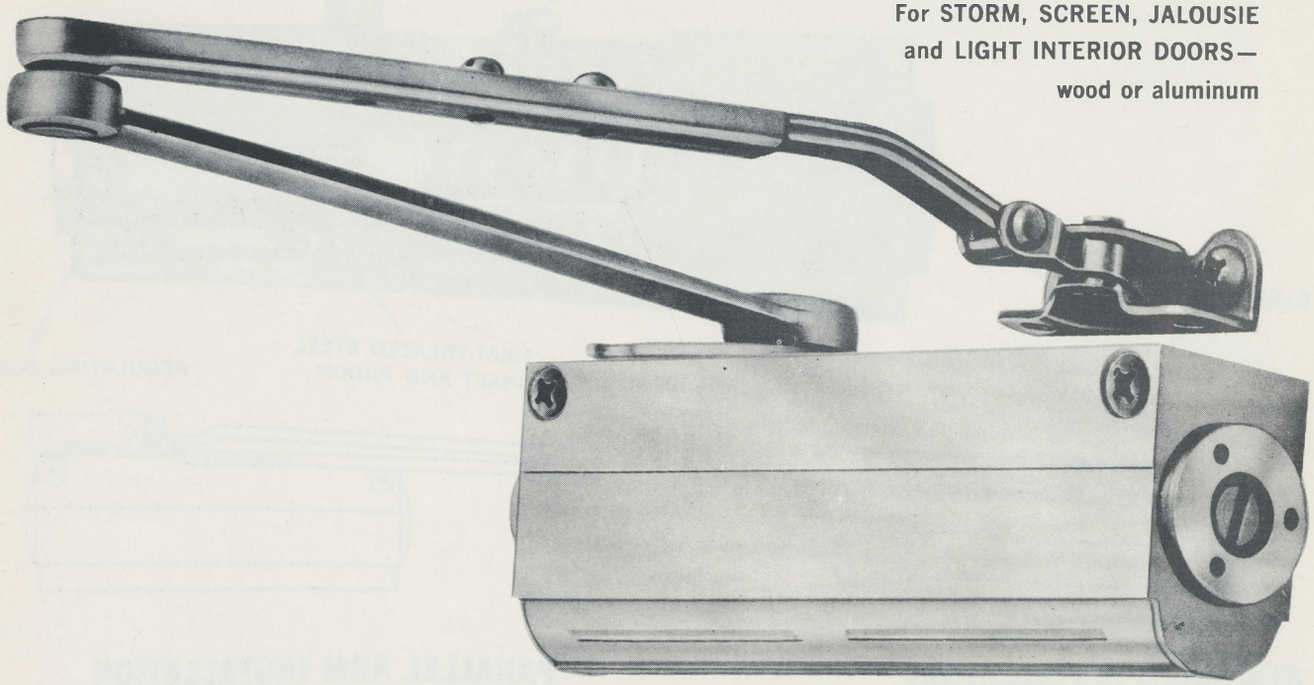
CHALLENGER®

Model 2130

Slim-Stile "Jr"

HYDRAULIC DOOR CLOSER

For STORM, SCREEN, JALOUSIE and LIGHT INTERIOR DOORS— wood or aluminum



FEATURES:

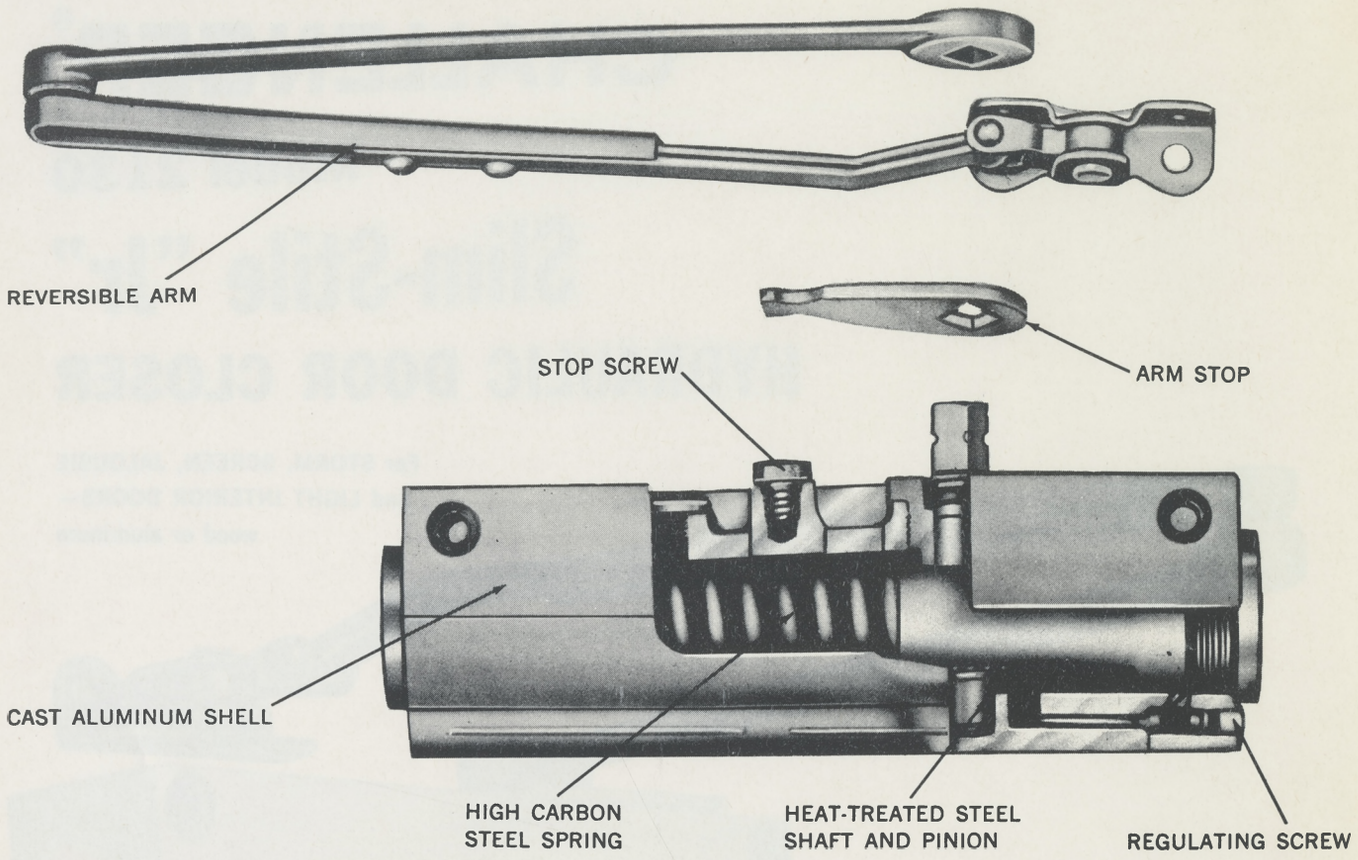
- Liquid type. Non-freezing, non-gumming, permanent lubricating hydraulic fluid.
- Rack and pinion mechanism. Positive checking action. 100° opening.
- Non-corrosive aluminum case. High grade steel compression spring.
- One regulating screw for simple adjustment of closing speed.
- Universal. Use on either right or left hand doors. Standard or parallel arm application.
- Extremely rugged and trouble-free.
- Easily installed.

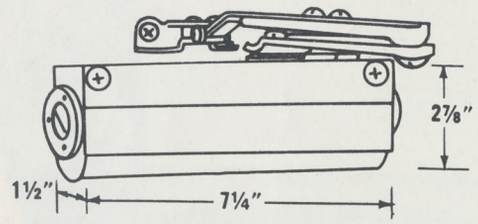
MEETS REQUIREMENTS OF FEDERAL SPECIFICATIONS FF-H-121c, TYPE 3010

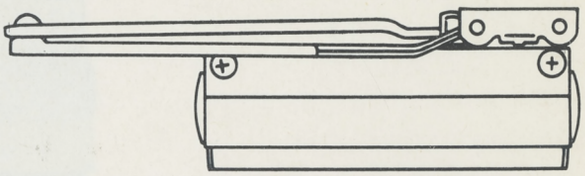
EATON YALE & TOWNE INC.

CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

WORKING PARTS, Model 2130







STANDARD INSTALLATION

The Slim-Stile "Jr" may be installed in less than 15 minutes and requires no special skills. Packed with easy-to-read instructions and all necessary screws.

PARALLEL ARM INSTALLATION

Requires only 3" space between doors, making it ideal for installation on inside of door. May be used on both wood and aluminum combination or jalousie doors.

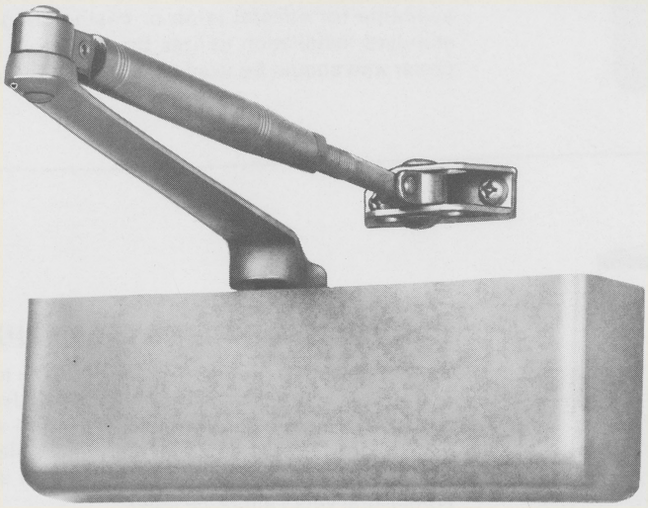
The Challenger Slim-Stile "Jr" provides the dependability and smooth, trouble-free operation so desirable in residential or light door control. It is compact and attractive in design, yet amazingly rugged in construction that includes aluminum shell, heat-treated steel shaft and pinion, steel arm, and high carbon steel spring. It uses specially compounded hydraulic fluid that affords permanent lubrication. Packed complete with screws for both wood and aluminum installations. Every unit is non-handed and may be used for either regular or parallel arm application. Available in silver bronze (SB), or sprayed bronze lacquer (BL) finishes.

Length: 7¼" overall. Width: 1½" overall. Height: 2⅞" overall. Packed six per carton, weight approximately 21½ lbs.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

CHALLENGER®

2140 Series Narrow Projection
DOOR CLOSERS



- **FULL RACK AND PINION MECHANISM**
  Provides complete door control throughout its swing.
- **NARROW PROJECTION**
  Especially designed for limited space.
- **ALUMINUM COVER AND SHELL.** Lightweight, rugged, corrosion proof.
- **DOUBLE ADJUSTING KEY VALVES.** Individual control of both closing and latching speeds. Out of sight; yet easily accessible.
- **BACK CHECKING ACTION**
  Provides controlled opening cushion.

The Challenger 2140 Series door closer is the finest compact, narrow projection closer available. Designed for use on both exterior and interior wood or metal doors where clearance for the closer is limited, or where an attractive, unobtrusive, compact installation is desired.

Available in 5 sizes for either standard or parallel arm installation.

MEETS REQUIREMENTS OF FEDERAL SPECIFICATIONS FF-H-121c, type 3230 (modified)

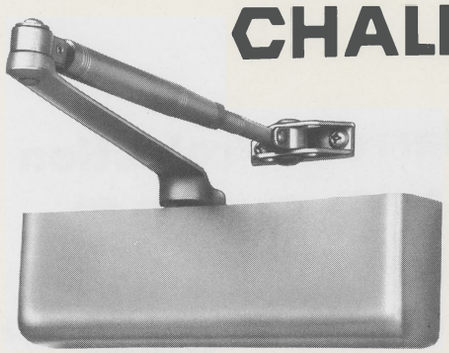
RECOMMENDED SIZES OF CHALLENGER 2140 SERIES DOOR CLOSERS

Approximate Maximum Door Size			Recommended Closer Size
EXTERIOR		INTERIOR	Standard or Corner Bracket Installation
Outswing	Inswing		
		2′6″	2142
		3′0″	2143
2′6″	2′2″	3′4″	2144-3
3′0″	2′8″	3′10″	2144
3′6″	3′2″	4′6″	2145

When ordering, specify: Catalog No.; Finish desired, if other than standard "SB" sprayed silver bronze (aluminum); Hand of door; Fastenings.

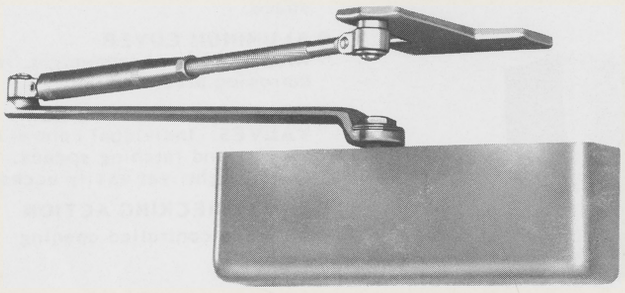
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

CHALLENGER® 2140 Series



STANDARD INSTALLATION

The door closer is applied to the hinge side of the door with the arm applied to the jamb or casing. Soffit jamb brackets No. **21-291** or No. **21-292** as shown below are available for special jamb or casing conditions. The standard installation utilizes the maximum door closer power and should be used whenever possible.



PARALLEL ARM INSTALLATION

The door closer is mounted on the opposite to hinge side of the door with the arm applied to the underside of the jamb. This installation is especially suited where arms cannot project outward, space is not available for the standard installation, or for low headroom doors where corner brackets cannot be used.

CORNER BRACKETS

Corner brackets are used with the door closer mounted on the opposite to hinge side of the door where there is adequate head room. Allows for openings to 180°.

FOR CLOSER	CATALOG NO.	BASE DIMENSIONS
2142, 2143 2144-3 2144, 2145	21-443 21-444 21-445	All sizes 7″ height, 6″ length, 1⅜″ width

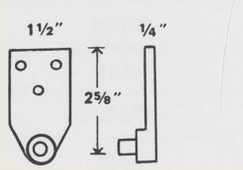
MISCELLANEOUS ITEMS

CASES

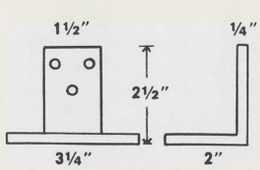
		DIMENSIONS		
FOR CLOSER	CATALOG NO.	Length	Height	Projection
2142, 2143	21-4307	8½″	3″	1¾″
2144-3	21-4407	11″	3 13/16″	1⅞″
2144, 2145	21-4507	13⅝″	3 13/16″	1⅞″

MORTISE SOFFIT JAMB BRACKETS

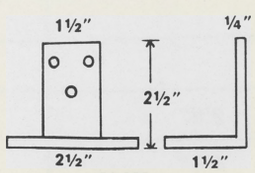
Furnished when specified in lieu of standard jamb brackets where plaster bead or detail trim is used.



21-291
REGULAR ARM BRACKET



21-292
HOLD OPEN ARM BRACKET



21-380
REGULAR ARM BRACKET
Retains standard jamb bracket with 15% power adjustment

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

Narrow Projection Door Closers

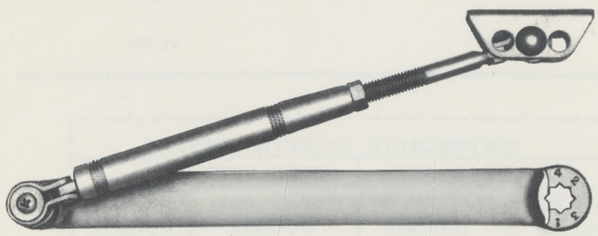
REGULAR CLOSER	HOLD OPEN CLOSER	FUSIBLE LINK HOLD OPEN CLOSER	LENGTH	SIZE OF CASE HEIGHT	PROJECTION
2142	2142H	2142F	8½″	3″	1¾″
2143	2143H	2143F	8½″	3″	1¾″
2144-3	2144-3H	2144-3F	11″	3 13/16″	1⅞″
2144	2144H	2144F	13⅝″	3 13/16″	1⅞″
2145	2145H	2145F	13⅝″	3 13/16″	1⅞″

*Providing structural conditions permit.

REGULAR PARALLEL ARM CLOSER	HOLD OPEN PARALLEL ARM CLOSER	FUSIBLE LINK HOLD OPEN PARALLEL ARM CLOSER
P2142	P2142H	P2142F
P2143	P2143H	P2143F
P2144-3	P2144-3H	P2144-3F
P2144	P2144H	P2144F
P2145	P2145H	P2145F

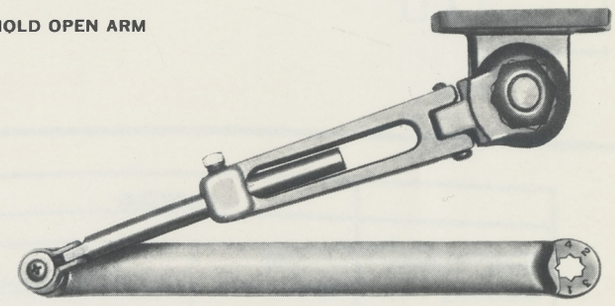
2140 SERIES DOOR CLOSER–Arm Assemblies: When ordering specify: Catalog No.; Finish desired, if other than standard "SB" sprayed silver bronze (aluminum); Hand of door; Fastenings.

REGULAR ARM



21-40-009

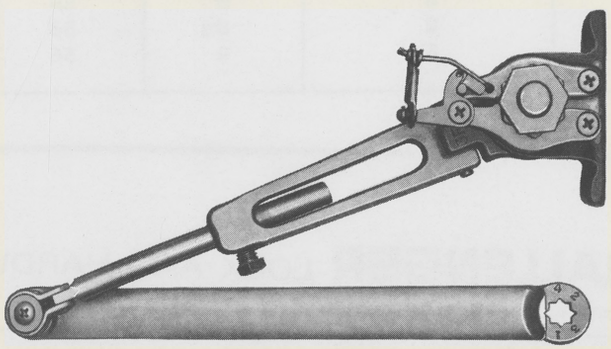
HOLD OPEN ARM



21-40-0200

FUSIBLE LINK HOLD OPEN ARM

21-40-0400 RH
21-40-0401 LH



EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

2100 SERIES DOOR CLOSERS

2140 SERIES DOOR CLOSER - PARALLEL ARM SOFFIT BRACKETS

21-288 Hold open arm bracket. Furnished with all parallel arm hold open or fusible link hold open closers.

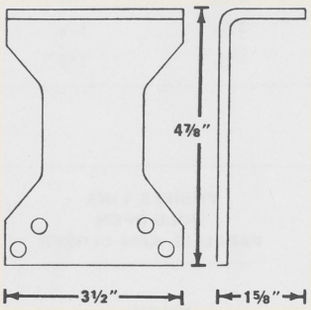
21-289L Angle bracket. For flush transom mounting. Used with brackets 21-288, 21-290, 21-418.

21-290 Deep drop bracket. Provides 2″ clearance for overhead auxiliary door holders.

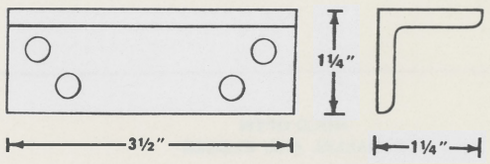
21-291 Reversible non-hold open bracket.

21-413 Soffit post bracket. For between door mounting.

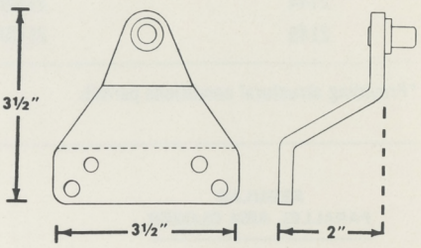
21-418 Regular arm bracket. Furnished with all parallel arm non-hold open door closers unless otherwise specified.



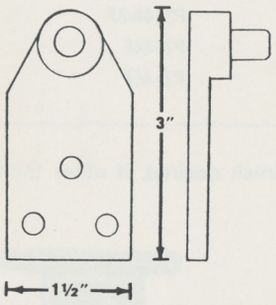
21-288



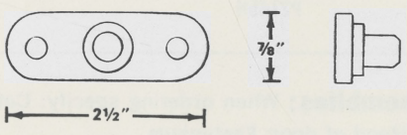
21-289L



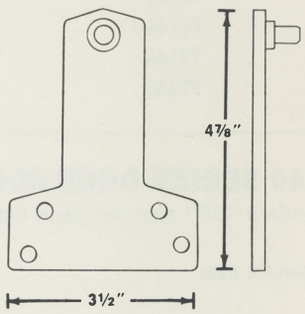
21-290



21-291



21-413



21-418

	PACKING		APPROXIMATE SHIPPING WEIGHT			
			REGULAR ARM		HOLD OPEN ARMS	
Door Closer Catalog No.	Per Shelf Box	Per Shipping Carton	Shelf Box Pounds	Carton Pounds	Shelf Box Pounds	Carton Pounds
2142	1	6	5½	35	6½	42
2143	1	6	5½	35	6½	42
2144-3	1	6	8	50	9	57
2144	1	6	8½	53	9½	60
2145	1	6	9	56	10	63

EATON YALE & TOWNE INC.

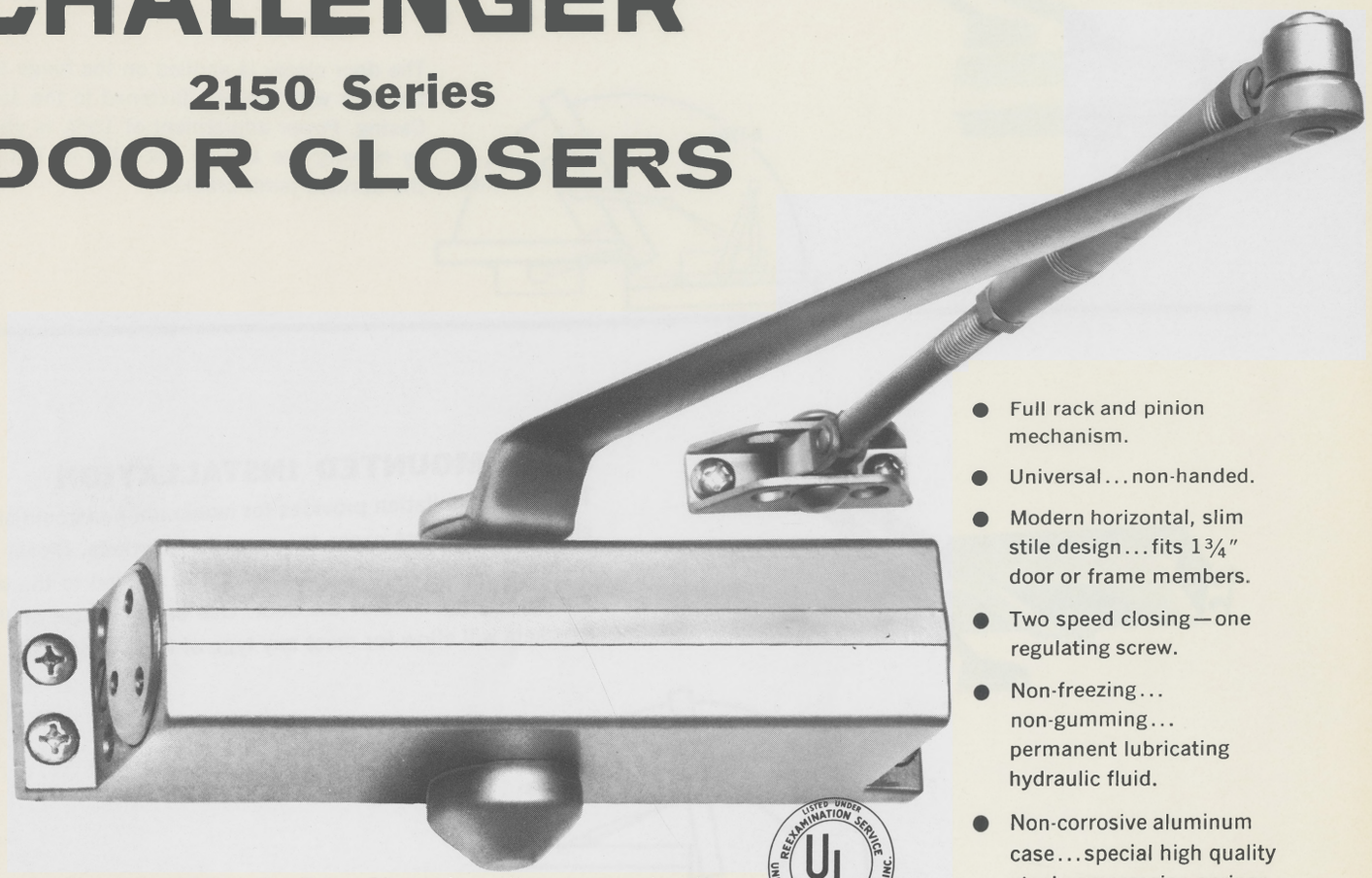
CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

TELEPHONE 714/774-1044, TELETYPE 910-591-1156

CHALLENGER®

2150 Series
DOOR CLOSERS



The Challenger 2150 series Door Closer is a slim, compact unit designed for years of dependable service in any commercial or institutional installation.

- Full rack and pinion mechanism.
- Universal... non-handed.
- Modern horizontal, slim stile design... fits 1¾" door or frame members.
- Two speed closing—one regulating screw.
- Non-freezing... non-gumming... permanent lubricating hydraulic fluid.
- Non-corrosive aluminum case... special high quality steel compression springs.
- Four different applications in one closer... many optional extras.

ADDITIONAL FEATURES AVAILABLE

DELAYED ACTION CLOSERS – All Non-Hold Open 2150 Series Door Closers without back check are available with Non Adjustable approximately 30-second delay closing when the door is opened at least 90°. Specify by Prefix D: i.e. D 2153.

KEY CONTROL VALVES – Key Control Valves are available on all 2150 Series Door Closers to prevent unauthorized persons from tampering with the adjustment of the door closers. Specify by Prefix K: i.e. K 2153. Order separately.

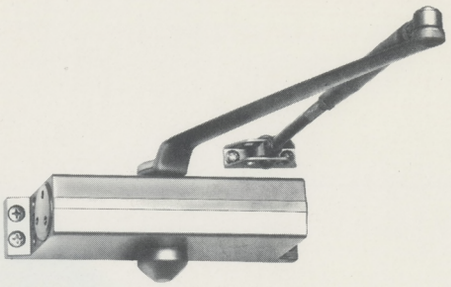
BACK CHECKING ACTION – A Non Adjustable back check can be built into all except Delayed Action Closers. Specify by Prefix B: i.e. B 2153.

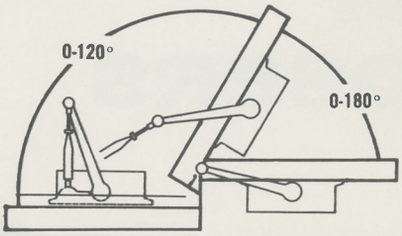
FINISH—Available in two attractive finishes—BL (Brown Lacquer) or SB (Silver Bronze Lacquer—Aluminum).

FEDERAL SPECIFICATIONS—Challenger 2150 Series meets the requirements of Federal Specifications FF-H-121C, types 3009* and 3230 (modified).
*Power adjustment of 15% is obtained by reversing the jamb bracket.

EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

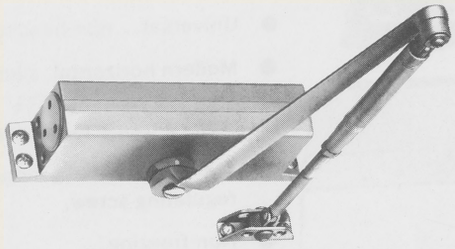
2100 Series DOOR CLOSERS



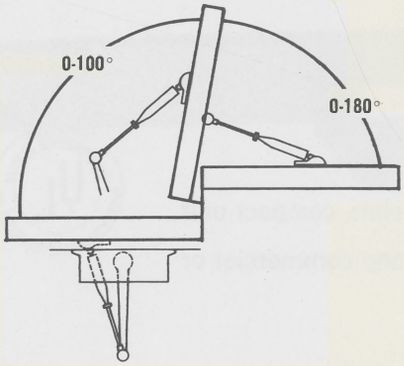


The door closer is applied on the hinge side of the door with the arm fastened to the Jamb or Casing. Power adjustment of 15% is obtained by moving the arm to the right or left within the surface jamb bracket.

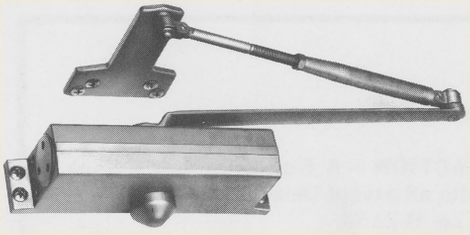
JAMB MOUNTED INSTALLATION



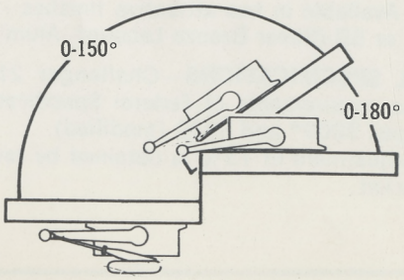
Top jamb installation provides for maximum headroom and eliminates in most cases the need for brackets. Closer is mounted on the head jamb. The arm is applied to the opposite to hinge side of the door. Use of "L" angle or flat brackets will allow for most any type of head condition.



PARALLEL ARM INSTALLATION



The Door closer is mounted opposite the hinge side of the door. The arm is applied to the frame or stop. This type of installation is especially suited where arms cannot project outward, space is not available on the hinge side of the door, or where lack of space prevents the use of brackets.



REGULAR PARALLEL ARM CLOSER	HOLD OPEN PARALLEL ARM CLOSER	FUSIBLE LINK HOLD OPEN PARALLEL ARM CLOSER*
P 2152	P 2152H	—
P 2153	P 2153H	P 2153F
P 2154	P 2154H	P 2154F
P 2155	P 2155H	P 2155F

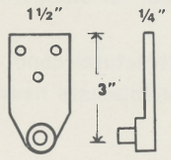
EATON YALE & TOWNE INC.

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2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

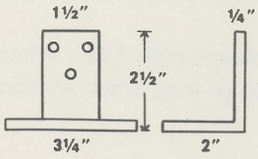
Door Closers

MORTISE SOFFIT JAMB BRACKETS

Furnished when specified in lieu of standard jamb brackets where plaster bead or detail trim is used.



21-291
REGULAR ARM BRACKET



21-292
HOLD OPEN ARM BRACKET

ximum swing of door

REGULAR CLOSER	HOLD OPEN CLOSER	FUSIBLE LINK HOLD OPEN CLOSER*	HOSPITAL CLOSER*	MIN. CLEARANCE REQUIRED BEHIND DOOR
2152				2⅞"
2153	2153H	2153F	2153H2	2⅞"
2154	2154H	2154F	2154H2	3⅛"
2155	2155H	2155F		3⅛"

*Not reversible, specify hand.

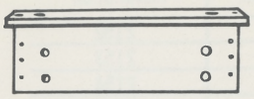
DEEP REVEAL JAMB MOUNTED INSTALLATION

MAXIMUM REVEAL 6¾" for regular door closers; 5¼" for hold open or fusible link hold open door closers equipped with "J" arm.

REGULAR ARM CLOSER	HOLD OPEN CLOSER	FUSIBLE LINK HOLD OPEN CLOSER
J2152	—	—
J2153	J2153H	J2153F
J2154	J2154H	J2154F
J2155	J2155H	J2155F

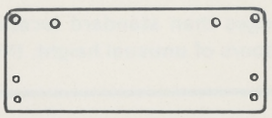
FLAT BRACKET or DROP PLATES 1⅜" Flat Surface required for mounting

"L" ANGLE BRACKET



FOR CLOSER	CATALOG #	"L" ANGLE BRACKET DIMENSIONS
2152	21-373	8 13/16" x 3½" x 2 3/16" x 5/16"
2153	21-373	8 13/16" x 3½" x 2 3/16" x 5/16"
2154	21-374	9 13/16" x 3½" x 2 3/16" x 5/16"
2155	21-374	9 13/16" x 3½" x 2 3/16" x 5/16"

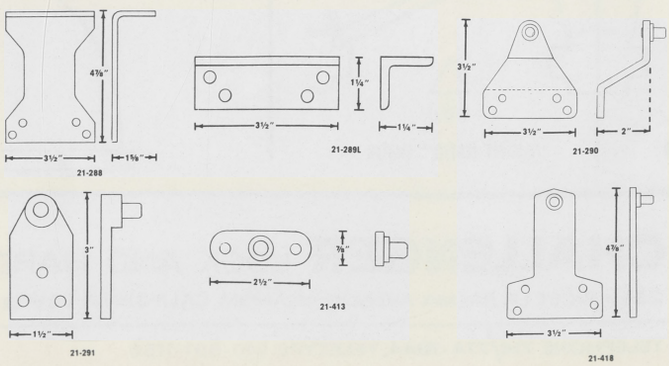
FLAT BRACKET OR DROP PLATES



FOR CLOSER	CATALOG #	FLAT BRACKET DIMENSIONS
2152	21-213	8⅞" x 3¼" x 3/16"
2153	21-213	8⅞" x 3¼" x 3/16"
2154	21-214	9⅞" x 3¼" x 3/16"
2155	21-214	9⅞" x 3¼" x 3/16"

PARALLEL ARM SOFFIT BRACKETS

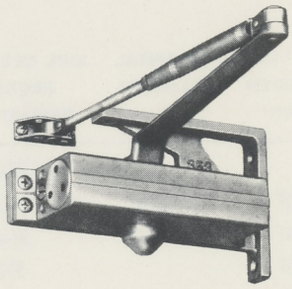
21-288 Hold open arm bracket. Furnished with all parallel arm hold open or fusible link hold open closers.
21-289L Angle bracket. For flush transom mounting. Used with brackets 21-288, 21-290, 21-418.
21-290 Deep drop bracket. Provides 2" clearance for overhead auxiliary door holders.
21-291 Reversible non-hold open bracket.
21-413 Soffit post bracket. For between door mounting.
21-418 Regular arm bracket. Furnished with all parallel arm non-hold open door closers unless otherwise specified.



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CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

2100 Series DOOR CLOSERS

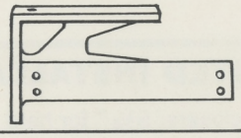


CORNER BRACKET INSTALLATION

With this type of installation, the door closer is mounted on a corner Bracket located opposite to hinge side. The Arm is fastened to the door. Corner Brackets are used to protect the closer from weather, for appearance, when overhead door holders are used, or if adequate space is not available on the hinge side of the door for standard installation.

Standard arms allow doors to open to approximately 145°. When structural conditions permit 180° swing is provided by use of long arms. All corner brackets have 7/8" wide base.

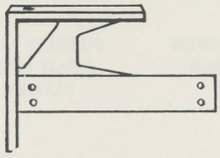
STANDARD CORNER BRACKET



FOR CLOSER	CATALOG NO.	BASE DIMENSIONS Height	Length
2152	21-353	5 5/16"	6 1/2"
2153	21-353	5 5/16"	6 1/2"
2154	21-354	5 5/16"	7"
2155	21-354	5 5/16"	7"

DEEP DROP CORNER BRACKET

Provides 1 7/8" clearance for overhead door holders



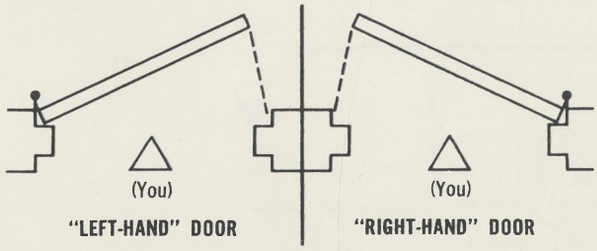
FOR CLOSER	CATALOG NO.	BASE DIMENSIONS Height	Length
2153	21-2353	7 3/16"	6 1/2"
2154	21-2354	7 7/16"	7"
2155	21-2354	7 7/16"	7"

RECOMMENDED SIZES OF CHALLENGER 2150 SERIES DOOR CLOSERS

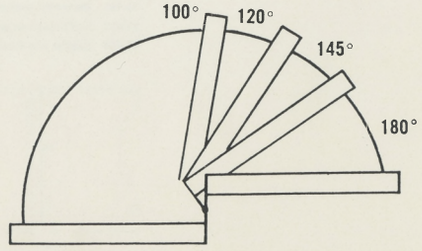
Approximate Maximum Door Size			Recommended Closer Size	
EXTERIOR		INTERIOR		
Outswing	Inswing		Standard or top jamb installation	Corner Bracket or parallel arm installation
Screen Doors				2152
Storm Doors		2'8"	2152	2153
2'6"	2'3"	3'0"	2153	2154
3'0"	2'9"	4'0"	2154	2155
3'6"	3'3"	4'6"	2155	

The use of longer arms, parallel arms, corner brackets or closer mounted nearer hinges than standard location shown on templates reduces power. Use larger size closer as indicated for these applications or for doors of unusual height, thickness, or weight.

How to determine whether your door is Left Hand, or Right Hand.



Degree of door opening angles



EATON YALE & TOWNE INC.

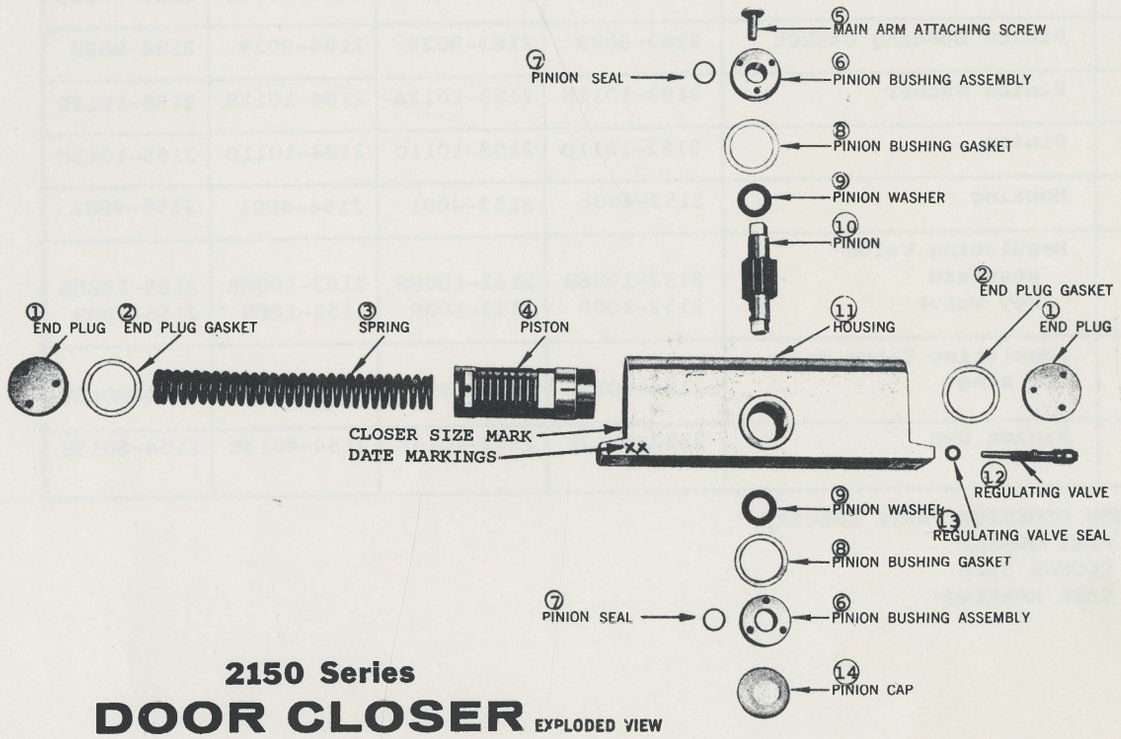
CHALLENGER LOCK AND HARDWARE DIVISION

2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

TELEPHONE 714/774-1044, TELETYPE 910-591-1156

2100 SERIES DOOR CLOSERS

	PACKING		APPROXIMATE SHIPPING WEIGHT			
			REGULAR ARM		HOLD OPEN ARMS	
DOOR CLOSER CATALOG NO.	PER SHELF BOX	PER SHIPPING CARTON	SHELF BOX POUNDS	CARTON POUNDS	SHELF BOX POUNDS	CARTON POUNDS
2152	1	6	5½	35	6½	42
2153	1	6	6	38	7	45
2154	1	6	7	43	8	50
2155	1	6	9	56	10	63



2150 Series
DOOR CLOSER EXPLODED VIEW

When ordering parts for Closers, specify:

Part Name
Closer Size
Date Marking

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CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

PARTS LIST, 2150M SERIES DOOR CLOSERS

(Not For Closers With Back Check Feature)

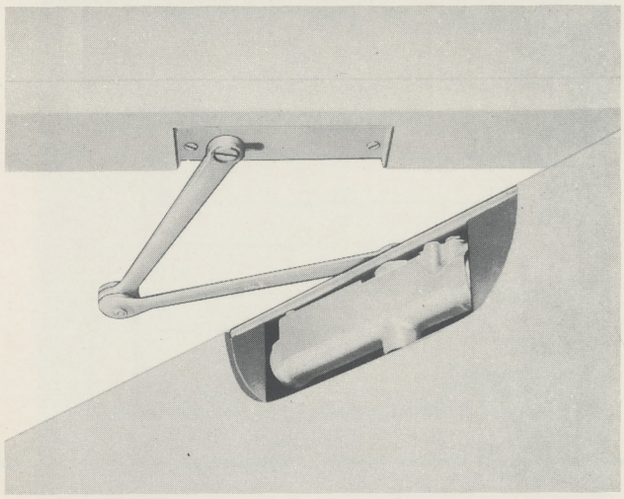
CODE	DESCRIPTION	FOR DOOR CLOSER SIZE 2152M	2153M	2154M	2155M
1	End Plug	2153-1016E	2153-1016E	2154-1016E	2155-1016E
2	End Plug Gasket	2153-9018	2153-9018	2154-9018	2155-9018
3	Spring	2152-1024D	2153-1024D	2154-1024D	2155-1024D
4	Piston	2153-0005E	2153-005E	2154-005E	2155-005E
5	Main Arm Attaching Screw	2183-0014A	2183-0014A	2183-0014A	2183-0014A
6	Pinion Bushing Assembly	2152-0006E	2153-0006A	2154-0006E	2185-0006E
7	Pinion Seal "O" Ring	2183-9009E	2184-9009E	2184-9009E	2185-9009E
8	Pinion Bushing Gasket	2183-9029	2183-9029	2184-9029	2184-9029
9	Pinion Washer	2183-1012E	2153-1012A	2184-1012E	2185-1012E
10	Pinion	2152-1011D	2153-1011C	2184-1011D	2155-1011C
11	Housing	2152-4001	2153-4001	2154-4001	2155-4001
12	Regulating Valve Standard Key Valve	 2152-1008B 2152-1009	 2152-1008B 2152-1009	 2152-1008B 2152-1009	 2155-1008B 2155-1009
13	Regulating Valve Seal "O" Ring	2184-9019E	2184-9019E	2184-9019E	2184-9019E
14	Pinion Cap	2153-4013E	2153-4013E	2154-4013E	2154-4013E

WHEN ORDERING PARTS SPECIFY:
- PART NUMBER
- CLOSER SIZE
- DATE MARKINGS

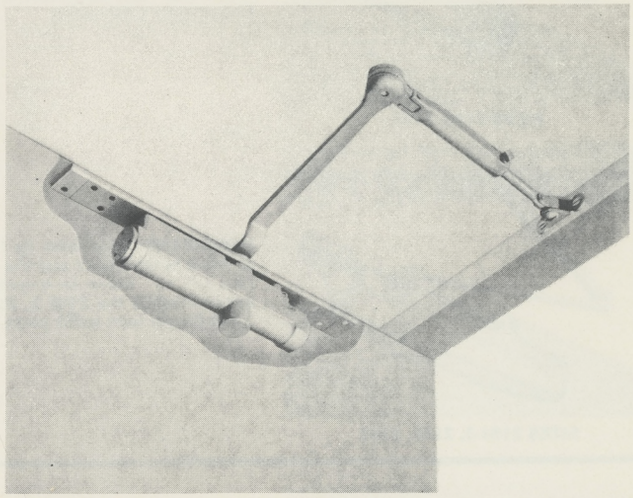
EATON YALE & TOWNE INC.
CHALLENGER LOCK AND HARDWARE DIVISION
2349 WEST LA PALMA AVENUE, ANAHEIM, CALIFORNIA 92803

CHALLENGER®

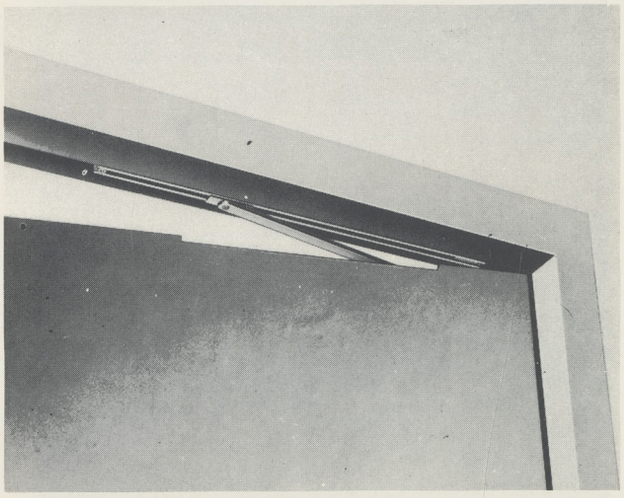
2160 Series CONCEALED DOOR CLOSERS



SOFFIT PLATE



SURFACE JAMB BRACKET



CONCEALED ARM

The Challenger 2160 Series Door Closer with concealed mechanism was designed for interior metal, wood or plastic faced doors where appearance is a determining factor.

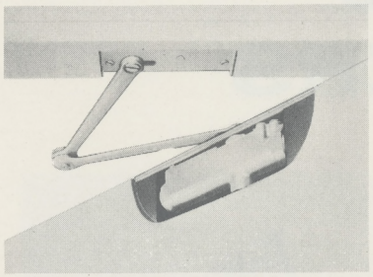
Available in five (5) sizes for soffit plate, surface jamb bracket or concealed arm installations.

- **FULL RACK & PINION MECHANISM:**
  Provides complete door control throughout its swing.
- **DOUBLE ADJUSTING KEY VALVES:**
  Individual control of both closing and latching speeds.
- **BACK CHECKING ACTION:**
  Provides controlled opening cushion.
- **CAST ALUMINUM SHELL:**
  Lightweight, assures long trouble free life.
- **CONCEALED MECHANISM:**
  Mortised into 1¾" doors, cut out with side plates for 1⅜" doors.
- **FINISHES:**
  Sprayed Silver Bronze (Aluminum) "SB" standard. Brown Lacquer "BL", unpolished Bronze "10", Polished Chromium "26" or Dull Chromium "26D" finishes also available when specified.

MEETS REQUIREMENTS OF FEDERAL SPECIFICATIONS
FF-H-121c, type 3230

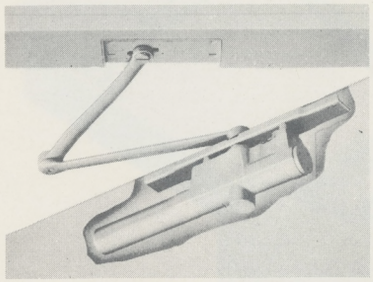
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CHALLENGER LOCK AND HARDWARE DIVISION
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CHALLENGER® 2160 Series



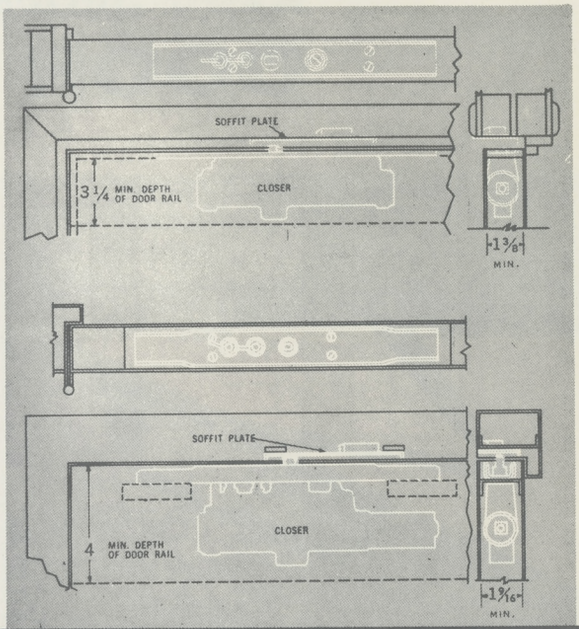
SIZES 2162, 2163

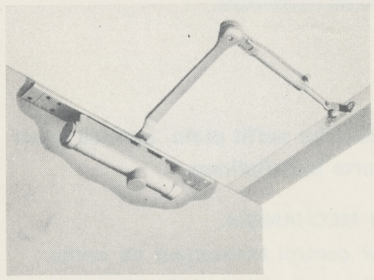
IMPORTANT: Door must be 1¾" min. thickness for regular 1⅛" wide soffit plate. Min. top rail depth 3¼" for 2162 and 2163 Closer with soffit plate.



SIZES 2164-3, 2164, 2165

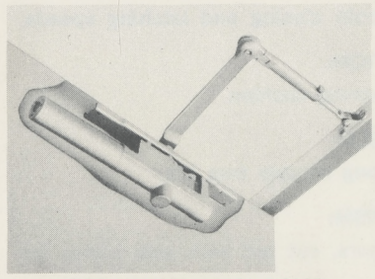
IMPORTANT: Door must be 1¾" or more in thickness and the top rail 4" or more in depth to accommodate the 2164-3, 2164, 2165 Closer with soffit plate.





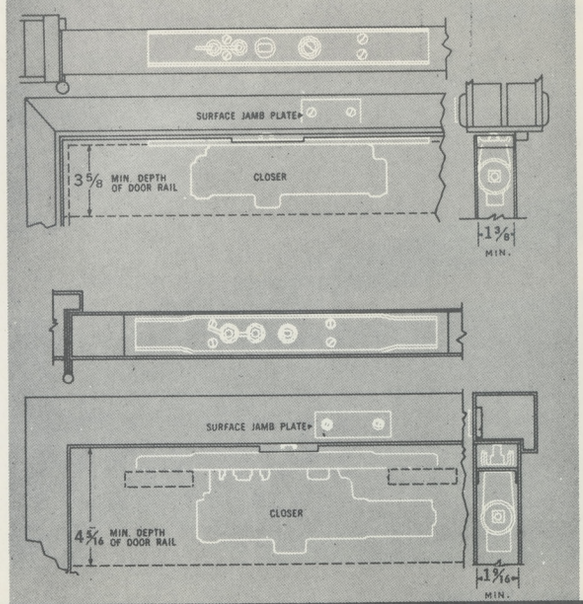
SIZES S 2162, S 2163

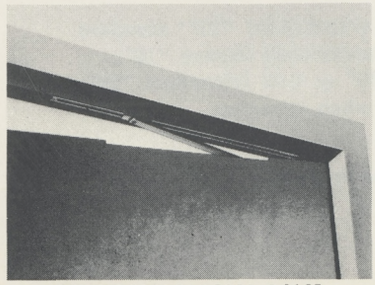
IMPORTANT: Door must be 1¾" or more in thickness and the top rail 3⅝" or more in depth to accommodate the S 2162, S 2163 Closer with surface jamb bracket. 1⅜" doors require side plates.



SIZES S 2164-3, S 2164, S 2165

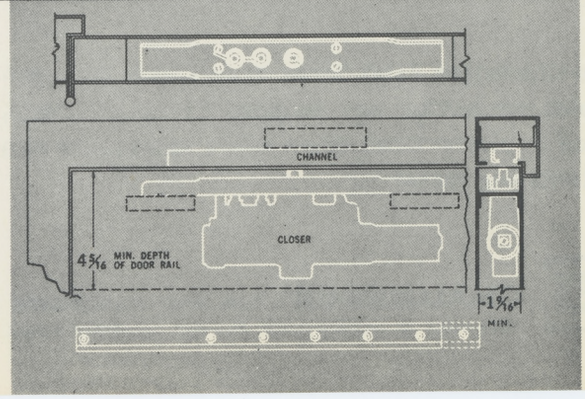
IMPORTANT: Door must be 1¾" or more in thickness and the top rail 4⅝" or more in depth to accommodate the S 2164-3, S 2164, S 2165 Closer with surface jamb bracket.





SIZES C 2164-3, C 2164, C 2165

IMPORTANT: Door must be 1¾" or more in thickness and the top rail 4⅝" or more in depth to accommodate the C 2164-3, C 2164, C 2165 Closer with concealed slide arm and channel.



Concealed Door Closers

SOFFIT PLATE INSTALLATION:

Challenger 2160 Series Door Closers are designed for 1¾" interior, metal, plastic faced or wood doors. Sizes 2162 and 2163 may be installed in 1⅜" wood doors by using a special 1⅝" wide soffit plate, cutting out a section of the door top rail, and attaching the side plates. (See page 4 for wood door installation.) In the soffit plate installation the closer is mortised into the door with the soffit plate mortised in the jamb.

REGULAR CLOSER	HOLD OPEN CLOSER		FUSIBLE LINK HOLD OPEN CLOSER
Opening to 180°	90°-140°	130°-180°	90°-140°
2162	2162H	2162H 180	—
2163	2163H	2163H 180	—
2164-3	2164-3H	2164-3H 180	2164-3F
2164	2164H	2164H 180	2164F
2165	2165H	2165H 180	2165F

SURFACE JAMB BRACKET INSTALLATION:

Primarily designed for use with standard metal or Channel Iron frames, the surface jamb bracket installation can often be used where the mortise soffit plate is not suitable or desired. The closer is mortised into the door with the jamb bracket applied to the jamb or casing.

REGULAR CLOSER	HOLD OPEN CLOSER		FUSIBLE LINK HOLD OPEN CLOSER
Opening to 180°	90°-140°	130°-180°	90°-140°
S 2162	S 2162H	S 2162H 180	—
S 2163	S 2163H	S 2163H 180	—
S 2164-3	S 2164-3H	S 2164-3H 180	S 2164-3F
S 2164	S 2164H	S 2164H 180	S 2164F
S 2165	S 2165H	S 2165H 180	S 2165F

CONCEALED ARM INSTALLATION:

Designed for 1¾" or thicker interior doors. The closer is mortised into the door with the concealed slide arm and channel mortised into the jamb. completely concealing the arm when the door is closed. It is recommended that details of proposed concealed arm installations be checked prior to ordering.

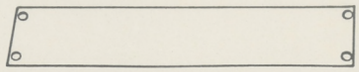
REGULAR CLOSER	HOLD OPEN CLOSER	
Opening to 160°	90°-120°	90°-140°
C 2164-3	C 2164-3H	C 2164-3H 140
C 2164	C 2164H	C 2164H 140
C 2165	C 2165H	C 2165H 140

2100 Series DOOR CLOSERS

WOOD DOOR INSTALLATION:

1 3/8" THICK WOOD DOORS

SIDE PLATES

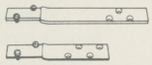


Size 14 1/4 x 3" For 2162, 2163

Sizes 2162 and 2163 may be installed in 1 3/8" thick wood doors by cutting out a section of the top rail and attaching side plates to cover the closer mechanism. The soffit plate installation also requires a special 1 5/8" wide soffit plate. When side plates are required specify by adding "SP" to catalog number, ie: 2162SP.

1 3/4" THICK WOOD DOORS

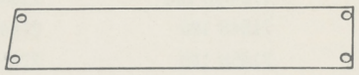
EXTENSION BRACKETS



Size 5 7/8 x 1 1/4" For 2164-3

Size 8-9/16 x 1 1/4". For 2164 x 2165

SIDE PLATES



Size 14 3/4 x 4 1/2" For 2164-3

Size 19 1/2 x 4 1/2" For 2164, 2165

Sizes 2162 and 2163 may be installed in 1 3/4" thick doors without the use of side plates or extension brackets.

Sizes 2164-3, 2164 and 2165 require an extension bracket when used on wood doors. The closer shell on these sizes is 1-9/16" in width and side plates are often desired when installing on slightly undersized doors or when the mortise must be prepared with hand tools. Minimum depth of top rail required is 4-5/16".

When an extension bracket is required, specify by adding "X" to catalog number, ie: 2164X.

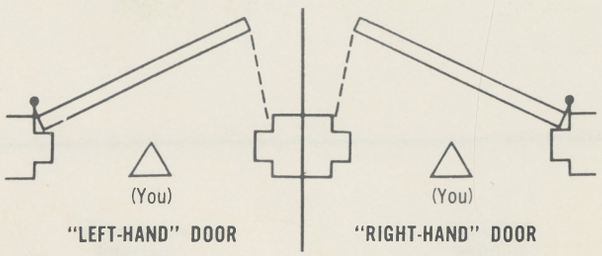
When an extension bracket and side plates are required, specify by adding "XSP" to catalog number, ie: 2164XSP.

RECOMMENDED SIZES OF CHALLENGER 2160 SERIES DOOR CLOSERS

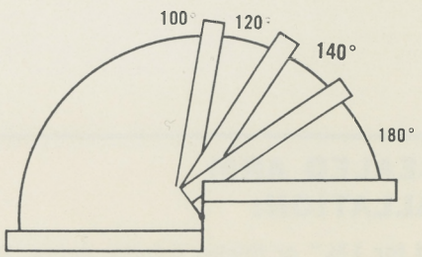
Approximate Maximum Interior Door Size		Recommended Closer Size
Wood Doors	Metal Doors	
2' 6"	2' 2"	2162
3' 0"	2' 8"	2163
3' 4"	3' 2"	2164-3
3' 10"	3' 6"	2164
4' 0"	3' 8"	2165

When ordering specify: Catalog No., Finish Desired (SB furnished unless otherwise specified), Hand, Thickness and Material of Door and Frame.

How to determine whether your door is Left Hand, or Right Hand.



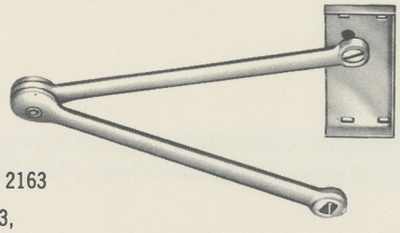
Degree of door opening angles



	PACKING		APPROXIMATE SHIPPING WEIGHT			
			REGULAR ARM		HOLD OPEN ARMS	
DOOR CLOSER CATALOG NO.	PER SHELF BOX	PER SHIPPING CARTON	SHELF BOX POUNDS	CARTON POUNDS	SHELF BOX POUNDS	CARTON POUNDS
2162	1	6	5	33	6	38
2163	1	6	5	33	6	38
2164-3	1	6	6 1/2	33	6	38
2164	1	6	7	43	8	50
2165	1	6	7 1/2	47	8 1/2	54

CLOSER ARM ASSEMBLIES: When ordering, specify Catalog No., hand and finish.

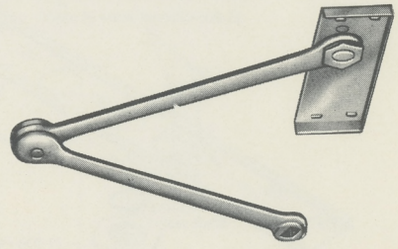
REGULAR ARM



21-2302, for 2162, 2163

21-2313, for 2164-3, 2164, 2165

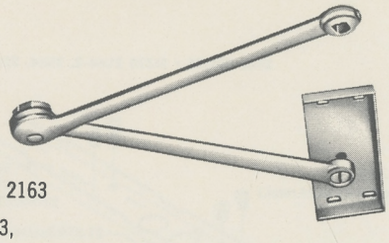
130° TO 180° HOLD OPEN ARM



21-2312, for 2162, 2163

21-2330, for 2164-3, 2164, 2165

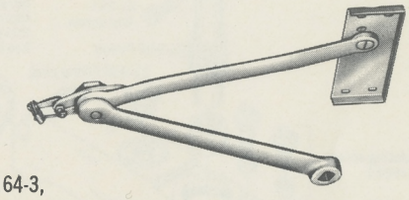
90° TO 140° HOLD OPEN ARM



21-2303, for 2162, 2163

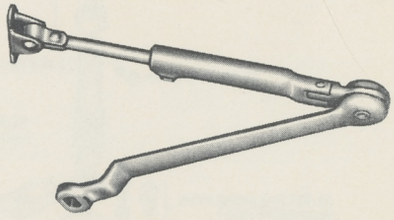
21-2314, for 2164-3, 2164, 2165

90° TO 140° FUSIBLE LINK HOLD OPEN ARM



21-2333, for 2164-3, 2164, 2165

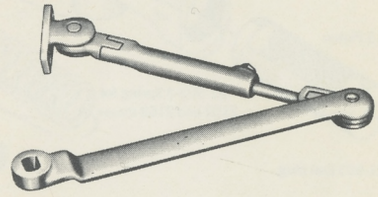
REGULAR ARM



21-2307, for 2162, 2163

21-2305, for 2164-3, 2164, 2165

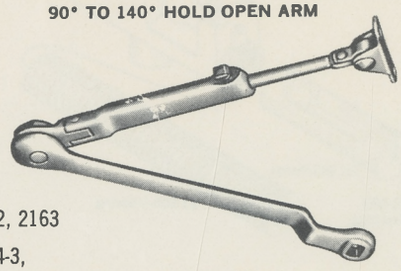
130° TO 180° HOLD OPEN ARM



21-2315, for 2162, 2163

21-2306 180, for 2164-3, 2164, 2165

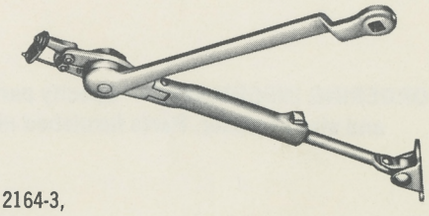
90° TO 140° HOLD OPEN ARM



21-2308, for 2162, 2163

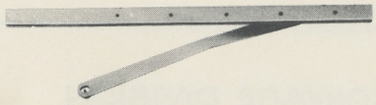
21-2306, for 2164-3, 2164, 2165

90° TO 140° FUSIBLE LINK HOLD OPEN ARM



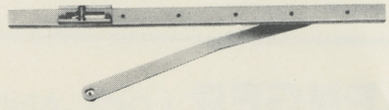
21-2306F, for 2164-3, 2164, 2165

REGULAR ARM



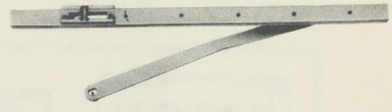
21-2324, for 2164-3, 2164, 2165

90° TO 120° HOLD OPEN ARM



21-2323, for 2164-3, 2164, 2165

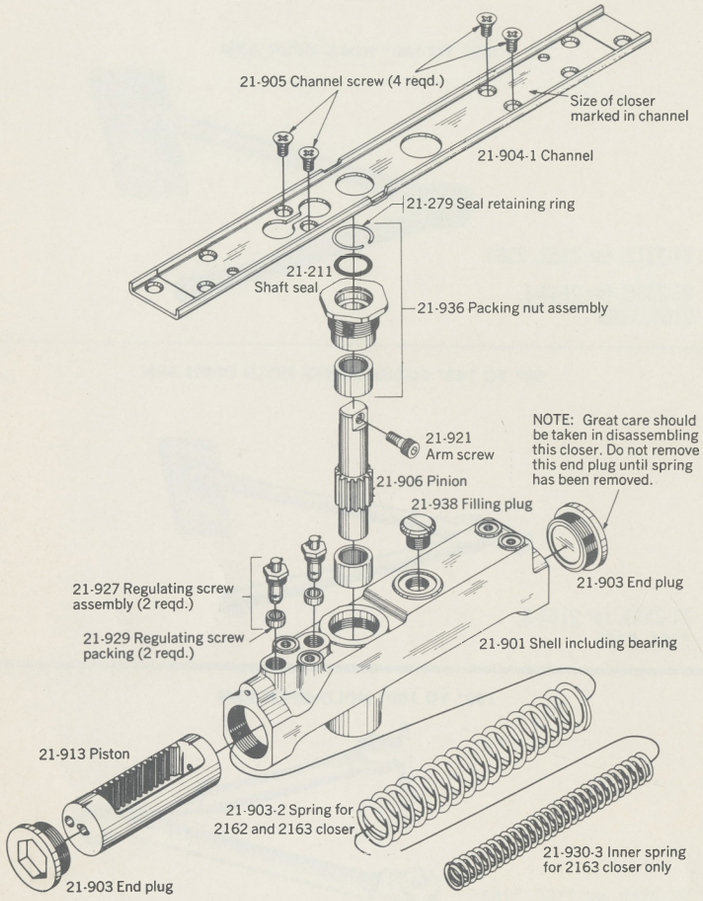
90° TO 140° HOLD OPEN ARM



21-2323 140, for 2164-3, 2164, 2165

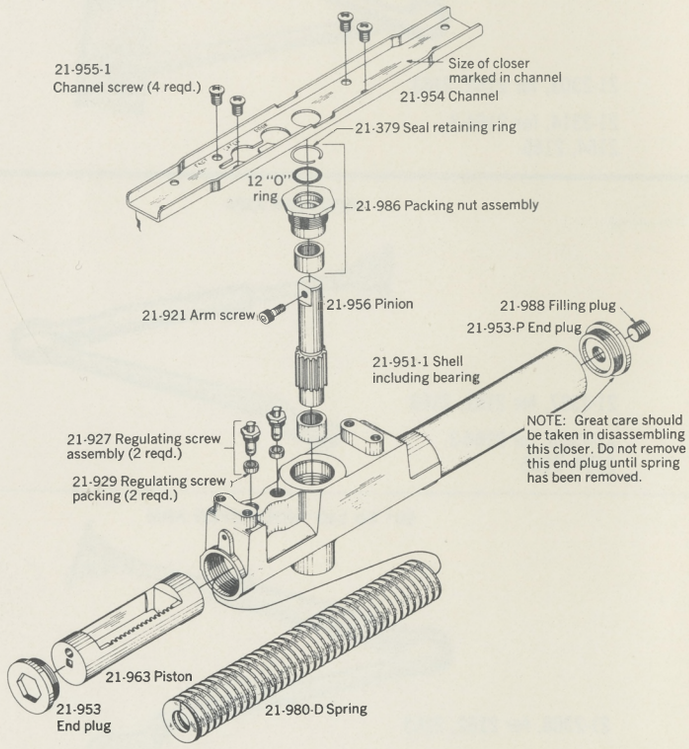
2100 Series DOOR CLOSERS

2160 SERIES • SIZES 2162, 2163



ORDERING INFORMATION: Specify part number and size of closer. Parts furnished unfinished

2160 SERIES • SIZES 2164-3, 2164, 2165



ORDERING INFORMATION: Specify part number and size of closer. Parts furnished unfinished

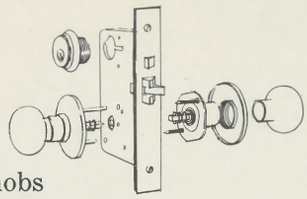
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TELEPHONE 714/774-1044, TELETYPE 910-591-1156

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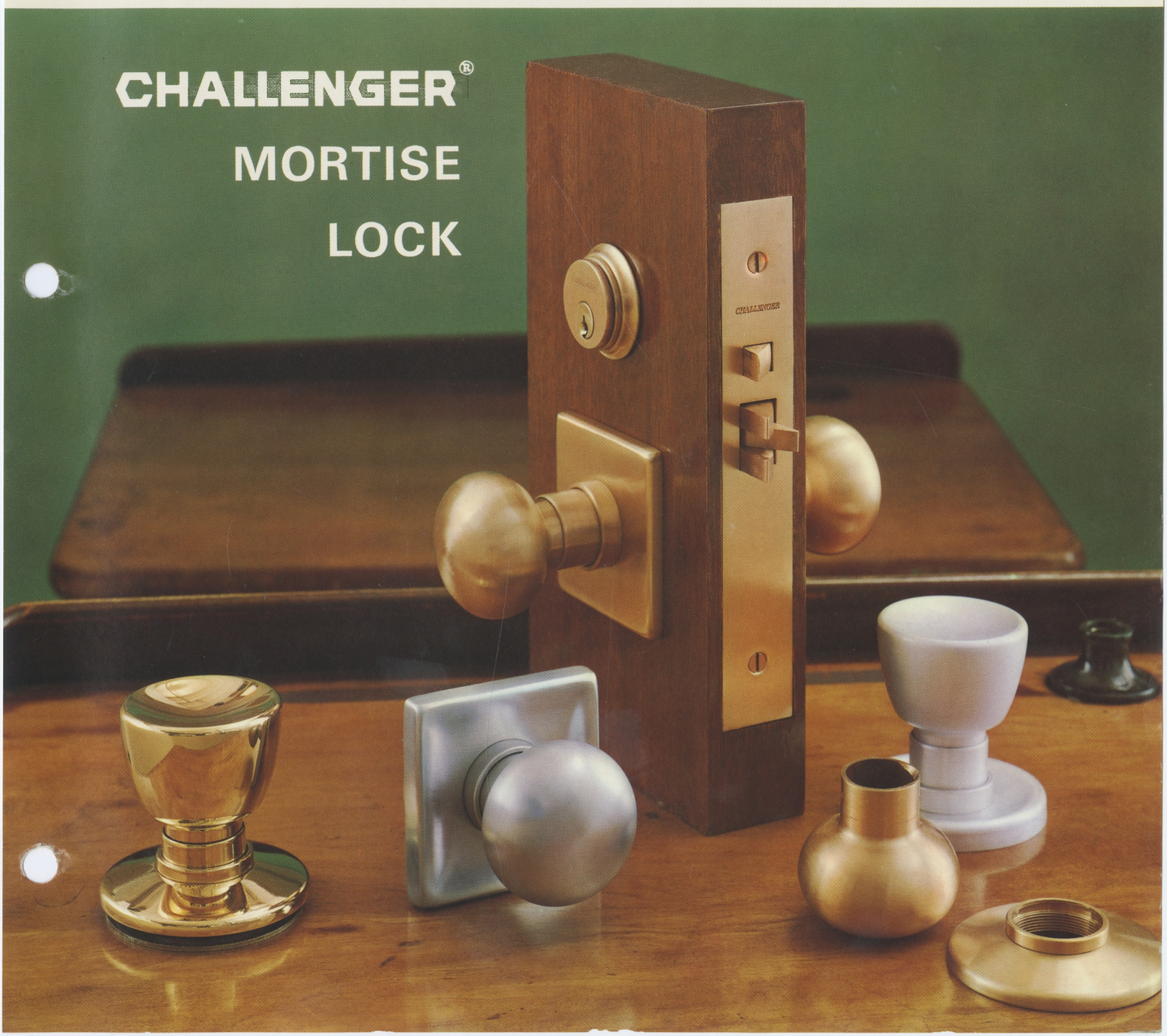


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