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# ELECTROMAGNETIC DOOR HOLDER/RELEASES

Designed for remote door release applications

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# ELECTROMAGNETIC DOOR HOLDER/RELEASES

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#### Introduction

Rixson offers a wide range of electromagnetic door holders/releases. Designed for virtually any remote door release application, electromagnetic door holders/releases primarily hold fire doors open until released by an alarm or smoke detector.

Floor mounted units are available for single or back-to-back doors. Wall mounted units feature concealed or surface wiring, low profile projection or high hold force.



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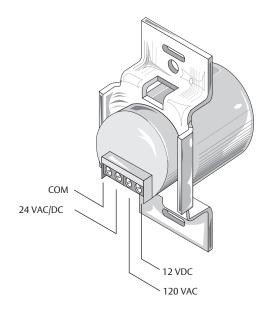
#### **General Information**

Electromagnetic door holder/releases are designed for virtually any remote door release applications. They must be used in conjunction with closing devices.

- Fire/smoke barrier doors
- Door releases when tripped by an alarm or smoke detector
- Private offices
- Door releases when triggered by a remote switch
- All devices come with a wall/floor portion and a door portion (armature)
- Circuit normally closed
- Door portions have screws and plates to accommodate surface and concealed mounting

#### **Features**

- 25 to 40 pounds holding force, except where noted
- Fail-safe operation; power failure releases door to close
- Positive release button initiates closing motion
- Tri-volt coils on most models see 🛮 🎂 రీ రీ రీ
- Spotting template included
- For stronger holding forces (50-55 lbs.) specify model and voltage. Not available in tri-volt coils



# Certifications

- Compliant with ANSI/BHMA A156.15 Standards. See individual products for sub sections
- UL/ULC listed
- Listed by California State Fire Marshal

# Specifications

All electromagnetic door holder/releases shall be supplied by architectural hardware supplier. All units shall have a single coil to accommodate 12VDC, 24VAC, 24VDC and 120VAC. The coils shall be independently wound, employing a fuse. Armatures will have positive release button.



#### ELECTROMAGNETIC DOOR HOLDER RELEASES

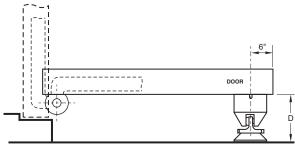
#### HOW TO SELECT PRODUCT

Prior to determining the product you will need to use, begin by looking at the door and perpendicular wall relationship.

- Measure the distance. That will give you the "D" dimension. Select from chart A.

#### Chart A

If the distance from wall to door is: "D"	Use	
7/16" (11)	989	
1-13/16" (46)	990M	
2-5/8" (67)	997M	
3-5/8" (92)	998M	
3-3/4" (95)	994M	
4-1/8" (105)	996M	
4-3/8" (111)	999M	
5-1/8" (130)	998M x XK996M	
6-5/8" (168) min. distance from wall	980M	
6-3/4" distance between doors	981M	



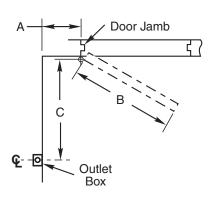
900 base has a minimum: 1-1/2" (38mm) extension. Maximum: 10" using combination of spacers [1/2" (13mm), 3/4" (19mm), etc.] Longer armature projections may encourage abuse and/or the weight of the extended rods will pull off the face of the door.

# Chart B

Junction box location should always be as close as possible to the door pull/lever/knob.

A position horizontally farther toward the hinge edge will dramatically lessen the hold open force of the magnet.

A mounting too high on the vertical plane (top of door) will make it more difficult to pull out of hold open.



#### Refer to Diagram B

- How far is the centerline of the pivot/hinge from the wall? "A" dimension
- What is width of door? "B" dimension
- At what degree is the door opening? If this dimension is more than  $100^\circ$  consult template. The armature has a few degrees of adjustment but, before proceeding verify with the product template
- Dimension "C" is from pivot point to junction box centerline



#### **Application**

- Floor mount
- Single door
- Shipping weight: 4 lbs. (1.8 kg)

#### **Features**

- Concealed wiring
- Total floor space required: 6-5/8" (168mm)
- Mounting requirements: conduit connects directly to floor plate
- 2 year limited warranty

# Compliance

- ANSI/C00021

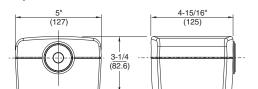
#### **Electrical Data**

- Voltage and current:

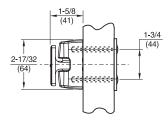
120VAC, 60 Hz., .020 amp 24VAC/DC, 60 Hz., .020 amp 12VDC, .040 amp

 For 50-55 lbs. of holding force, specify voltage 120VAC, 60Hz .017 amp 24VAC, 60Hz .080 amp 24VDC, .068amp

12VDC, .180amp







# Model 981M

# **Application**

- Floor mount
- 2 back-to-back doors
- Shipping weight: 4-3/4 lbs. (2.2 kg)

#### **Features**

- Concealed wiring
- Floor space required: 8-1/4" (210mm)
- Mounting requirements: conduit connects directly to floor plate

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- 2 year limited warranty

# Compliance

- ANSI/C00031

#### **Electrical Data**

- Voltage and current: 120VAC, 60Hz., .040 amp

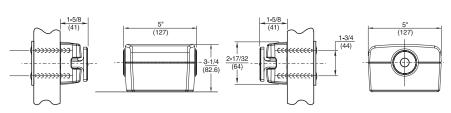
24VAC/DC, .040 amp 12VDC, .080 amp

- For 50-55 lbs. of holding force, specify voltage 120VAC, 60Hz .034 amp

24VAC, 60Hz .016 amp 24VDC, .036 amp

12VDC, .360 amp







# ASSA ABLOY

#### WALL MOUNTED

# **Application**

- Wall mount
- Low profile
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

#### **Features**

- Total projection: 7/16" (11mm)
- Mounting requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

# Compliance

- ANSI/C00011

## **Electrical Data**

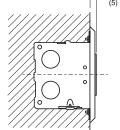
- Voltage and current: 120VAC, 60Hz., .020 amp 0000 24VAC/DC, 60Hz., .020 amp

12VDC, .040 amp

- For 50-55 lbs. of holding force, specify voltage 120VAC, 60Hz .017 amp

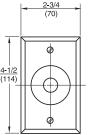
24VAC, 60Hz .080 amp

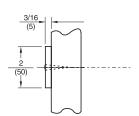
24VDC, .068amp 12VDC, .180amp



3/16

3/16





# **Application**

- Wall mount
- Low profile
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

#### **Features**

- Total projection: 1-13/16" (46mm)
- Mounting requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

# Compliance

- ANSI/C00011

#### **Electrical Data**

- Voltage and current: 120VAC, 60Hz., .020 amp 24VAC/DC, 60Hz., .020 amp

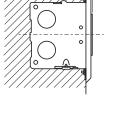
12VDC, .040 amp - For 50-55 lbs. of holding force, specify voltage

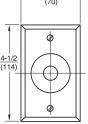
120VAC, 60Hz .017 amp

24VAC, 60Hz .080 amp

24VDC, .068amp

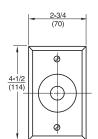
12VDC, .180amp

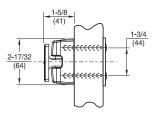






# Model 990M







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# **Application**

- Wall mount
- Surface wiring
- Hazardous locations
- Shipping weight: 3 lbs. (1.4 kg)

#### **Features**

- Total projection: 4" (101mm)
- Approved for class I division 2, class II division 2, groups F and G and class III locations
- Unit includes a sealed surface-mounted junction box
- 2 year limited warranty

# Compliance

- ANSI/C00011

#### **Electrical Data**

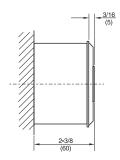
- Voltage and current:

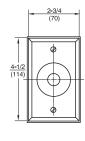
120VAC, 60Hz., .017 amp

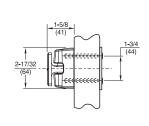
24VAC, .080 amp

12VAC, .180 amp

24VDC, .068 amp







# Model 993M

# **Application**

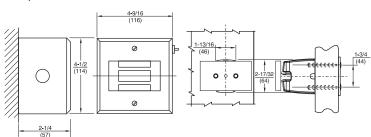
- High hold
- Surface or concealed mounting
- Floor or wall application
- Shipping weight: 3 lbs. (1.4 kg)

#### **Features**

- 300 lb. holding force
- Total projection: 5-1/4" (133mm)
- Switch box included 4-1/2" x 4-9/16" x 2-5/16" (114 x 116 x 59mm) deep
- Armature plate thru-bolted to maintain consistent contact with magnet
- Adjusting screw on special heavy-duty armature allows for alignment of contact plate
- 9930M Floor mount available
- Unit has test switch may be ordered without switch if door will be pulled out of hold open very often
- Use key switch to release (by others)
- Substantial wall reinforcement required
- 2 year limited warranty

#### **Electrical Data**

- Voltage and current: 24VAC/DC .25 amp





#### WALL MOUNTED

# **Application**

- Wall mount
- Adjustable armature
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

#### Features

- Total projection: 3-3/4" (95mm)
- Adjustable armature rotation up and down, back and forth for better alignment.
- Cannot be use with 900 base or spacers.
- Can be used without adjustment piece making it a model 997
- Mounting requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

# Compliance

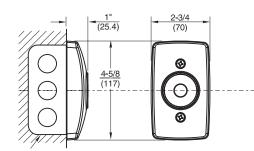
- ANSI/C00011

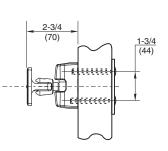
#### **Electrical Data**

Voltage and current:
 120VAC, 60Hz., .020 amp
 24VAC/DC, 60Hz., .020 amp
 12VDC, .040 amp



- For 50-55 lbs. of holding force, specify voltage 120VAC, 60Hz .017 amp 24VAC, 60Hz .080 amp 24VDC, .068amp 12VDC, .180amp





# Model 996M

# **Application**

- Wall mount
- Surface wiring
- Shipping weight: 3 lbs. (1.4 kg)

#### **Features**

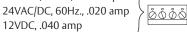
- Total projection: 4-1/8" (105mm)
- Mounting requirements: 1-1/2" (38mm) deep adapter housing
- Wall must be properly reinforced
- 2 year limited warranty

#### Compliance

- ANSI/C00011

# **Electrical Data**

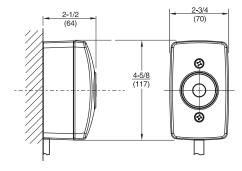
- Voltage and current: 120VAC, 60Hz., .020 amp



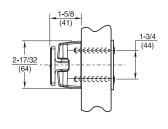
12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
120VAC, 60Hz .017 amp
24VAC, 60Hz .080 amp

24VDC, .068amp

12VDC, .180amp









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## Application

- Wall mount
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

#### **Features**

- Total projection: 2-5/8" (67mm)
- Mounting requirements: 2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

# Compliance

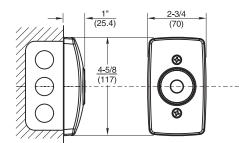
- ANSI/C00011

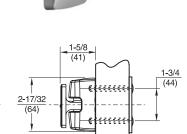
#### **Electrical Data**

- Voltage and current: 120VAC, 60Hz., .020 amp 24VAC/DC, 60Hz., .020 amp 12VDC, .040 amp



- For 50-55 lbs. of holding force, specify voltage 120VAC, 60Hz .017 amp 24VAC, 60Hz .080 amp 24VDC, .068amp 12VDC, .180amp





# Model 998M

#### **Application**

- Wall mount
- Concealed wiring
- Shipping weight: 2-1/2 lbs. (1.1 kg)

#### **Features**

- Total projection: 3-5/8" (92mm)
- Mounting requirements: 2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

# Compliance

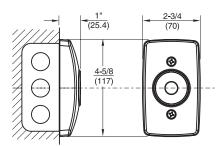
- ANSI/C00011

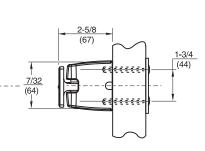
# **Electrical Data**

Voltage and current:
 120VAC, 60Hz., .020 amp
 24VAC/DC, 60Hz., .020 amp
 12VDC, .040 amp



- For 50-55 lbs. of holding force, specify voltage 120VAC, 60Hz .017 amp 24VAC, 60Hz .080 amp 24VDC, .068amp 12VDC, .180amp







#### WALL MOUNTED

# **Application**

- Universal mounting
- Shipping weight: 2-3/4 lbs. (1.2 kg)

#### **Features**

- Base plate; concealed wiring
- Total projection: 4-3/8" (111mm)
- Mounting requirements: 2" x 4" (51 x 102mm) outlet box; 4" (102mm) square box; 4" (102mm) octagonal box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

# Compliance

- ANSI/C00011

# **Electrical Data**

- Voltage and current:

120 VAC, 60 Hz., .020 amp 24 VAC/DC, 60 Hz., .020 amp



- For 50-55 lbs. of holding force, specify voltage

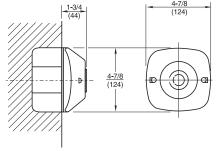
120VAC, 60Hz .017 amp

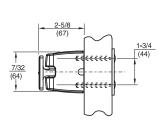
24VAC, 60Hz .080 amp

24VDC, .068amp

12VDC, .180amp

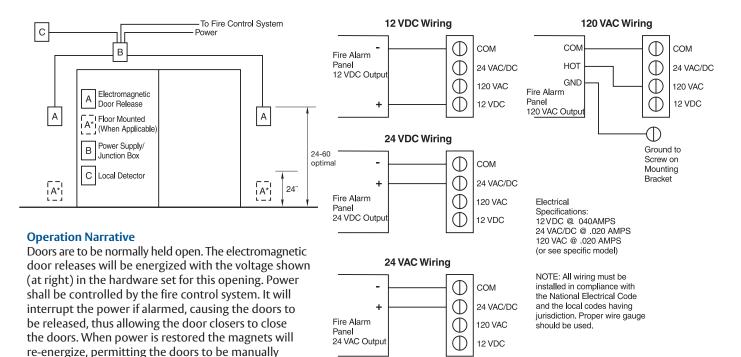






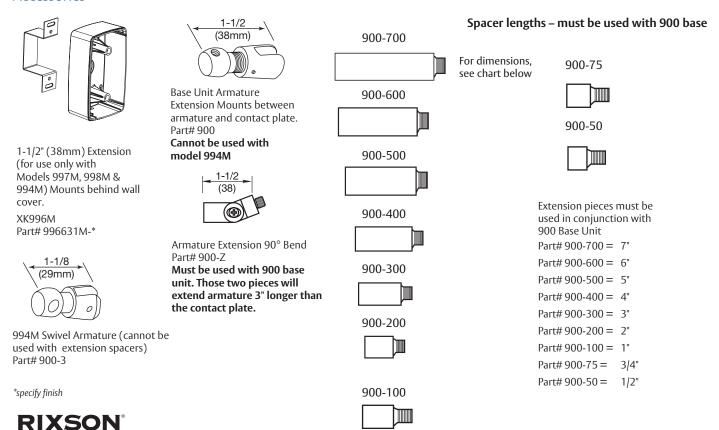


#### **Schematics**



#### Accessories

returned to their held open position.



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INDUSTRIAL USE

The Rixson® 972 Industrial Door Release is listed by Underwriters' Laboratories as a substitute for fusible links in such applications as overhead rolling doors, guillotine doors, fire dampers and self-closing windows. These heavy-duty units provide automatic release when triggered by a smoke detector, manual pull station, test button on unit, or other electrically operated switch.

# **Application**

- 972H for swinging doors
- 972S for sliding doors
- 972U for overhead doors
- Specify model number and voltage

#### Features

- Shipping weight: 5 lbs. (2.3 kg)
- 2 year limited warranty

#### Compliance

- ANSI/C00041

# **Electrical Data**

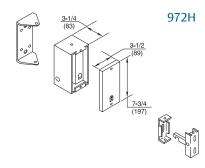
- Voltage and current:
   120VAC, 60Hz., .150 amp
   24VAC, 60Hz., .150 amp
   24VDC, .08 amp
   12VDC, .08 amp
- Holding force 75 lbs

# **Code Listings:**

- Underwriters' Laboratories, Inc.
- Underwriters' Laboratories of Canada
- State of California (3550-047:13)

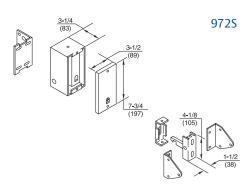
#### 972H for Swinging Doors





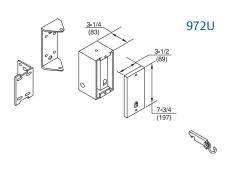
#### 972S for Sliding Doors





#### 972U for Overhead Doors







# ELECTROMAGNETIC DOOR HOLDER/RELEASES

HOW TO ORDER

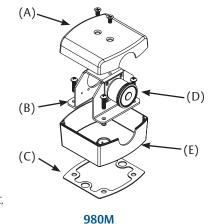
	<b>998M</b> Series	<b>120VAC</b> Voltage		<b>689</b> Finish
980M 981M 989 990M 991M 993M 9930M 994M 996M 997M 998M 999M 972H 972S	Floor Mounted Floor Mounted Back to Back Doors Low Projection Wall Mounted Low Projection Wall Mounted Hazardous Location Wall Mounted High Hold Wall Mounted High Hold Floor Mounted Wall Mounted Adjustable Armature Surface Mounted Wall Mounted Wall Mounted Industrial Swing Door Holder Industrial Overhead/Rolling Door	120VAC 24VAC/DC 12VDC  Note: Tri-Volt (120VAC, 24VAC/DC, 12VDC) is standard on models: 980M, 981M, 989, 990M, 994M, 996M, 997M, 998M and 999M. For 50-55 lbs of holding force on these models, specify model x 120VAC, 24VAC, 24VDC or 12VDC when ordering.	689 690 691 693 696	Sprayed Alum Sprayed Dk Bronze Sprayed Lt Bronze Sprayed Black Sprayed Brass

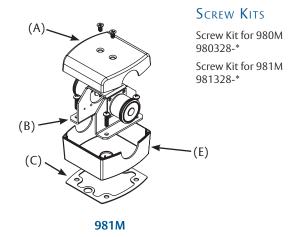


#### Floor Portion

- (A) Magnet Housing Cover 980311M-\* / 981311M-\*
- (B) Magnet Support Bracket 981309
- (C) Gasket 980095M
- (D) Magnet \*\*996219-3V
- (E) Magnet Housing Base 980312M-\* / 981312M-\*

\*\*For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for electromagnet assembly part number.





Used With Model 980M/981M, 990M, 991M, 996M, 997M

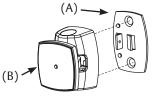
# **Door Portion**

- (A) \*\*Backup Plate 900314
- (B) Door Armature 997510M-\*
- (C) \*\*Door Plate\* 998009

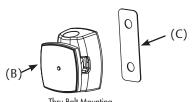
\*\*Not Sold Separately – See Screw Kit

\*specify finish

Door portion screws included with Wall/Floor parts.



Surface Applied Concealed Mounting Recommended for Solid Wood Doors Only

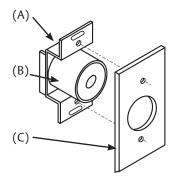


Thru Bolt Mounting Recommended for Hollow Metal, Hollow Core or Composite Type Wood Doors

#### Wall Portion

- (A) Magnet Bracket 990002
- (B) Magnet \*\*996219-3V
- (C) Wall Cover Plate 990001

\*\*For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.

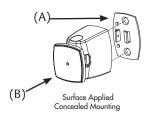


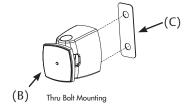
SCREW KITS Screw Kit for 990M 990300-\*

# Used With Model 998M, 999M

#### **Door Portion**

- (A) Backup Plate 900314
- (B) Door Armature 998512M-\*
- (C) Door Plate 998009





SCREW KITS See Screw Kit for 998M 998303-\*

\*specify finish

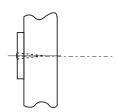
 $Door\ portion\ screws\ included\ with\ Wall/Floor\ parts.$ 

# Used With Model 989

#### **Door Portion**

(A) Door Armature Attachment screw included in Kit. 444FM





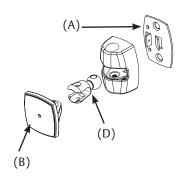


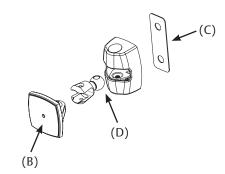
#### **Door Portion**

- (A) \*\*Backup Plate 900314
- (B) Adjustable Armature 994510M-\*
- (C) \*\*Door Plate 998009
- (D) Adjustment Piece 900-3\*

\*\*Not Sold Separately – See Screw Kit

Door portion screws included with Wall/Floor parts.





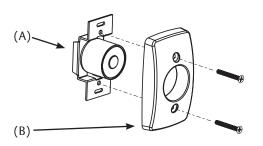
Used With Model 994M, 997M, 998M

#### Wall Portion

- (A) Magnet Assembly and Bracket \*\*998369-3V
- (B) Cover 998315M-\*

\*\*For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.

\*specify finish



#### SCREW KITS

Screw Kit for 994M/997M 998300-\*

# SCREW KITS

Screw Kit for 998M 998303-\*

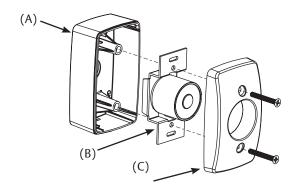
# Used With Model 996M

## Wall Portion

- (A) Surface Mounting Box Housing 996501M-\*
- (B) Magnet Assembly and Bracket \*\*996369-3V
- (C) Cover 998315M-\*

\*specify finish

\*\*For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.



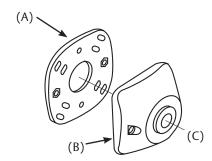
SCREW KITS Screw Kit for 996M 996325-\*



<sup>\*</sup>specify finish

#### Wall Portion

- (A Base Plate 999105
- (B) Cover 999055-\*
- (C) Magnet \*\*996219-3V



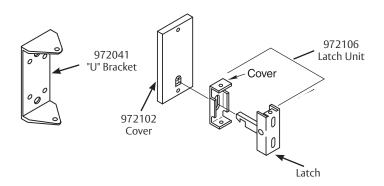
SCREW KITS Screw Kit for 999M 999318-\*

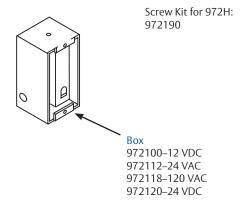
\*specify finish

\*\*For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.

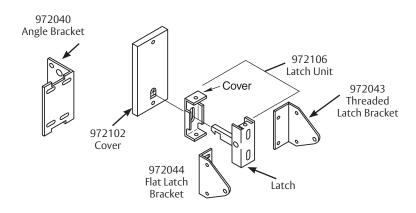


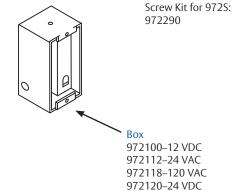
# Used With Model 972H



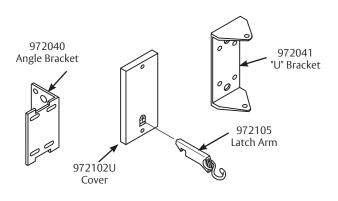


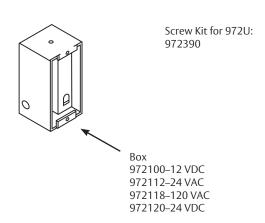
# Used With Model 972S





# Used With Model 972U

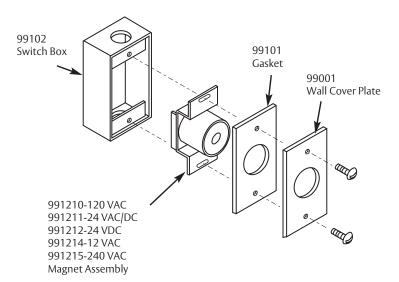




\*specify finish



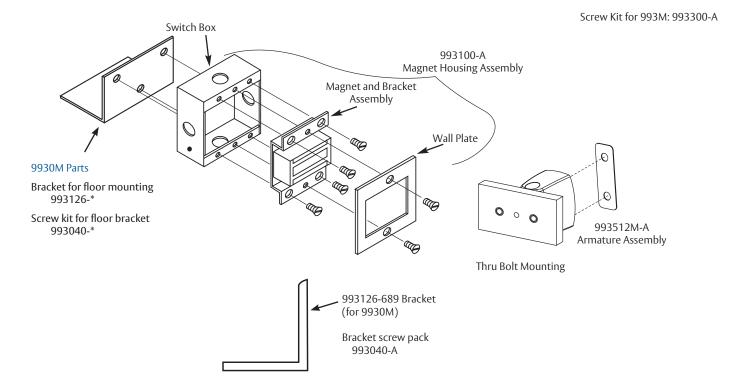
# Wall Portion



Screw Kit for 991M: 990300-\*

\*specify finish

# Used With Model 993M/9930M





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#### CONTACT US AT:

Rixson® 3000 Highway 74 East Monroe, NC 28112 Tel: 800-457-5670 Fax: 800-221-0489

ASSA ABLOY Door Security Solutions Canada 160 Four Valley Drive

Vaughan, Ontario, L4K 4T9 Canada

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