



SECURITY WARE PARTS CATALOG

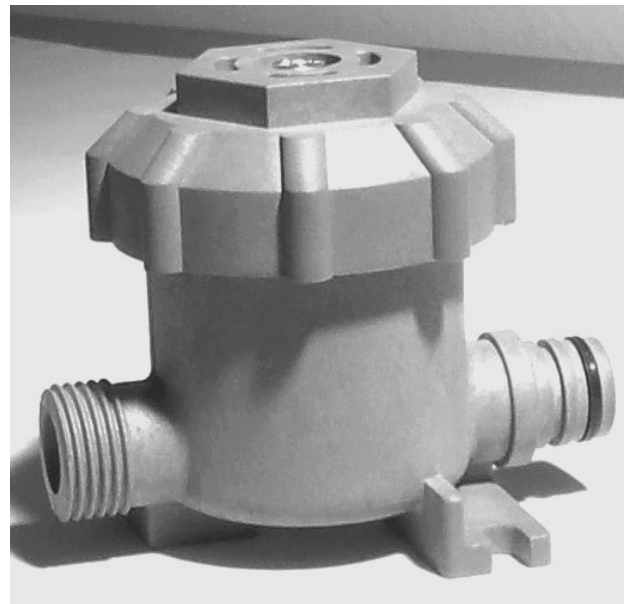
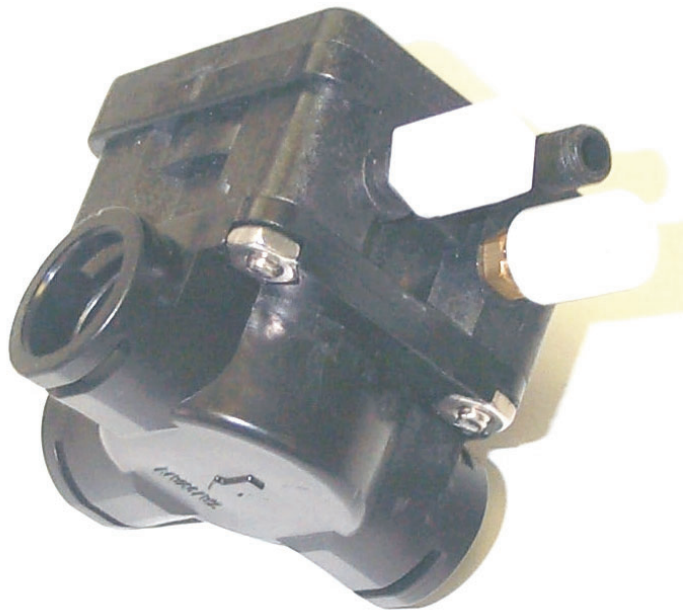


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GENERAL TERMS AND CONDITIONS OF SALE

PRICING, QUOTATIONS AND ORDERS

Price list are subject to change without notice. Consult the factory for current pricing. Quoted prices are guaranteed for 30 days from date of the quote. The order must ship 3 months from the date the order is accepted. A written purchase order is required by the factory on all orders. No purchase order is effective until it is accepted by the factory. An order verification will be issued upon acceptance of the purchase order. This verification will be the governing document. The Buyer must advise the factory in writing of any noncompliance with the purchase order. Any such advisement constitutes a new purchase order, which must be accepted by the factory. Change orders must also be formally accepted with the issuance of a new order verification and are subject to additional pricing. Once an order verification has been issued, the order is considered binding and cannot be canceled without Metcraft's written approval. Canceled orders will be subject to a cancellation charge. Orders with indefinite ship dates (i.e. hold for approval, will advise etc.) have no status. All information required by factory must be provided by the Buyer before a binding purchase order will be accepted.

SPECIFICATION REQUIREMENTS

All designs are subject to change without notice. Unless otherwise stated in the purchase order, goods will be furnished of the design in effect at the time the order is filled. Every effort will be made to quote on goods, which are equal, or superior to those specified. Metcraft will provide submittals sheets but cannot guarantee approval by architect/engineer/owner. When goods are approved as submitted, the limit of Metcraft's responsibility is to provide the goods as approved. Field dimensions are the responsibility of the Buyer and must be given to Metcraft in writing with Buyer's signature.

PAYMENT AND TAXES

If the order verification reflects terms, such terms are subject to credit approval prior to shipment. Check must be dated and postmarked by date-required. Payment must be based on invoice date; not date merchandise or invoice is received. All terms of payment or conditions of sale on purchase order that are contradictory to Metcraft's payment terms will not apply. If Buyer defers delivery of goods, goods will be considered shipped on the date scheduled and payment in full is due according to terms on order verification. Any additional cost Metcraft incurs for such delay will be the responsibility of Buyer. Minimum invoice charges will be enforced. If exemption from sales taxation is claimed, a sales tax exemption certificate must be received with the written purchase order. Metcraft reserves the right to request from Buyer all required information needed to file a preliminary notice for a mechanics lien on order to perfect a lien at a future time if deemed necessary.

FREIGHT AND DELIVERY TERMS

All shipments are F.O.B. origin at Buyer's risk. Freight terms are stated on order verification. All shipping weights are estimates only and are not guaranteed. Metcraft reserves the right to designate the freight carrier. Shipping dates are not guaranteed. Metcraft is not liable for any loss or damage arising out of delay in delivery of any goods due to causes beyond its control. When an order is scheduled and in production, changes in shipping date can only be made by written notice on the condition that any charges incurred will be charges to Buyer and rescheduling will only be made on the basis of factory convenience. Items must be shipped within 3 months from date of quote unless this period has been extended in writing by factory.



GENERAL TERMS AND CONDITIONS OF SALE

CLAIMS AND SHORTAGES

The Buyer must file all claims for losses and damages in shipment; provided however, Metcraft will, if requested in writing, file such claims if Buyer has complied with all of the following within five working days after receipt of shipment:

- 1. Inspects shipment immediately upon receipt.*
- 2. Have shipment inspected by delivering carrier for losses & damages.*
- 3. Files inspection report with carrier and sends copy to factory.*

All claims for failure to receive shipment must be reported in writing to Metcraft within 30 days of invoice date. All claims for shortages must be reported in writing to Metcraft within 14 days of shipment.

RETURN OF GOODS

All items are manufactured per specification. The return of any goods is based on Metcraft's discretion. No goods shall be returned without written return materials authorization (R.M.A.) from factory. Requests for R.M.A.'s must be made within 60 days of shipment. To receive an R.M.A., the Buyer must supply the invoice number and date. Terms of the return are listed on Metcraft's R.M.A. when it is issued.

WARRANTIES

Goods manufactured by Metcraft are warranted to be free from defects in workmanship and material for a period of one year from date of shipment. Metcraft must receive written notice from buyer of any defects promptly after discovery and within a one year period. Within a reasonable time after such notification, Metcraft will, at its sole option, repair or replace defective parts. This is the Buyer's exclusive remedy for breach of warranty. Metcraft will under no circumstances be responsible for consequential, incidental or special damages based upon breach of warranty, breach of contract, negligence, strict tort or any other legal theory. The statute of limitation within which any claims can be filed against Metcraft is one year.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, TITLE AND FITNESS FOR A PARTICULAR PURPOSE

The failure of Metcraft to insist upon the strict performance of the terms and conditions of sale shall not constitute or be construed as a waiver or relinquishment of Metcraft's rights thereafter to enforce any such term or condition or any other term or condition. Metcraft's order verification shall be construed under and governed by the Missouri Uniform Commercial Code and such laws of the state of Missouri as may be applicable.

NO AGENT OR REPRESENTATIVE OF METCRAFT IS AUTHORIZED TO MAKE ANY EXCEPTIONS TO THESE TERMS AND CONDITIONS OF SALE. IF LEGAL ACTION IS NECESSARY TO ENFORCE ANY OF THESE TERMS AND CONDITIONS OF SALE, THE CUSTOMER WILL BE RESPONSIBLE FOR ANY COURT COSTS AND REASONABLE ATTORNEY'S FEES.



Before You Throw That Old Fixture Away, Why Not Try a Guaranteed Fix?

After several years of use and abuse, the performance of some security plumbing fixtures declines rapidly. You can try to repair the fixture yourself or call an outside contractor. But in either case, you're usually faced with great difficulties because repairing these fixtures is different than repairing normal plumbing.

How many times have you wasted hours and money on a temporary fix or a repair that didn't work? Or worse yet, how many times have you thrown up your hands in frustration and scrapped the fixture altogether? With shrinking funds and increased operating costs, many prisons, jails and other facilities are searching for new ways to reduce their maintenance costs.

A Cost-Saving Alternative

The next time you are faced with the repair or potential replacement of an expensive plumbing fixture, consider this cost-savings alternative first. Metcraft, the innovator in stainless steel plumbing fixtures, is once again breaking new ground with the Metcraft Repair Program - the only guaranteed repair program on the market today.

With nearly two decades of experience, Metcraft has qualified employees who can quickly evaluate your situation. If the fixture can be repaired, Metcraft will completely repair the fixture to function with "like new" performance. For a fraction of the cost of a new fixture.

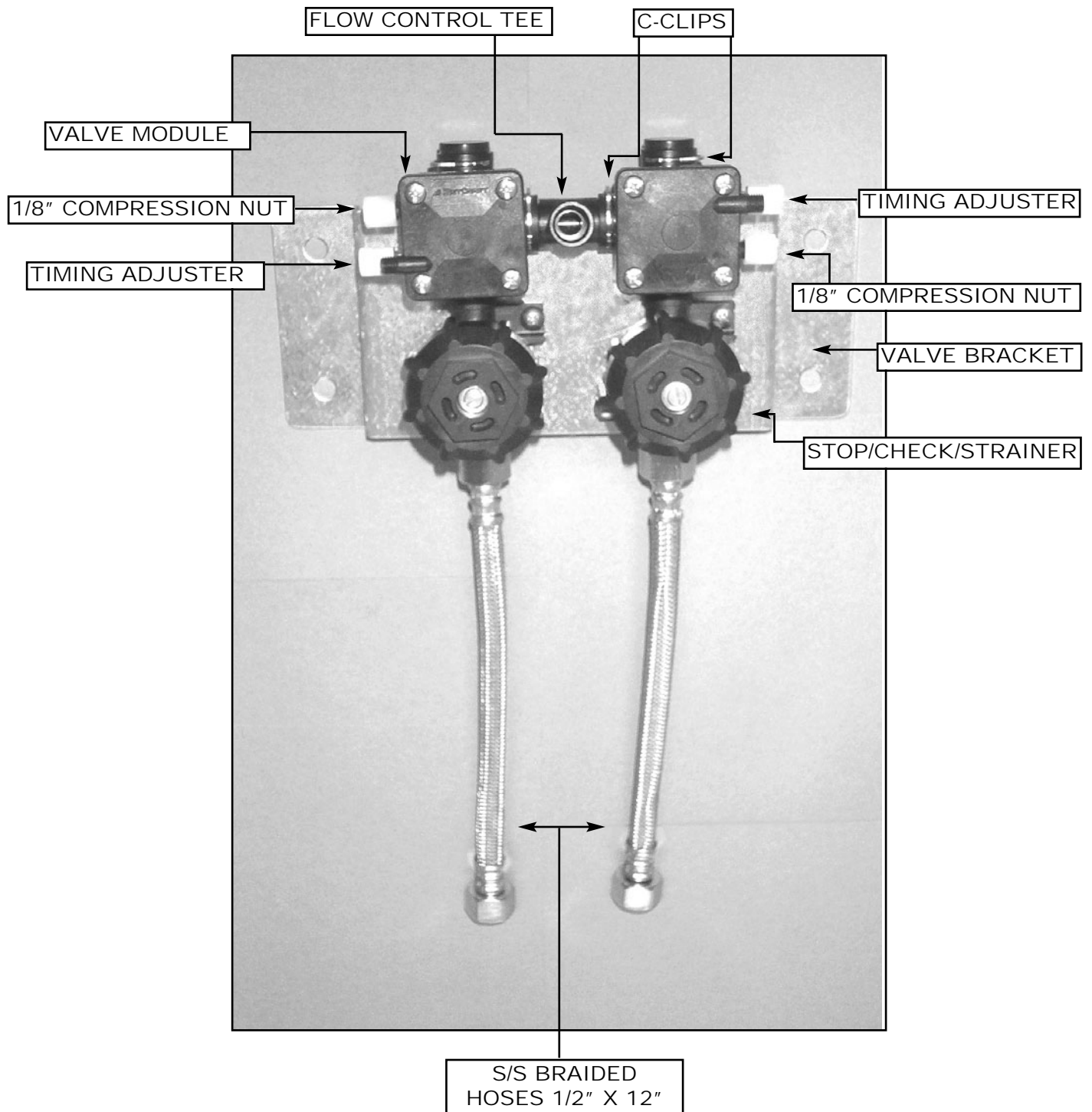


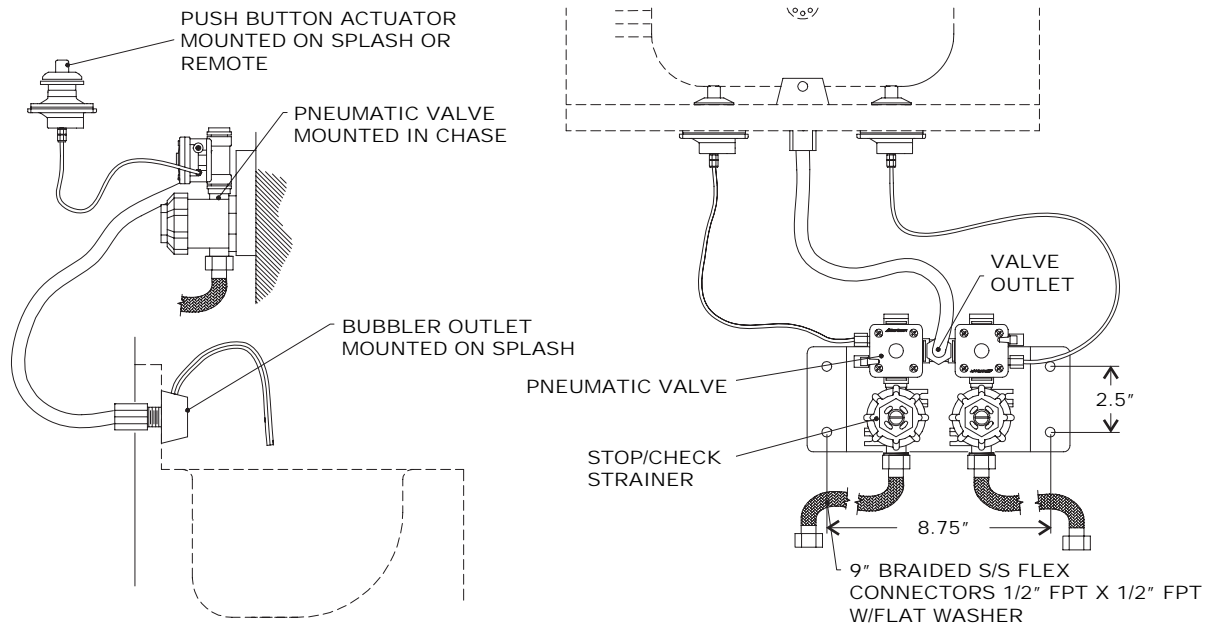
Plus, it doesn't matter who manufactured your original fixture. Whether your fixture was made by Acorn, Bradley, Willoughby, Metcraft or any other stainless steel fixture manufacturer. Metcraft can fix it. What's more, Metcraft will guarantee the repaired unit with a new fixture warranty making this a no risk program for your institution. And like all Metcraft products and services, the Metcraft Repair Program has one of the fastest turn-around times on the market today.

[†] Valves not covered in this warranty



A300 SERIES PNEUMATIC VALVE





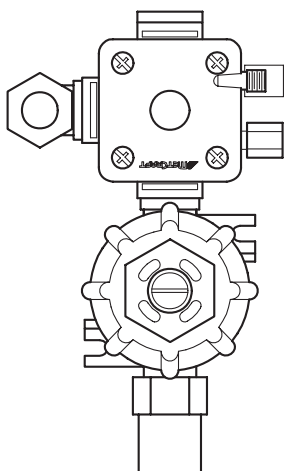
1. FLUSH ALL SUPPLY LINES THOROUGHLY.
2. MAKE SURE POLYETHYLENE TUBING IS CLEAR OF ANY DEBRIS OR WATER. DO NOT USE KINKED TUBING.
3. ASSEMBLE PUSH BUTTONS AND BUBBLER SPOUT TO FIXTURE BACKSPLASH BEFORE SECURING THE FIXTURE TO THE WALL. INSTALL BUBBLER INLET FITTING TO THE BUBBLER INLET.
4. MOUNT THE VALVE AND BRACKET ASSEMBLY TO THE WALL. CHOOSE A LOCATION WHERE FUTURE ACCESS FOR SERVICE AND ADJUSTMENT OF THE VALVE WILL BE CONVENIENT, BEARING IN MIND THAT THE VALVE MUST BE LOCATED WITHIN 7 FEET OF THE PUSH BUTTON OPERATORS AND BUBBLER OUTLET.
5. A BRAIDED FLEXIBLE CONNECTOR HAS BEEN CONNECTED TO THE SUPPLY OF THE STOP/CHECK STRAINER. CONNECT FREE END OF FLEXIBLE CONNECTOR TO SUPPLY CONNECTION.
6. CONNECT 1/2" OD POLYETHYLENE TUBING TO THE BUBBLER HEAD AND THE VALVE OUTLET. COMPRESSION CONNECTIONS SHOULD BE ONLY TIGHTENED 1/4 TO 1/2 TURN PAST HAND TIGHT. OVER-TIGHTENING WITH A WRENCH MAY CAUSE DAMAGE. MAKE SURE TUBING IS FULLY INSERTED INTO SOCKET BEFORE TIGHTENING .
7. CONNECT 1/8" OD TUBING TO PUSH BUTTON DIAPHRAGM ASSEMBLIES AND TO TUBE CONNECTION ON THE SIDE OF THE VALVE OPERATOR CLOSEST TO THE TIMING ADJUSTMENT. MAKE SURE TUBING IS FULLY INSERTED IN SOCKET ON VALVE OPERATOR END BEFORE TIGHTENING SMALL PLASTIC NUT.
*SMALL NUT SHOULD BE FINGER TIGHTENED ONLY. DO NOT USE A WRENCH ON THESE NUTS.
8. OPEN SUPPLY STOP(S) AND CHECK THE VALVE CONNECTIONS FOR LEAKS.
9. ACTUATE PUSH BUTTONS SEVERAL TIMES TO CLEAR AIR FROM THE VALVES AND TUBING. HOLD HAND IN FRONT OF BUBBLER TO CONTAIN SQUIRTLING CAUSED BY AIR BUBBLES. CHECK WATER TUBING AT VALVE AND BUBBLER FOR POSSIBLE LEAKS AGAIN.
10. ADJUST TIMED CYCLE OF VALVES AS NEEDED, FOLLOWING INSTRUCTIONS GIVEN BELOW.

DO NOT TIGHTEN THE 4 SCREWS THAT HOLD THE VALVE TOP TO THE VALVE BASE ANY TIGHTER THAN 18" INCH POUNDS TORQUE.

DO NOT TIGHTEN THE 4 SCREWS ON THE CAP OF THE STOP/CHECK STRAINER ASSEMBLY MORE THAN 18 INCH POUNDS TORQUE.

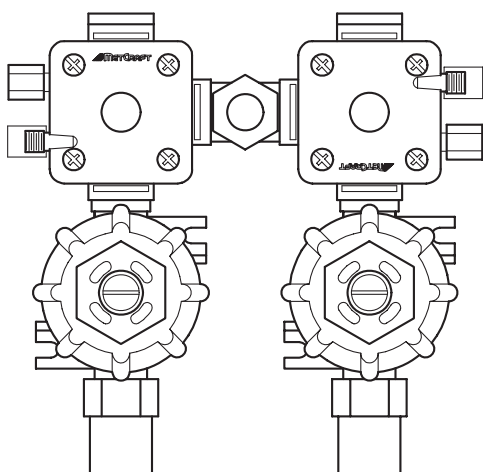
DO NOT USE PIPE THREAD COMPOUNDS OR SEALANTS ON ANY THREADS CONNECTING TO THE VALVES, VALVE OPERATORS AND TUBING NUTS. THREAD SEALANTS ARE NOT INTENDED FOR THESE CONNECTIONS AND MAY CONTRIBUTE TO VALVE DAMAGE OR MALFUNCTIONS AND THEREBY VOID THE WARRANTY.

THE TIMING CYCLE CAN BE ADJUSTED USING THE TIMING ADJUSTMENT LOCATED NEXT TO THE 1/8" AIR TUBE CONNECTION ON THE SIDE OF THE VALVE OPERATOR. OLDER STYLE VALVES HAVE A SMALL SCREWDRIVER SLOT ON THE END OF THE ADJUSTER. NEW STYLE VALVES ARE ADJUSTED USING THE PLASTIC THUMBWHEEL AIR VALVE COVER. TIMING CLOCKWISE INCREASES THE CYCLE; COUNTER-CLOCKWISE DECREASES THE CYCLE. ADJUSTMENTS SHOULD BE MADE IN SMALL INCREMENTS TO ACHIEVE BEST RESULTS. AS THE CYCLE INCREASES ADJUSTMENTS BECOME INCREASINGLY SENSITIVE. TIMED CYCLES IN EXCESS OF 2 MINUTES REQUIRE INFINITELY SMALL ADJUSTMENTS.



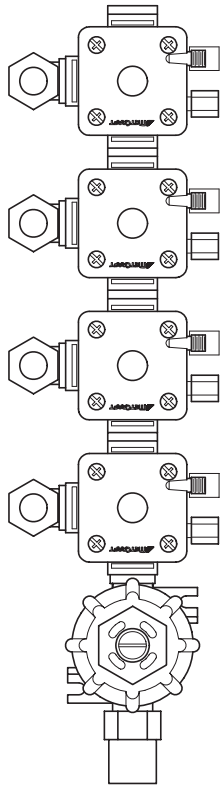
A311
SINGLE
TEMPERATURE
PNEUMATIC
VALVES

PART #	DESCRIPTION
24376	LAVATORY W/PUSHBUTTON .5 GPM
23890	LAVATORY W/O PUSHBUTTON .5 GPM
24356	SHOWER W/PUSHBUTTON 2.5 GPM
24157	SHOWER W/O PUSHBUTTON 2.5 GPM



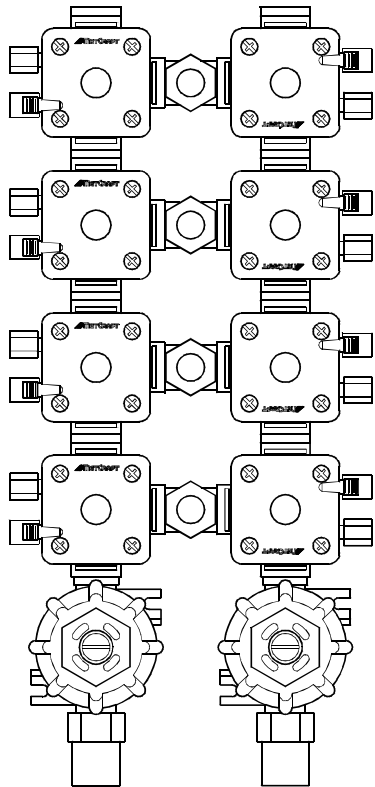
A312
DUAL
TEMPERATURE
PNEUMATIC
VALVES

PART #	DESCRIPTION
24305	LAVATORY W/PUSHBUTTON .5 GPM
23891	LAVATORY W/O PUSHBUTTON .5 GPM
24427	SHOWER W/PUSHBUTTON 2.5 GPM
24426	SHOWER W/O PUSHBUTTON 2.5 GPM



A313 SINGLE TEMPERATURE PNEUMATIC VALVE MANIFOLDED

PART #	VALVE - DESCRIPTION
24395	LAVATORY (2) MANIFOLDS W/PUSHBUTTON
24428	LAVATORY (2) MANIFOLDS W/O PUSHBUTTON
24394	LAVATORY (3) MANIFOLDS W/PUSHBUTTONS
24399	LAVATORY (3) MANIFOLDS W/O PUSHBUTTONS
24270	LAVATORY (4) MANIFOLDS W/PUSHBUTTONS
24429	LAVATORY (4) MANIFOLDS W/O PUSHBUTTONS
24425	SHOWER (2) MANIFOLDS W/PUSHBUTTONS
24220	SHOWER (2) MANIFOLDS W/O PUSHBUTTONS

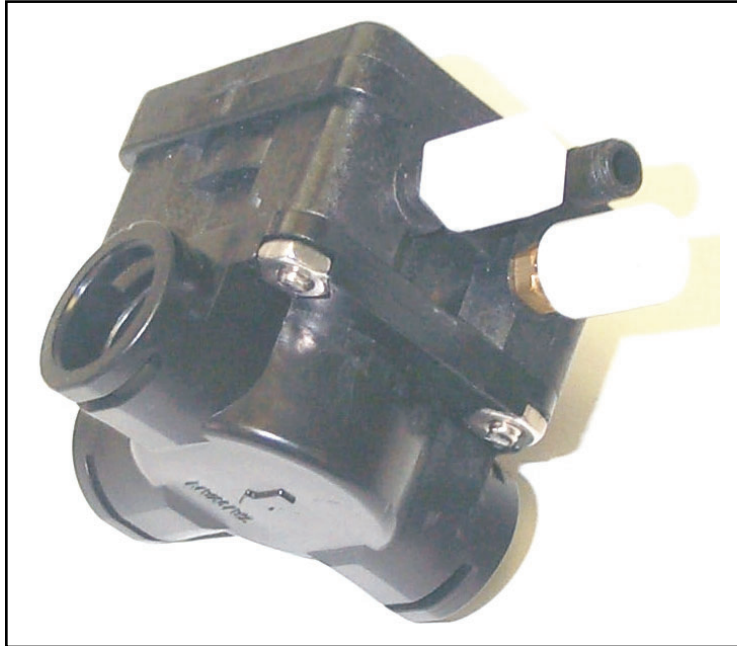


A314 DUAL TEMPERATURE PNEUMATIC VALVE MANIFOLDED

PART #	VALVE - DESCRIPTION
24398	LAVATORY (2) MANIFOLDS W/PUSHBUTTONS
24215	LAVATORY (2) MANIFOLDS W/O PUSHBUTTONS
24397	LAVATORY (3) MANIFOLDS W/PUSHBUTTONS
24216	LAVATORY (3) MANIFOLDS W/O PUSHBUTTONS
24396	LAVATORY (4) MANIFOLDS W/PUSHBUTTONS
24113	LAVATORY (4) MANIFOLDS W/O PUSHBUTTONS
24424	SHOWER (2) MANIFOLDS W/PUSHBUTTONS
24423	SHOWER (2) MANIFOLDS W/O PUSHBUTTONS

FOUR (4) FIXTURE MANIFOLD SHOWN

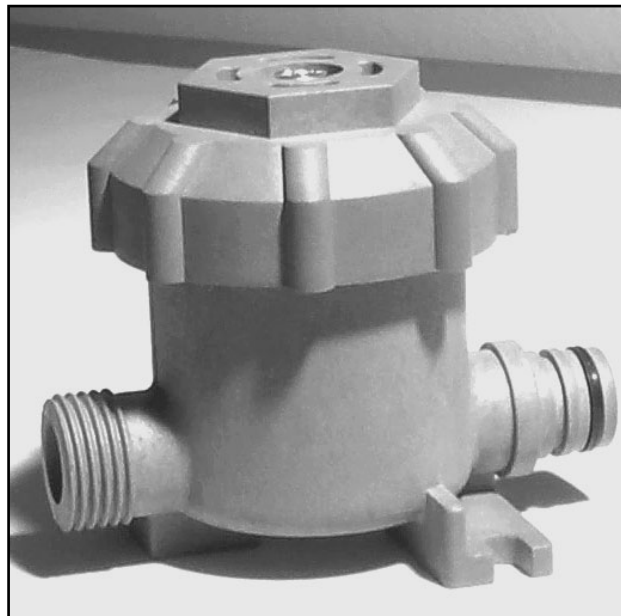


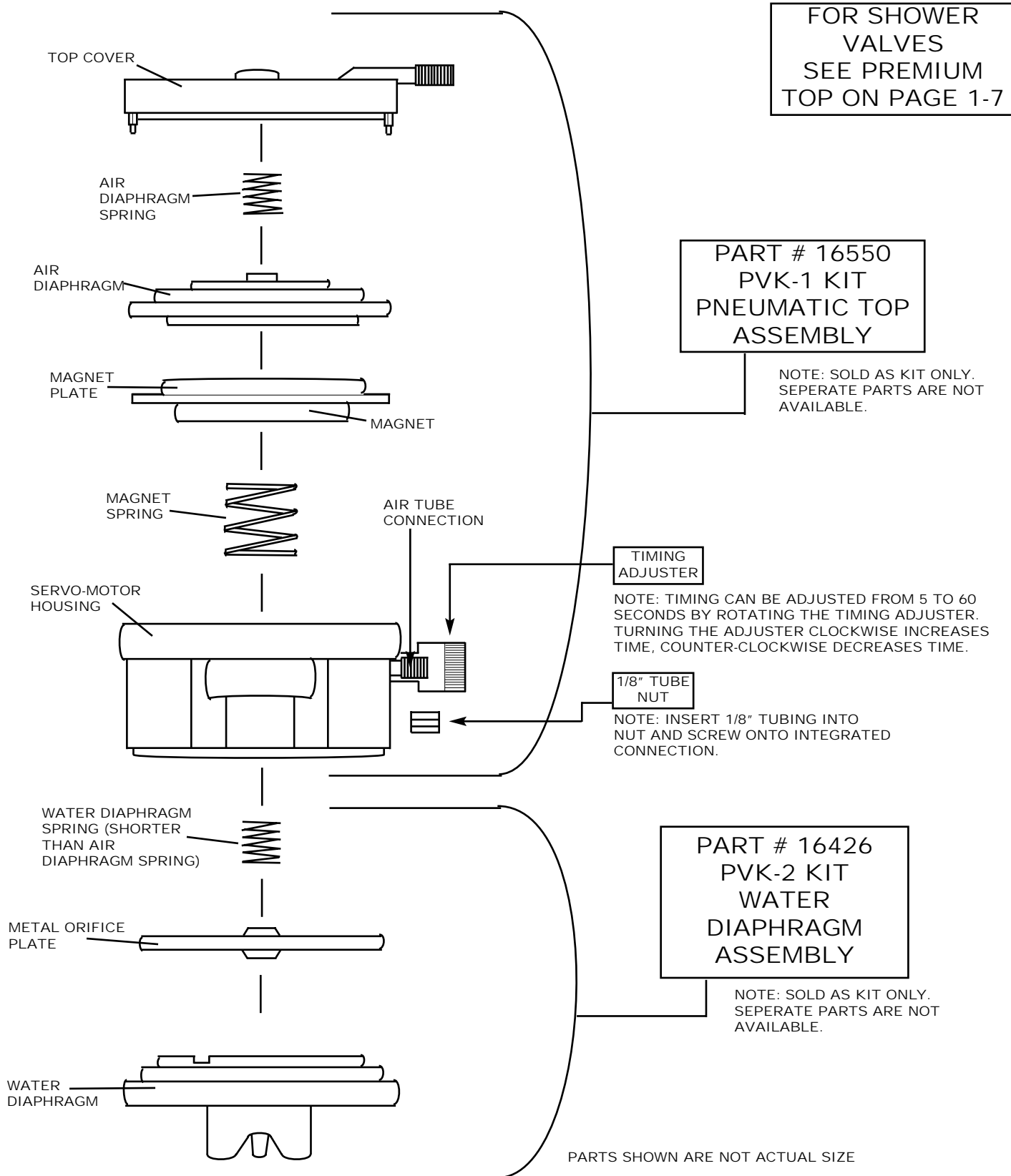


FLOW THRU VALVE MODULE
PART # 30001

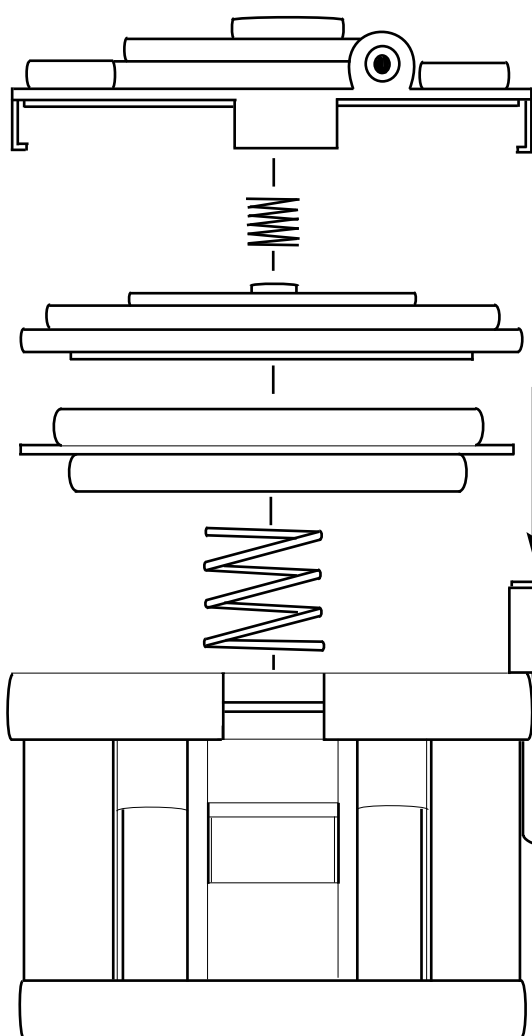
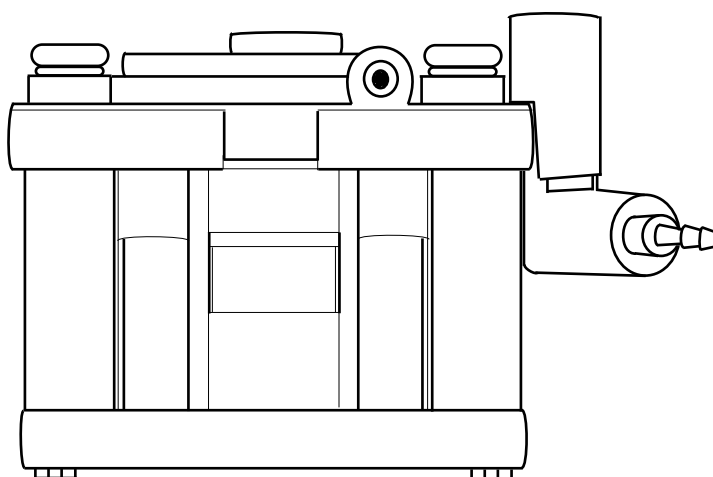


STOP CHECK / STRAINER
PART # 30030





PART # 29291
PREMIUM TOP ASSEMBLY
(SHOWERS)



TIMING
ADJUSTER
SCREW

NOTE: TIMING CAN BE ADJUSTED FROM 5 TO 60 SECONDS BY USING A SMALL FLAT-HEAD SCREWDRIVER TO TURN ADJUSTER SCREW. CLOCKWISE TO INCREASE TIME AND COUNTER CLOCKWISE TO DECREASE TIME.

1/8" BARBED
HOSE FITTING

PUSH 1/8" PLASTIC TUBING OVER THE END OF BARB FITTING. PUSH ON UNTIL PLASTIC TUBING MEETS WITH THE SHOULDER BEHIND THE BARB.

PARTS SHOWN ARE NOT ACTUAL SIZE.
INDIVIDUAL PARTS ARE NOT SOLD SEPERATELY.

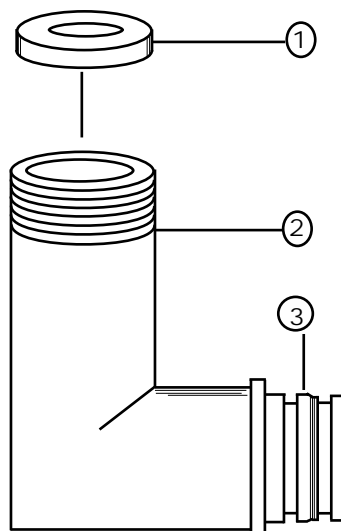
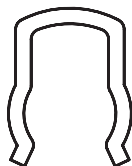


INDUSTRIES INCORPORATED

.5 GPM FLOW CONTROL
ASSEMBLY
PART # 27090

NO.	QTY.	DESCRIPTION
①	1	.5 GPM FLOW CONTROL
②	1	ELBOW
③	1	QUAD RING

S/S C-CLIP
PART # 30003

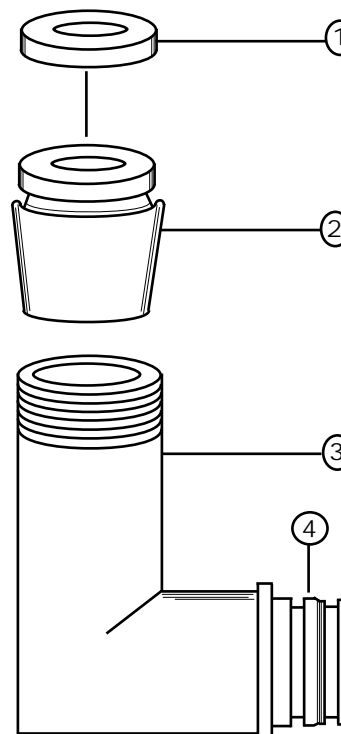


C-CLIPS ARE NOT INCLUDED IN FLOW CONTROL
ELBOW ASSEMBLIES. IF REQUIRED, ORDER ONE
CLIP PER ELBOW.

2.5 GPM FLOW CONTROL
ASSEMBLY
PART # 27088

NO.	QTY.	DESCRIPTION
①	1	2.5 GPM FLOW CONTROL
②	1	FLOW CONTROL RETAINER
③	1	ELBOW
④	1	QUAD RING

S/S C-CLIP
PART # 30003

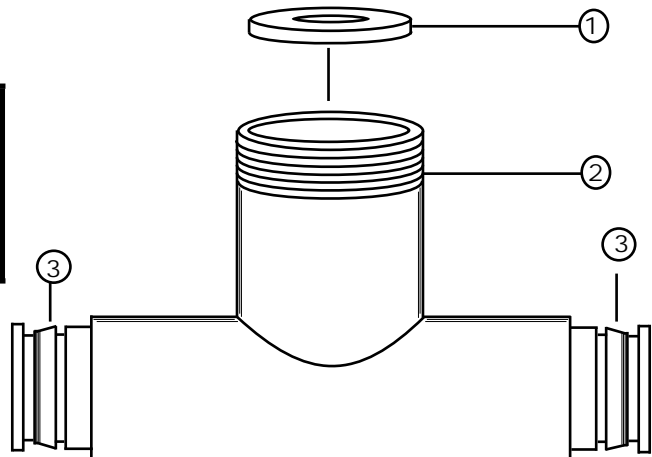
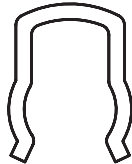


C-CLIPS ARE NOT INCLUDED IN FLOW CONTROL
ELBOW ASSEMBLIES. IF REQUIRED, ORDER ONE
CLIP PER ELBOW.

.5 GPM FLOW CONTROL
ASSEMBLY
PART # 27089

NO.	QTY.	DESCRIPTION
①	1	.5 GPM FLOW CONTROL
②	1	TEE
③	2	QUAD RING

S/S C-CLIP
PART # 30003

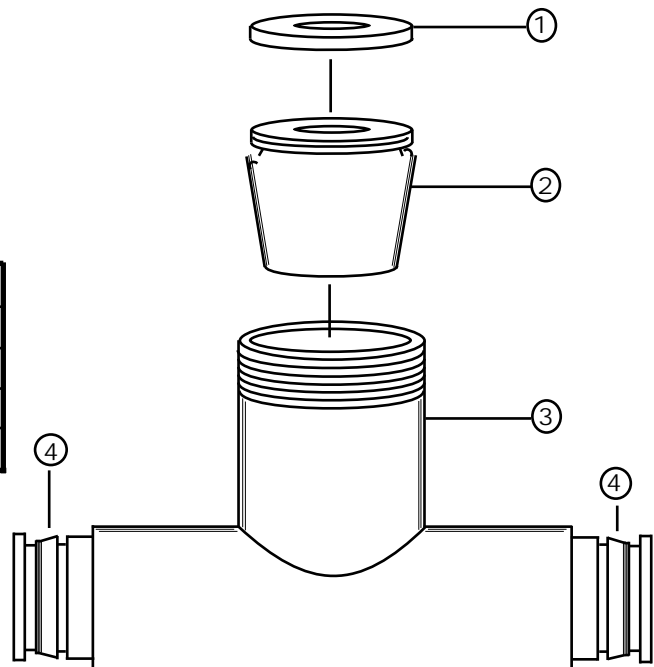
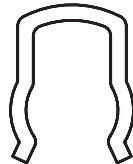


C-CLIPS ARE NOT INCLUDED IN FLOW CONTROL TEE ASSEMBLIES. IF REQUIRED, ORDER 2 CLIPS PER TEE.

2.5 GPM FLOW CONTROL
ASSEMBLY
PART # 27087

NO.	QTY.	DESCRIPTION
①	1	FLOW CONTROL RETAINER
②	1	2.5 GPM FLOW CONTROL
③	1	TEE
④	2	QUAD RING

S/S C-CLIP
PART # 30003



C-CLIPS ARE NOT INCLUDED IN FLOW CONTROL TEE ASSEMBLIES. IF REQUIRED, ORDER 2 CLIPS PER TEE.



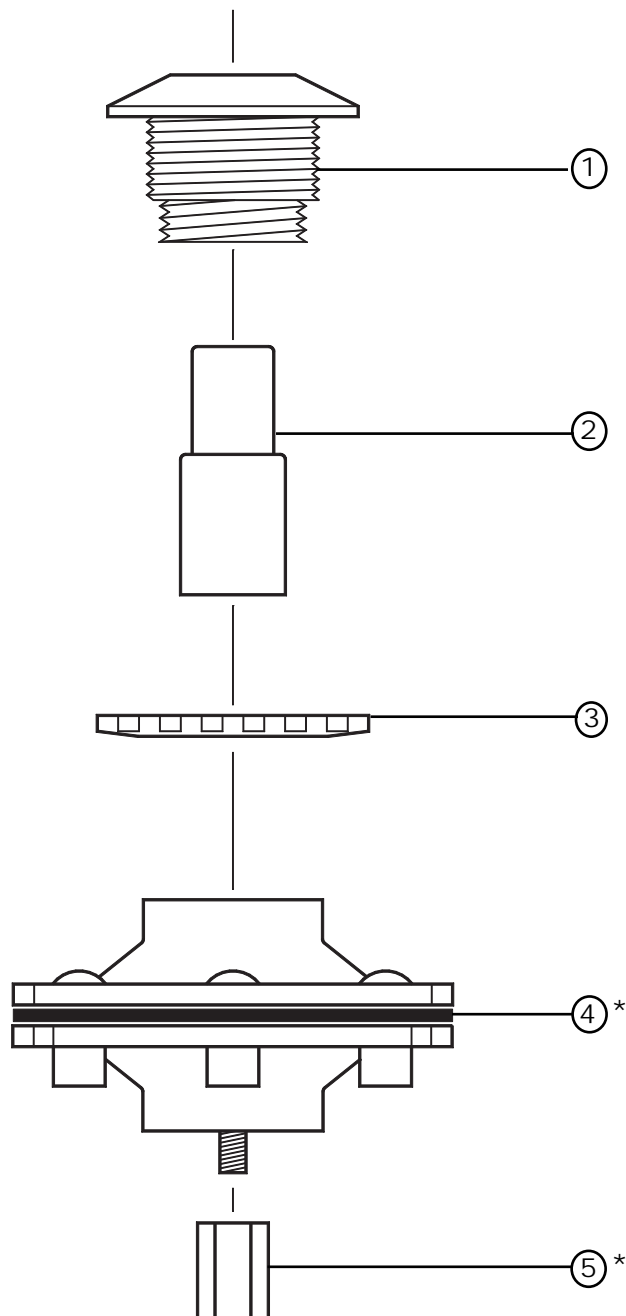
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PUSH BUTTON ASSEMBLY #16791

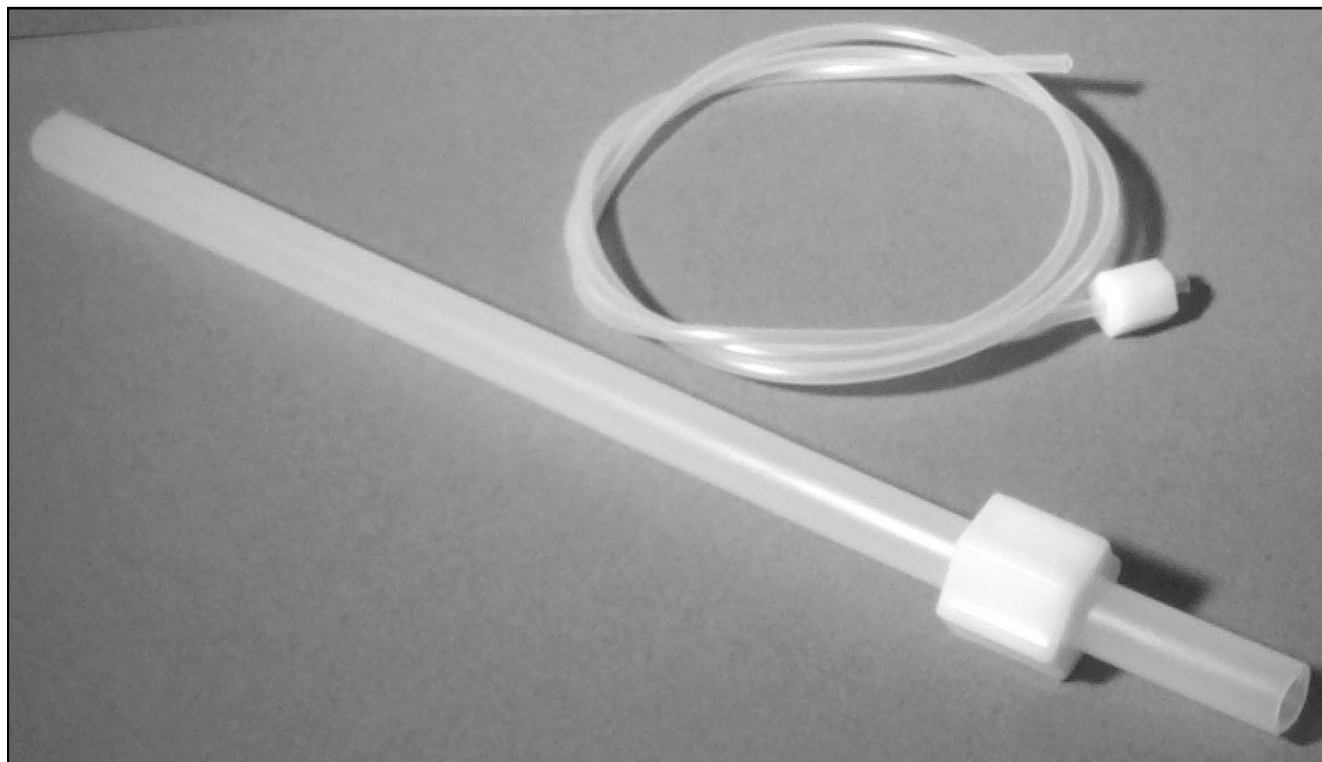
NO.	PART #	DESCRIPTION
①	16385	ESCUTCHEON
②	16394	PUSH BUTTON
③	14777	LOCK NUT
* ④	17065	POD ASSEMBLY
* ⑤	30025	NUT FOR 1/8" TUBE

*THE 30025 1/8" NUT IS INCLUDED
IN THE #17065 POD ASSEMBLY. IT IS
ALSO AVAILABLE AS AN INDIVIDUAL
PART.

PARTS SHOWN ARE NOT ACTUAL SIZE



PLASTIC TUBING AND NUTS



1/8" TUBING - PART# 14325

1/2" TUBING - PART # 14336

1/8" NUT - PART # 30025

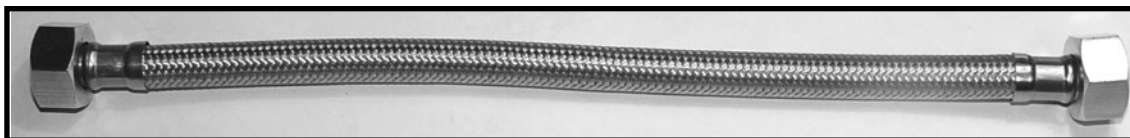
1/2" NUT - PART # 30026

TUBING AND NUTS SOLD SEPERATELY TUBING IS SOLD PER LINEAR FOOT

STAINLESS STEEL BRAIDED HOSES

PART #25769 1/2" X 12"

PART #16129 1/2" X 20"

**Metcraft**
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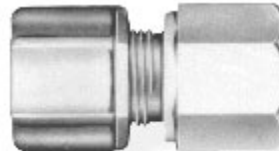
COMPRESSION ADAPTER FITTINGS FOR POLYETHYLENE TUBING

TUBING x MALE PIPE



1/4"OD x 1/8"MIP - PART # 21917 (AFH)
1/4"OD x 3/8"MIP - PART # 29807
1/2"OD x 1/4"MIP - PART # 15894 (B5,B6)
1/2"OD x 3/8"MIP - PART # 15948 (B1,B3)
1/2"OD x 1/2"MIP - PART # 15843 (PSH)

TUBING x FEMALE PIPE



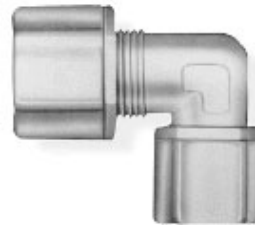
1/2"OD x 3/8"FIP - PART # 17632
1/2"OD x 1/2"FIP - PART # 14338

TUBING x MALE PIPE



1/4"OD x 3/8"MIP - PART # 17475
1/2"OD x 3/8"MIP - PART # 16841 (B1)
1/2"OD x 1/2"MIP - PART # 17030 (PSH)

TUBING x FEMALE PIPE



1/2"OD x 3/8"FIP - PART # 25842
1/2"OD x 1/2"FIP - PART # 18600

TUBING NUT
w/ BUILT-IN SLEEVE

1/8" NUT - PART # 30025
1/2" NUT - PART # 30026



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SYMPTOM: VALVE WILL NOT SHUT OFF.

1. REMOVE 1/8" AIR TUBE FROM FITTING BESIDE TIMER. IF THE VALVE SHUTS OFF AFTER A SHORT TIME, TURN THE TIMER ADJUSTMENT COUNTER-CLOCKWISE SEVERAL TURNS. RE-CONNECT THE TUBING MAKING SURE THE CONNECTION IS SEALED PROPERLY (TUBING WILL NOT SLIP OR COME OFF IF TUGGED GENTLY). RE-ADJUST TIMER FOR DESIRED CYCLE TIME.
2. TURN OFF WATER TO VALVE. REMOVE THE VALVE TOP BY REMOVING THE (4) SCREWS SECURING IT. NOTE THE POSITION OF THE TUBE CONNECTOR AND TIMER SO THE VALVE TOP CAN BE PROPERLY RE-ASSEMBLED IN THE SAME POSITION.
REMOVE VALVE OPERATOR EXPOSING THE WATER CHAMBER OF THE VALVE. CHECK THE RUBBER DIAPHRAGM ASSEMBLY FOR POSSIBLE DEBRIS. CHECK THE DIAPHRAGM TO BE SURE THE RUBBER IS PROPERLY SEATED INTO THE PLASTIC POST. THE PLASTIC POST HAS A GROOVE THAT THE RUBBER DIAPHRAGM FITS INTO AND THERE SHOULD NOT BE ANY BULGES IN THE RUBBER WHEN IT IS PROPERLY SEATED.
CHECK THE HOLE THROUGH THE PLASTIC POST TO BE SURE IT'S FREE OF DEBRIS. TURN THE DIAPHRAGM ASSEMBLY OVER AND FIND THE SMALL CIRCLE NEAR THE EDGE OF THE RUBBER. THERE IS A SMALL HOLE IN THE MIDDLE OF THE CIRCLE THAT SHOULD BE FREE OF DEBRIS. RINSE THE ASSEMBLY WITH CLEAN WATER TO REMOVE ANY DEBRIS. ALSO, RINSE THE ORIFICE PLATE AND THE SEPERATOR CUP IN THE VALVE TOP, MAKING SURE THE SMALL SPRING IN THE SEPERATOR CUP (ABOVE THE ORIFICE PLATE) IS NOT DROPPED OR LOST. IF ANY PART OF THE DIAPHRAGM IS DAMAGED, REPLACE THE ENTIRE DIAPHRAGM ASSEMBLY USING PART # 16426 (PVK-2 DIAPHRAGM KIT). CLEAN ANY DEBRIS FROM THE VALVE BASE AND THE VALVE SEAT BEFORE RE-ASSEMBLING. RE-ASSEMBLE THE VALVE AND ADJUST THE TIMING TO DESIRED CYCLE LENGTH.

SYMPTOM: VALVE WILL NOT OPEN OR DELIVER WATER.

1. MAKE SURE THE WATER SUPPLY IS TURNED ON.
2. REMOVE THE 1/8" PLASTIC TUBING FROM THE BACK OF THE PUSHBUTTON DIAPHRAGM AND SUCK ON THE END. IF WATER FLOWS, THE VALVE IS OPERATING PROPERLY BUT THERE IS AN AIR LEAK IN THE TUBING CONNECTIONS, THE TUBING OR THE PUSHBUTTON DIAPHRAGM. ALSO, IT IS POSSIBLE THAT THE TIMER HAS BEEN OPENED (TURNED COUNTER-CLOCKWISE) SO FAR THE THE VACUUM CAN NOT BE HELD. CLOSE THE TIMER (TURN CLOCKWISE) TO SEE IF THE VALVE WILL OPERATE. IF YES, ADJUST TIMING FOR DESIRED CYCLE.
3. CHECK THE FLOW CONTROL ORIFICE LOCATED IN THE VALVE OUTLET FITTING TO BE SURE IT IS NOT BLOCKED BY DEBRIS. IF BLOCKED, CLEAR DEBRIS BY BLOWING AIR THROUGH IT FROM THE TUBING END OF THE FITTING. DO NOT FORCE ANY TOOLS THROUGH THE ORIFICE AS THIS MAY DAMAGE OR DISTORT IT AND CAUSE IMPROPER OPERATION.
4. CHECK THE PUSHBUTTON ACTUATOR DIAPHRAGM FOR LEAKAGE BY REMOVING THE DIAPHRAGM FROM THE BACK OF THE PUSHBUTTON AND FROM THE AIR TUBING. WHILE HOLDING YOUR FINGER OVER THE END OF THE TUBING CONNECTION TO SEAL IT, PUSH THE RUBBER DIAPHRAGM TOWARD THE BACK USING YOUR FINGER IN PLACE OF THE PUSHBUTTON. IF THE TUBING FITTING IS SEALED PROPERLY WITH YOUR FINGER, THE RUBBER DIAPHRAGM SHOULD BE HELD BACK AWAY FROM THE FRONT OF THE DIAPHRAGM HOUSING. IF IT RETURNS TO THE FRONT OF THE HOUSING, IT IS NOT HOLDING A VACUUM AND MUST BE REPLACED. THIS TEST SHOULD BE REPEATED SEVERAL TIMES BEFORE DECIDING THE DIAPHRAGM MUST BE REPLACED AS IT IS DIFFICULT TO HOLD YOUR FINGER OVER THE HOLE IN THE TUBE FITTING TO PROPERLY SEAL IT.



SYMPTOM: VALVE WILL ONLY RUN A SHORT TIME AND DOES NOT RESPOND TO TIMER ADJUSTMENT.

THIS IS ONE OF THE MOST COMMON COMPLAINTS. IN MOST CASES, THIS IS A RESULT OF AN AIR LEAK IN THE AIR TUBING CONNECTIONS EITHER AT THE PUSHBUTTON END OR THE VALVE END OF THE TUBING. IF THE TUBING IS CONNECTED USING A WHITE PLASTIC NUT, GENTLY GIVE THE TUBING

A QUICK TUG. IF IT COMES OUT OF THE FITTING, RE-INSERT IT, MAKING CERTAIN IT "BOTTOMS OUT" IN THE FITTING. USING GENTLE FORCE, TIGHTEN THE PLASTIC NUT ONE-QUARTER TURN. REPEAT AS NECESSARY UNTIL TUBING IS HELD TIGHTLY IN PLACE.

IF THE TUBING IS CONNECTED USING A SMALL BRASS NUT (ESPECIALLY ON SHOWERS) ON THE PUSHBUTTON END, IT IS COMMON TO FIND THE NUT HAS BEEN OVER-TIGHTENED. THIS CAUSES THE SEAL BETWEEN THE TUBE FITTING AND THE DIAPHRAGM OR VALVE BODY TO LEAK AIR. OFTEN, LOOSENING THE NUT IS ONLY POSSIBLE BY REMOVING THE FITTING. WHEN RE-INSTALLING THE FITTING, IT IS IMPORTANT TO JUST TIGHTEN THE FITTING FIRMLY. EXCESSIVE FORCE SHOULD NOT BE APPLIED. THE BRASS NUT SHOULD BE SLIPPED OVER THE TUBING END AND THEN THE TUBING IS PUSHED ONTO THE BARBED END FITTING. THE TUBING NUT SHOULD THEN BE TIGHTENED ONLY BY USING THE FINGERS. THE SEAL ON THIS TYPE OF CONNECTION IS EFFECTED ON THE INSIDE OF THE TUBING AND THE BARB ON THE FITTING. THE BRASS NUT SERVES ONLY TO PREVENT THE TUBING FROM INADVERTENTLY BEING PULLED OFF THE BARB. THE BRASS NUT IS NOT DESIGNED TO SEAL THE CONNECTION.

IT SHOULD BE NOTED THAT THE ENDS OF THE 1/8" TUBING SHOULD BE CLOSELY CHECKED FOR SPLITTING OR CUTS. ALSO, INSPECT THE TUBING TO BE SURE THERE ARE NO KINKS OR BENDS TO PROHIBIT AIR FLOW WITHIN THE TUBING. IF THE TUBING IS DAMAGED OR KINKED, IT MUST BE REPLACED. THE ENDS OF THE TUBING SHOULD BE CUT SQUARE FOR BEST RESULTS.

SYMPTOM: BUBBLER SPURTS WATER WHEN PUSHBUTTON IS RELEASED.

WATER SPURTING FROM THE SPOUT WHEN THE PUSHBUTTON IS RELEASED IS CAUSED BY AIR IN THE SUPPLY TUBING TO THE SPOUT. THIS IS A COMMON PROBLEM ON PROJECT START-UPS AND THERE IS NO GOOD OR EASY WAY TO AVOID IT. WHEN A NEW PIPING SYSTEM IS FILLED WITH WATER, POCKETS OF AIR ARE TRAPPED IN THE PIPING. ALSO, NEW WATER HEATING SYSTEMS ADD MORE AIR MOLECULES INTO THE PIPING SYSTEM AS THE WATER IS HEATED. CONSEQUENTLY, THE SPURTING PROBLEM IS MORE PRONOUNCED ON THE WARM WATER SIDE OF A DUAL TEMPERATURE VALVE. OFTEN, THE "MILKY" COLOR SEEN IN WATER COMING FROM THE WARM WATER SIDE IS DUE TO SATURATION WITH TINY AIR BUBBLES. THOROUGH PURGING OF THE PIPING SYSTEM AT EACH TAP WILL RELIEVE SOME OF THESE SYMPTOMS. WITH THE PASSAGE OF TIME, THE WATER SYSTEM WILL STABILIZE AND LESS AND LESS AIR WILL BE FOUND IN THE SYSTEM. AS THIS HAPPENS, THE SPURTING PROBLEM DECREASES AND EVENTUALLY CEASES. HOWEVER, BASED ON WATER CONDITIONS AND USAGE OF A GIVEN WATER SYSTEM, THE PROCESS CAN TAKE SEVERAL WEEKS TO SEVERAL MONTHS FOR CONDITIONS TO STABILIZE.

SOME SUGGESTIONS TO LESSEN THIS PHENOMENA ARE:

1. SYSTEMATICALLY PURGE EACH TAP STARTING WITH THE ONE MOST REMOTELY LOCATED FROM THE SOURCE OF FLOW.
2. LOCATE PNEUMATIC VALVES AS CLOSE AS PRACTICAL TO THE FIXTURES THEY SERVE. NEVER INSTALL A VALVE ABOVE A FIXTURE WITH MORE THAN TEN FEET OF TUBING BETWEEN THE VALVE AND THE VALVE OUTLET AS THIS PRODUCES A "HEAD" PRESSURE AND ACCENTUATES THE SPURTING PROBLEM.



*SYMPTOM: BUBBLER STREAM OVERSHOOTS THE LAVATORY BASIN
(STEADY STREAM).*

1. CHECK THE FLOW CONTROL FITTING TO BE SURE THE FLOW RESTRICTOR IS IN PLACE. THE FLOW RESTRICTOR IS NORMALLY LOCATED INSIDE THE FITTING WHERE THE OUTLET SUPPLY TUBING IS CONNECTED TO THE VALVE. PENAL SPOUTS ARE DESIGNED FOR A RATE OF .5 GPM FLOW RATE PROVIDED BY THIS FLOW RESTRICTOR. FLOW RATE CAN NOT BE ADJUSTED ADEQUATELY USING THE INLET STOPS ON THE VALVE.
2. CHECK THE HOLE IN THE SPOUT OR BUBBLER FOR DEBRIS OR BLOCKAGE. THE OUTLET HOLE OF THE BUBBLER MUST BE CLEAR OF ANY OBSTRUCTION OR PARTIAL OBSTRUCTION TO FORM PROPER HEIGHT ARC. CLEAR ANY DEBRIS INSIDE THE BUBBLER HEAD BY DISCONNECTING THE SUPPLY TUBE FROM THE FITTING AND BLOWING AIR BACK THROUGH THE BUBBLER. DO NOT USE TOOLS OR PROBES THROUGH THE HOLE ON THE BUBBLER AS THEY MAY DAMAGE THE FINISH OR DISTORT THE HOLE, CAUSING AN ERRATIC STREAM. RE-ASSEMBLE THE VALVE AND ADJUST TIMING TO DESIRED CYCLE LENGTH.

SYMPTOM: BUBBLER STREAM DOES NOT FORM A HIGH ENOUGH ARC.

1. CHECK THE FLOW CONTROL FITTING FOR BLOCKAGE. CLEAR ANY DEBRIS WITH AIR PRESSURE OR FLUSHING WITH CLEAN WATER. DO NOT USE PROBES TO CLEAR BLOCKAGE AS THIS MAY CAUSE DAMAGE TO THE FLOW RESTRICTOR.
2. CHECK PLASTIC SUPPLY TUBING FOR POSSIBLE KINKS THAT WOULD RESTRICT WATER FLOW.
3. MAKE SURE INLET STOPS ARE OPEN.
4. TURN OFF INLET STOPS AND INSPECT STRAINER SCREENS FOR BLOCKAGE OR MINERAL BUILD-UP. USE CLEAN WATER TO RINSE AWAY DEBRIS. IF MINERAL BUILD-UP IS SEVERE ON THE SCREEN, USE A COMMERCIAL MINERAL SOLVENT, (LIKE CALCISOLVE OR LIMERASE) TO CLEAN IT. THOROUGHLY RINSE THE SCREEN BEFORE RE-INSTALLING IT.



The following section deals with the retrofit of existing fixture valves. The Metcraft TEMPUS II valve was discontinued in 1993. This valve was manufactured for Metcraft and the manufacturer is no longer a viable source for repair parts or valve components. Metcraft offers two retrofit cartridges for this valve. No other parts of the valve are available.

PART NO. #19811 NON-METERING CARTRIDGE KIT

This cartridge has been adapted to provide a relatively inexpensive non-metering cartridge for the Tempus II valves. When this cartridge is used, it is necessary to utilize the looped operating lever assembly and cap nut from the old brass Tempus cartridge being replaced, along with the existing push rods and push rod ends. New operating levers, push rods and push rod ends are no longer available.

The old Tempus II valve received a minor change in its casting during its last few years of production. This change made the opening at the top of the cartridge bore slightly larger than the previous casting. As a result, the older castings will not accept the #19811 retro-fit cartridge until the upper "O" ring is moved against the small rim at the top of the cartridge. Once this is done, the retro-fit cartridge can be pushed down into the body. The rim at the top of the cartridge compresses the upper "O" ring of the cartridge against the valve body forming the upper seal. It is important that when the cap nut is screwed onto the valve body, it is not tightened to the point where it shears this "O" ring. Only very moderate tightening is required to seal the cartridge.

PART NO. 30033 PNEUMATIC METERING CARTRIDGE

This cartridge was developed to provide a replacement for the old brass metering cartridges originally used for the TEMPUS II valve. When this cartridge is chosen, it is necessary to convert the pushbuttons for pneumatic operation of the cartridge. The existing mechanical push rods and push rod ends are removed and replaced with a push button adapter kit.

The EXTENDED push button adapter kit (Part No. #20348) is primarily used for lavatory valves. It adapts the existing push button assembly to operate a diaphragm pod which, in turn, operates the #30033 pneumatic cartridge. The kit contains all parts needed to convert either of the two push button types used on the Tempus II valve. The parts list illustrates the two push button types. Parts not required can be discarded.

The CLOSE COUPLED push button adapter kit (Part No. #19777) is primarily used for shower applications where there is adequate access to the back of the panel where the push button is mounted. As with the extended push button adapter kit, parts are included for either of the two push button types used on the Tempus II valve. Unused parts can be discarded after the conversion is made.

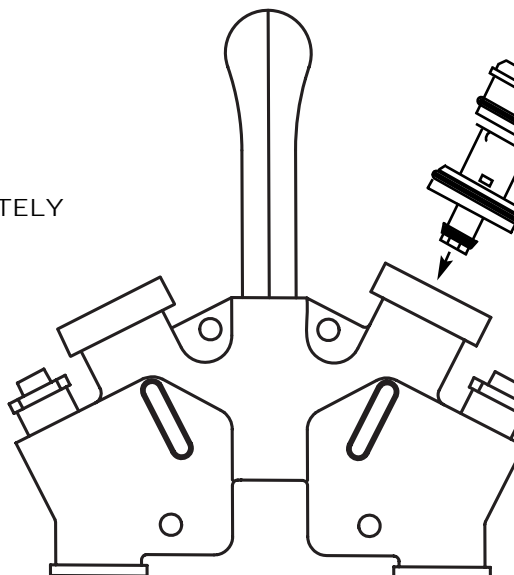


PART # 19811
NON-METERING
CARTRIDGE
KIT

QTY.	DESCRIPTION
1	FIBER WASHER
1	NYLON SPACER
1	CAP NUT
1	NON-METERING CARTRIDGE

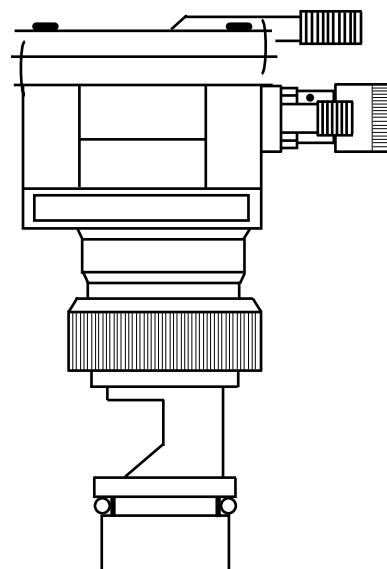
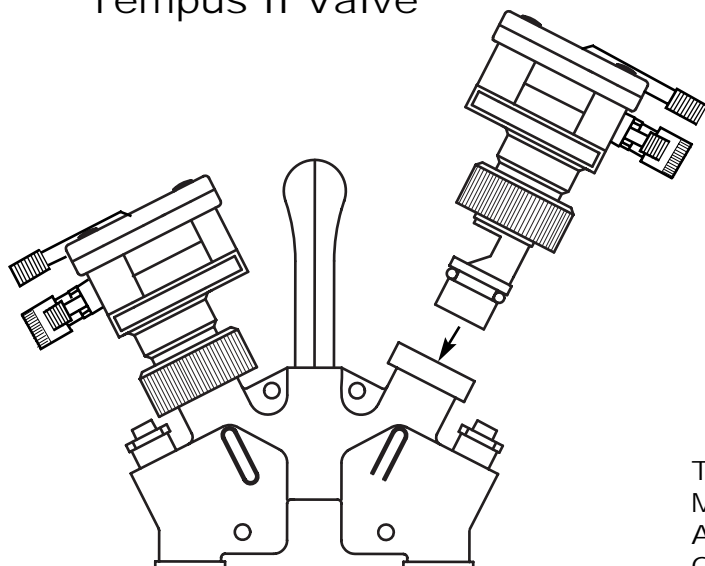
INDIVIDUAL PARTS ARE NOT SOLD SEPERATELY

Tempus II Valve



Tempus II Valve

PART # 30033

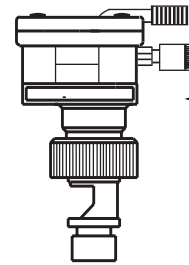
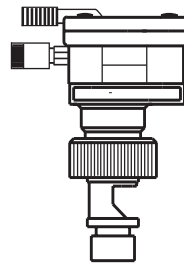


THE 30033 PNEUMATIC METRO-FIT REPLACE-
MENT CARTRIDGE IS USED WITH PUSHBUTTON
ADAPTER KITS TO CONVERT MECHANICALLY
OPERATED VALVES TO AIR OPERATED VALVES.



APPLICATION RECOMMENDED FOR LAVATORIES

NO.	PART #	DESCRIPTION
①	15375	1/2" GALVINIZED COUPLING
②	20520	1/2" X 13-11/16" NYLON ROD
③	20515	1/2" X 12-11/16" NYLON ROD
④	20543	1/2" X 14 NYLON ROD
⑤	18783	ACORN ADAPT. PB-MC DIAPHRAGM
⑥	20347	1/2" X 12" PVC NIPPLE
⑦	17065	DIAPHRAGM ASSEMBLY
⑧	18723	1/8" X 36 PLASTIC TUBING

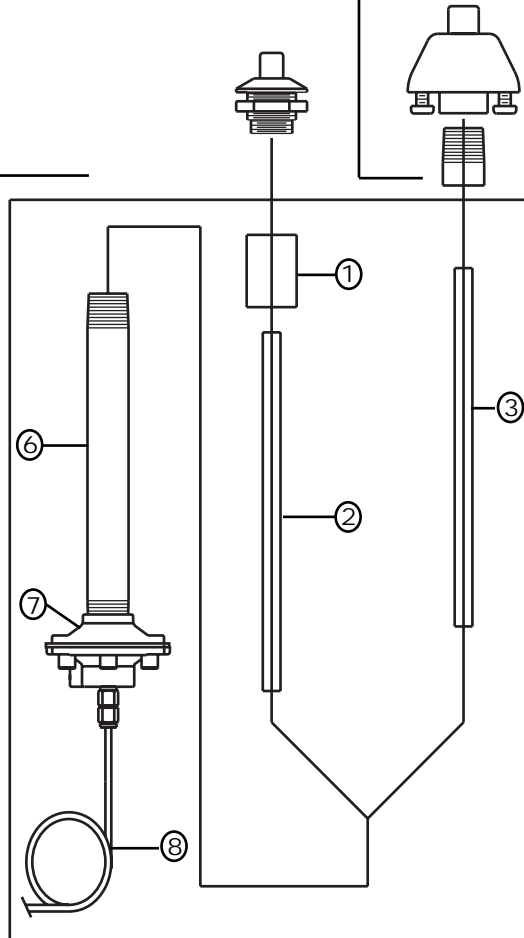


PART # 30033
HOT & COLD
PNEUMATIC
CARTRIDGE
ASSEMBLY

TEMPUS II

EXISTING METCRAFT
ESCUTCHEON & BUTTON
ASSEMBLY
(1991-PRESENT)

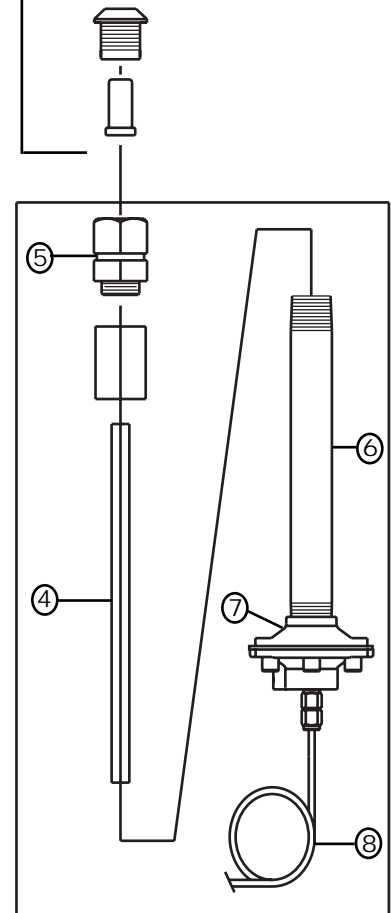
EXISTING METCRAFT
ESCUTCHEON & BUTTON
ASSEMBLY
(1983-1991)



ASSEMBLY PART
#20348

ACORN PENAL-TROL™
or WILLOUGHBY SC/ME
MECHANICAL VALVES

EXISTING ESCUTCHEON &
BUTTON ASSEMBLY

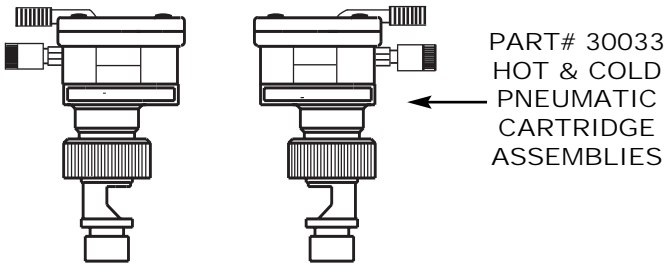


ASSEMBLY PART
ACORN #20542
WILLOUGHBY #30347



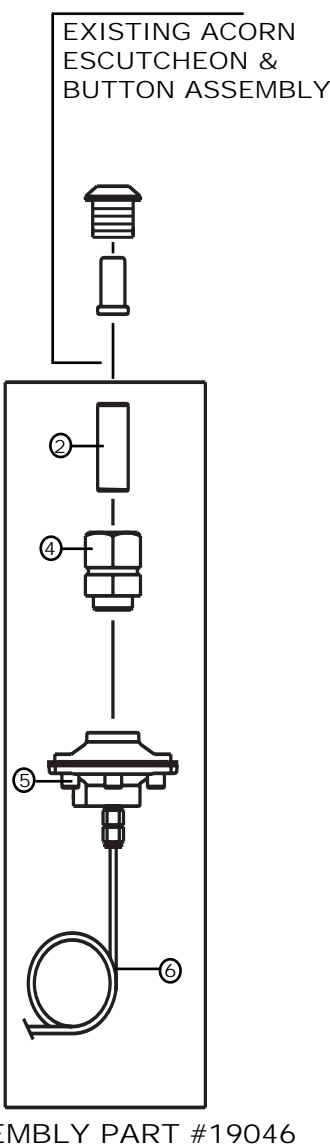
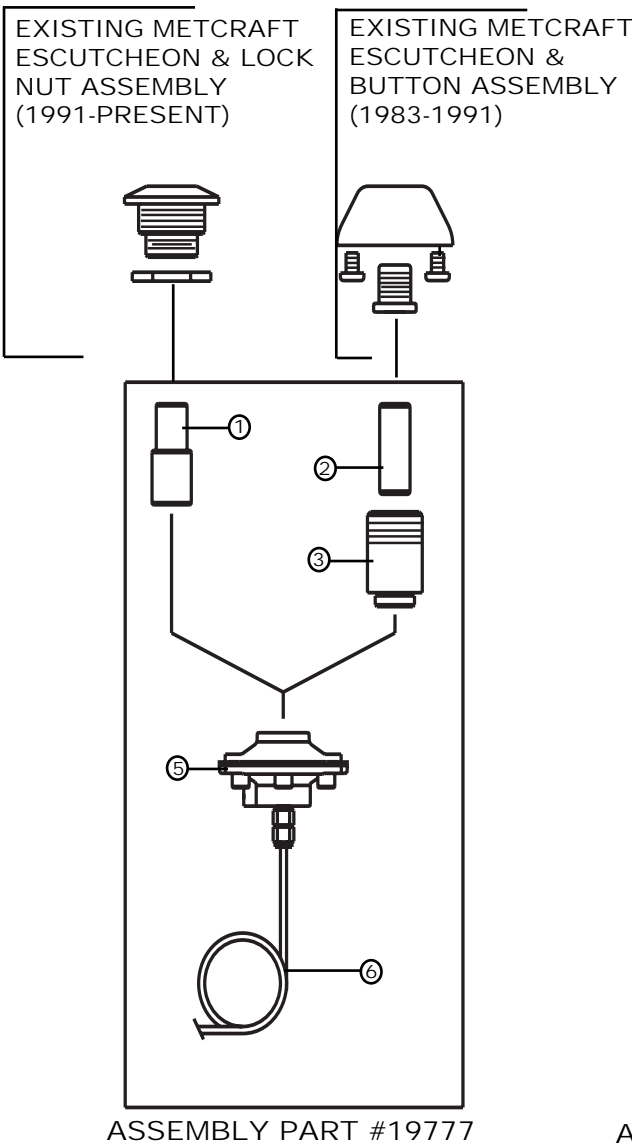
APPLICATION RECOMMENDED FOR SHOWERS

NO.	PART #	DESCRIPTION
①	16394	PNEUMATIC PUSH BUTTON
②	18784	PLUNGER ACORN
③	16906	ADAPTER
④	18783	ACORN ADAPT. PB-MC DIAPHRAGM
⑤	17065	DIAPHRAGM ASSEMBLY
⑥	18723	1/8" X 36" PLASTIC TUBING



TEMPUS II

ACORN PENAL-TROL™



Over the years pneumatic actuated valves have grown in popularity in the correctional industry and the need to update existing fixtures with pneumatic valves has grown.

This type of retrofit is complicated by several factors.

Push buttons and spouts differ greatly from one fixture to another. In some cases, like vitreous china fixtures, the spout is an integral part of the backsplash and is often designed for a different rate of flow to form an adequate stream for use as a drinking bubbler. Hole sizes and shapes for mounting pushbuttons vary not only in size but also in shape from one fixture to another. Often, the push button assemblies themselves also serve to anchor the fixture to the wall utilizing threaded sleeves with pushrods inside them. On stainless steel fixtures, the push buttons assemblies are generally secured to the backsplash. However, some stainless steel fixtures and cast aluminum fixtures also use valve anchor pipe sleeves to secure the top portion of the fixture to the wall. These variations make retrofit of existing fixtures with pneumatic valves a real challenge. The valve assembly itself is not a problem since the pneumatic valve can be mounted in the pipe chase at any convenient location near the fixture. The challenge is to match the existing push button actuators to operate the pneumatic valve.

To meet this challenge, Metcraft has developed a number of adapter plates to which our standard pneumatic push button can be mounted. These adapter plates are designed to cover a variety of hole sizes and shapes. In addition, our retrofit valve assembly can be provided with pipe anchor sleeves that hold the fixture backsplash to the wall. The push button actuator diaphragm that operates the pneumatic valves is screwed onto the end of these push button assemblies.

In cases where the existing push button assemblies are not used for securing the fixture to the wall, it may be desirable to adapt the existing push button assemblies with push button adapter kits. Often this is less labor intensive and makes the retrofit easier.

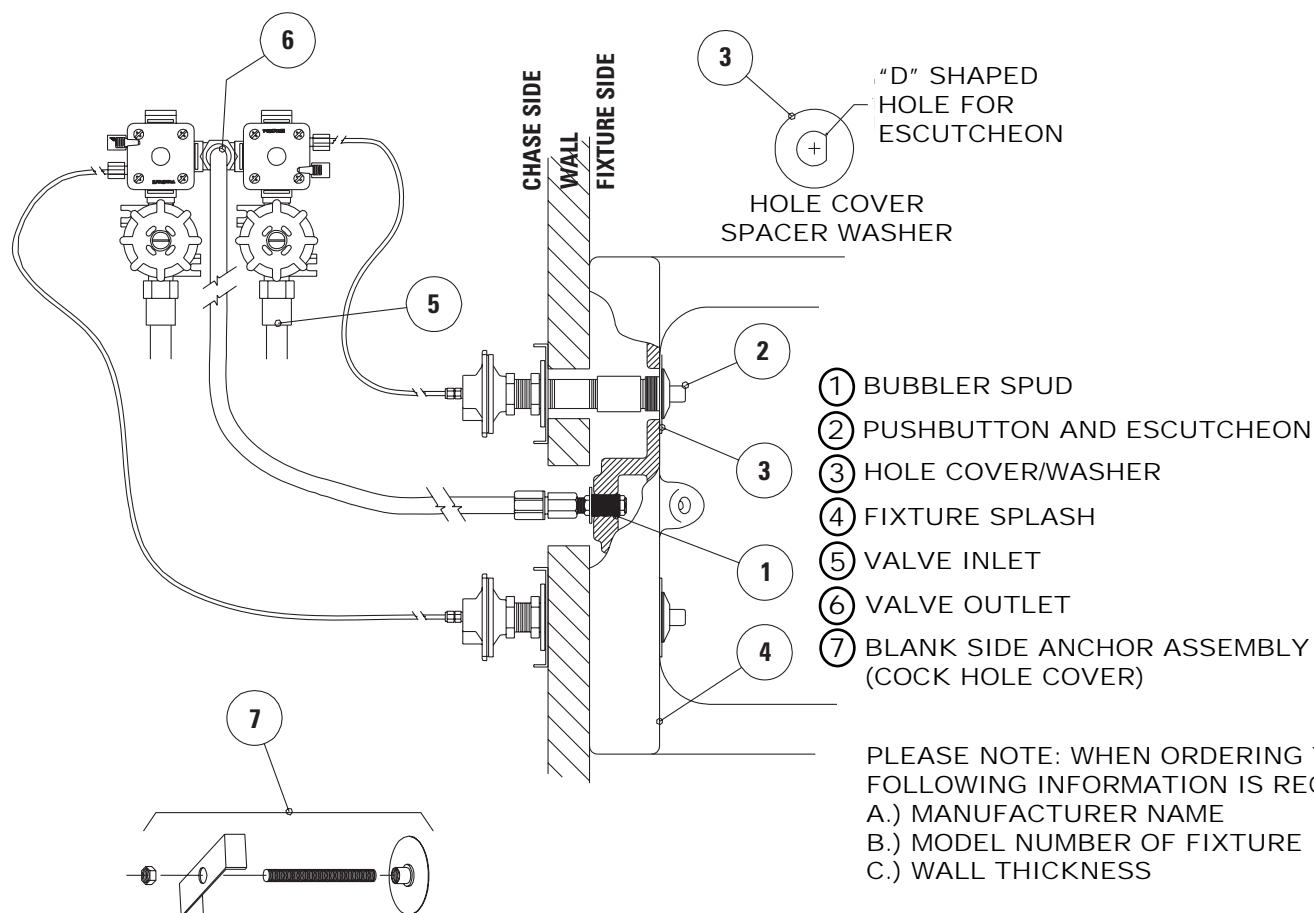
To properly retrofit existing fixtures, it is vital that complete information concerning existing conditions be provided. To aid in determining this information, the form below should be completed and provided to Metcraft with your inquiry.

Information Required:

1. Manufacturer model of lavatory being used _____
2. Backsplash Thickness _____
3. Actual (Face to Face) Wall Thickness _____
4. Shape and Size of push button hole in backsplash _____



RETRO-FIT VALVES FOR CHINA FIXTURES

A341 SINGLE TEMPERATURE, SINGLE FIXTURE

PNEUMATIC RETRO-FIT VALVE ASSEMBLY, SINGLE TEMPERATURE, SINGLE FIXTURE.

A342 DUAL TEMPERATURE, SINGLE FIXTURE

PNEUMATIC RETRO-FIT VALVE ASSEMBLY, DUAL H/C TEMPERATURE, SINGLE FIXTURE.

A343 SINGLE TEMPERATURE, MANIFOLDED

PNEUMATIC RETRO-FIT VALVE ASSEMBLY, SINGLE TEMPERATURE, MANIFOLDED FOR TWO FIXTURES.

A344 DUAL TEMPERATURE, MANIFOLDED

PNEUMATIC RETRO-FIT VALVE ASSEMBLY, DUAL H/C TEMPERATURE, MANIFOLDED FOR TWO FIXTURES.

THE METCRAFT RETROFIT PNEUMATIC VALVE ASSEMBLIES ARE DESIGNED TO REPLACE EXISTING VALVES ON VITREOUS CHINA AND ALUMINUM PRISON FIXTURES OR TO COMPLEMENT THE INSTALLATION OF NEW VITREOUS CHINA PRISON FIXTURES. THESE VALVES ARE FURNISHED WITH PUSH BUTTON ASSEMBLIES, ACTUATORS AND STEEL ANCHORING NIPPLES. THE STEEL ANCHORING NIPPLES ARE DESIGNED TO PROVIDE SUPPORT FOR SECURING THE FIXTURE TO THE WALL. 2-3/8" (60mm) OD PUSH BUTTON ESCUTCHEON PLATES ARE FURNISHED TO ADEQUATELY COVER THE LARGER PUSH BUTTON HOLES FOUND IN THESE FIXTURES. A BUBBLER SPUD WITH AN EXPANDING RUBBER SEAL IS PROVIDED TO MAKE THE CONNECTION BETWEEN THE BUBBLER SUPPLY TUBING AND THE INTEGRAL BUBBLER

SPOUT ASSOCIATED WITH THESE FIXTURES. VALVES CAN BE OPERATED EITHER AS QUICK CLOSING, METERING OR A COMBINATION OF BOTH OPERATING MODES.

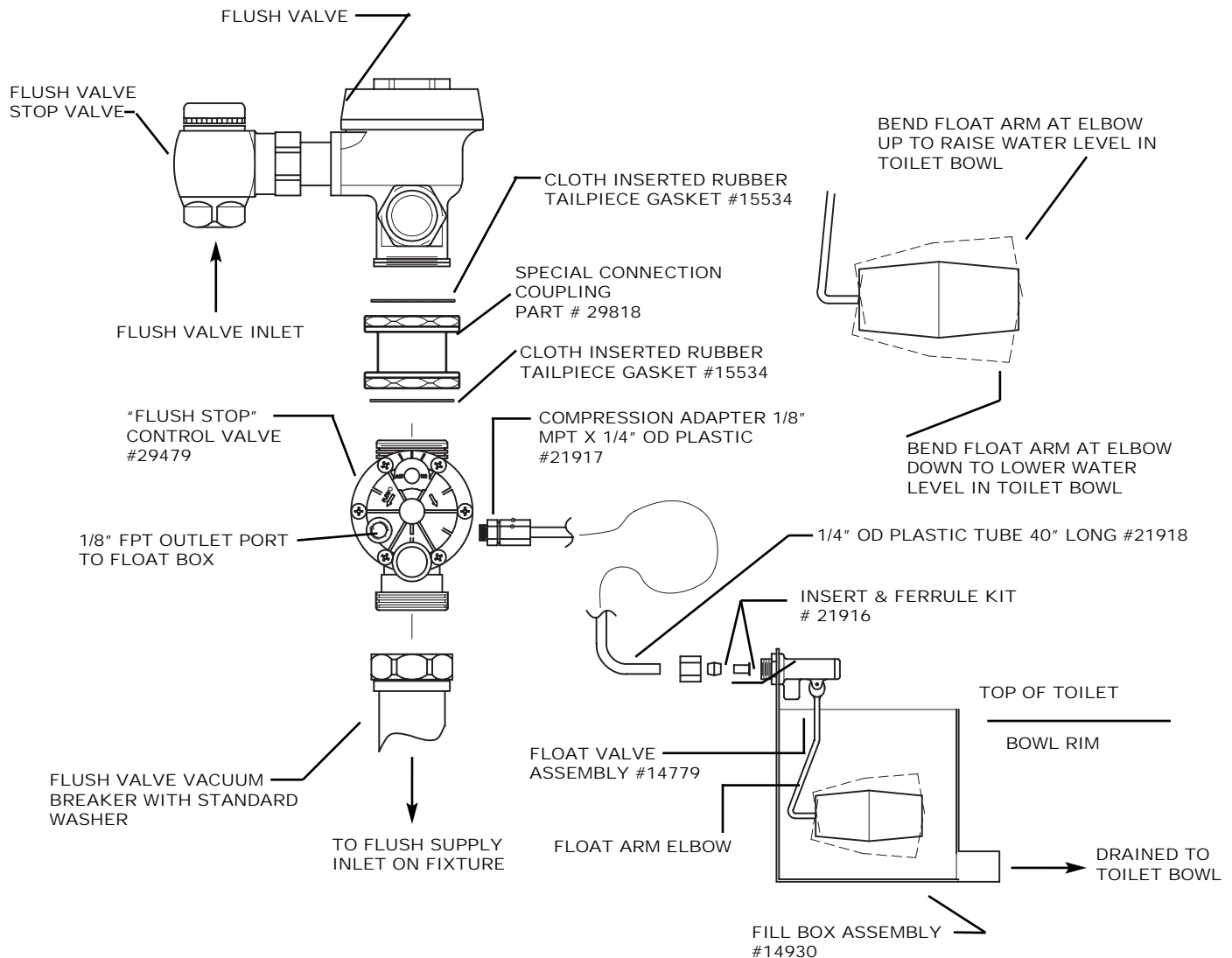
WHEN A SINGLE TEMPERATURE VALVE IS REQUIRED, A STAINLESS STEEL COVER PLATE WITH AN ANCHOR IS PROVIDED TO SECURE THE SIDE OF FIXTURE OPPOSITE THE SINGLE PUSH BUTTON.

REPLACEMENT VALVES SHOULD BE LOCATED WITHIN TEN FEET OF THE FIXTURE(S). WHERE CIRCUMSTANCES PERMIT, VALVES CAN BE MANIFOLDED TO SERVE TWO FIXTURES FROM A SINGLE MANIFOLD.



INDUSTRIES INCORPORATED

ANTI-FLOOD DEVICE INSTALLTION INSTRUCTIONS



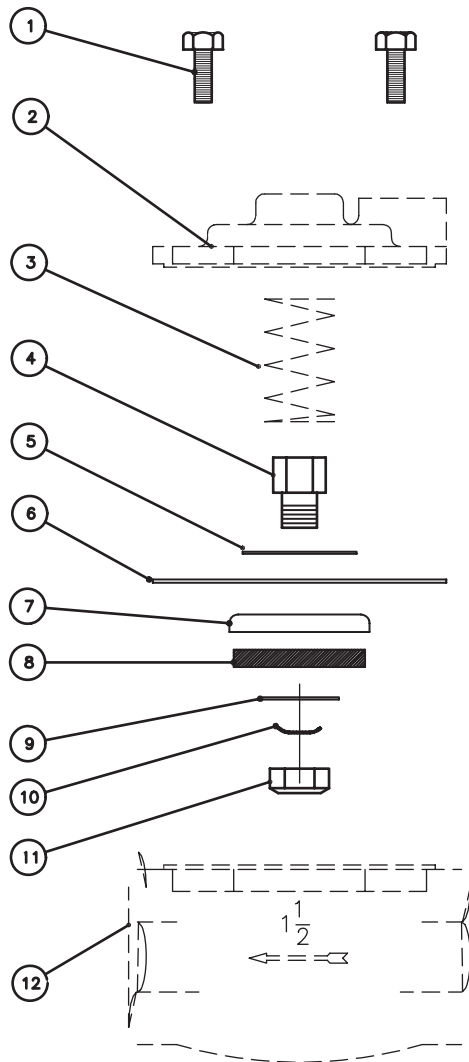
Connect hydraulic "Flush Stop" valve to flush valve using special connection coupling with cloth inserted washers. Install vacuum breaker on downstream side of "Flush Stop" valve. Install assembly on unit as usual.

Slip compression nuts on tube. Install tube on float valve. Run interconnect tube to "Flush Stop" valve. Interconnect tube should be as short as possible, it should have a continuous rise from float valve to compression fitting. All bends should be as "gentle" as possible, be careful not to kink tube when bending. Install compression adapter on "Flush Stop" valve. Install interconnect tube to compression adapter.

The float valve is positioned to prevent water from overflowing the bowl. To adjust the water level, bend the arm of the float valve as required to maintain the desired maximum water level.

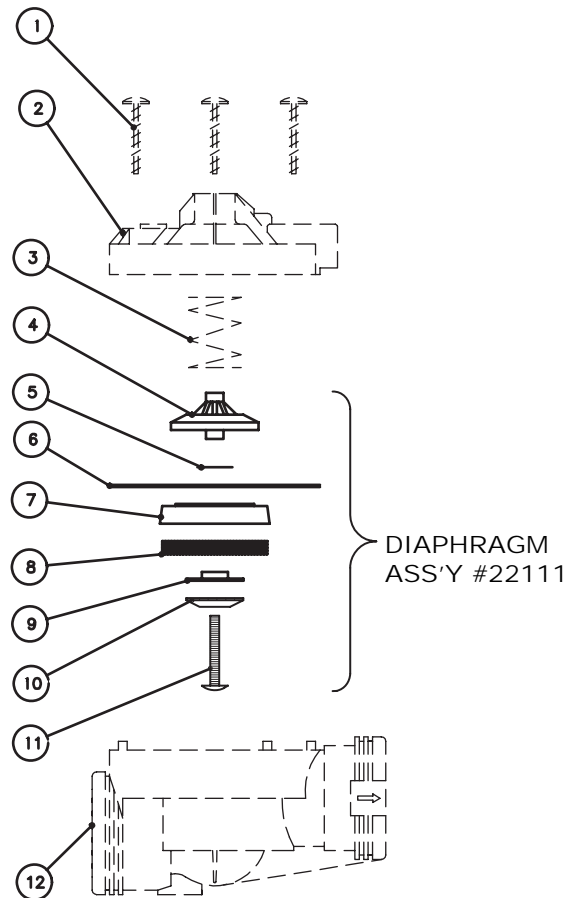


EXPLODED VIEW OF HYDRAULIC DIAPHRAGM VALVES USED WITH METCRAFT #166 ANTI-FLOOD DEVICE



1-1/2" BRASS VALVE
DISCONTINUED USE SEPT. 1995
VALVE ASS'Y #12489

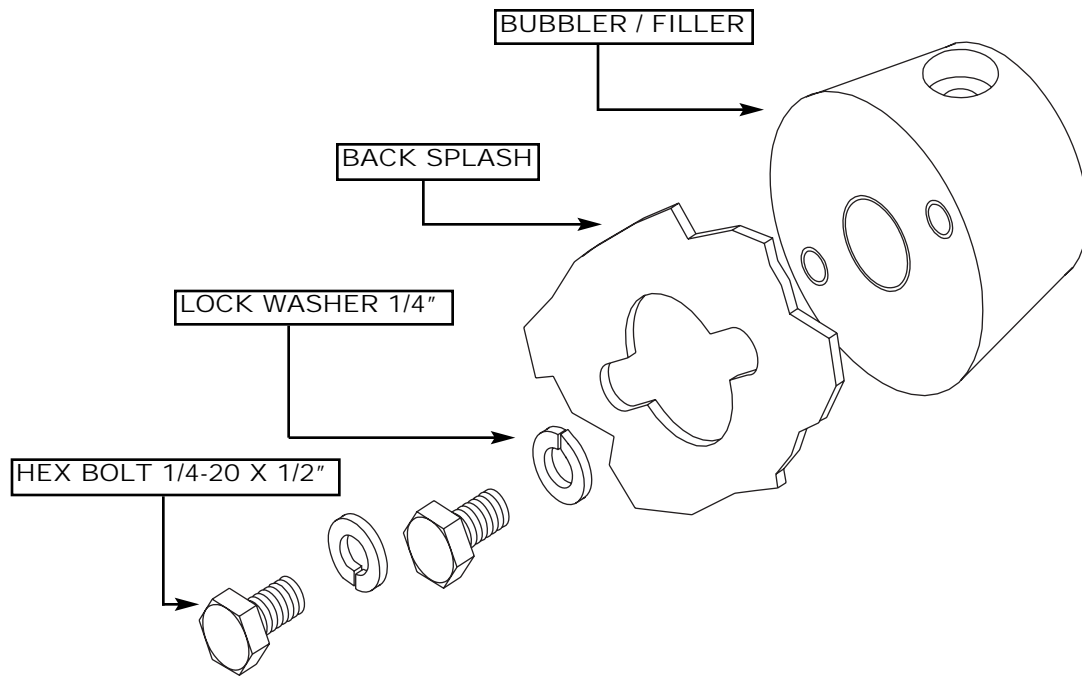
BRASS PARTS ARE
NOT AVAILABLE



1" PLASTIC VALVE
SEPT. 1995 TO PRESENT
VALVE ASS'Y #21925 &
VALVE ASS'Y #29479

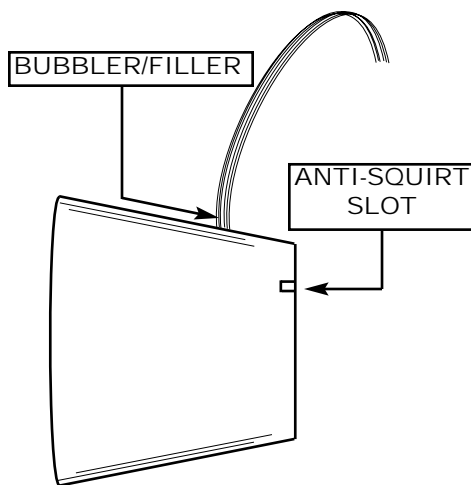
NUMBER BALLOONS ARE FOR REFERENCE ONLY.
NO OTHER PARTS, EXCEPT THOSE SPECIFIED
WITH A PART NUMBER, ARE AVAILABLE FOR
REPLACEMENT.



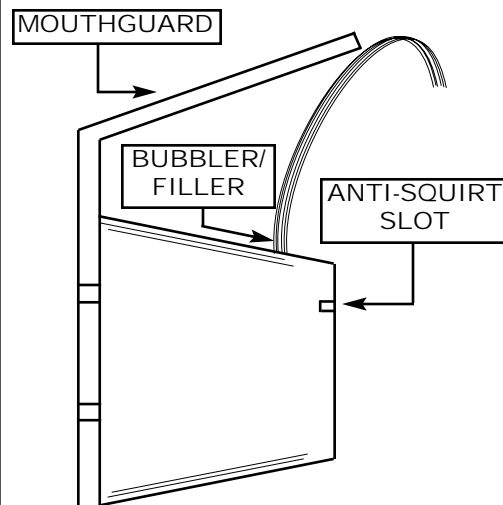


BUBBLER / FILLER INSTALLATION INSTRUCTIONS

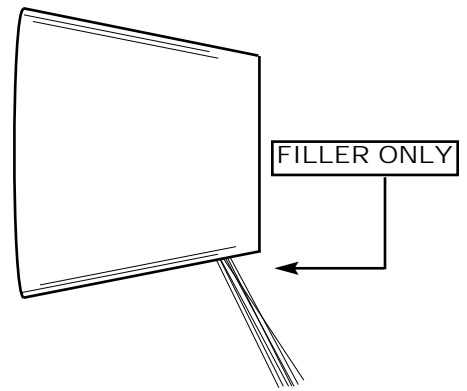
1. Assemble bolt & lock washer finger tight through body slots in back splash and threaded holes in bubbler.
2. Align lock washer so split is not in slots on back splash as shown.
3. Tighten bolts to 10FT/LB.



B1 - BUBBLER/FILLER
ASSEMBLY # 15834

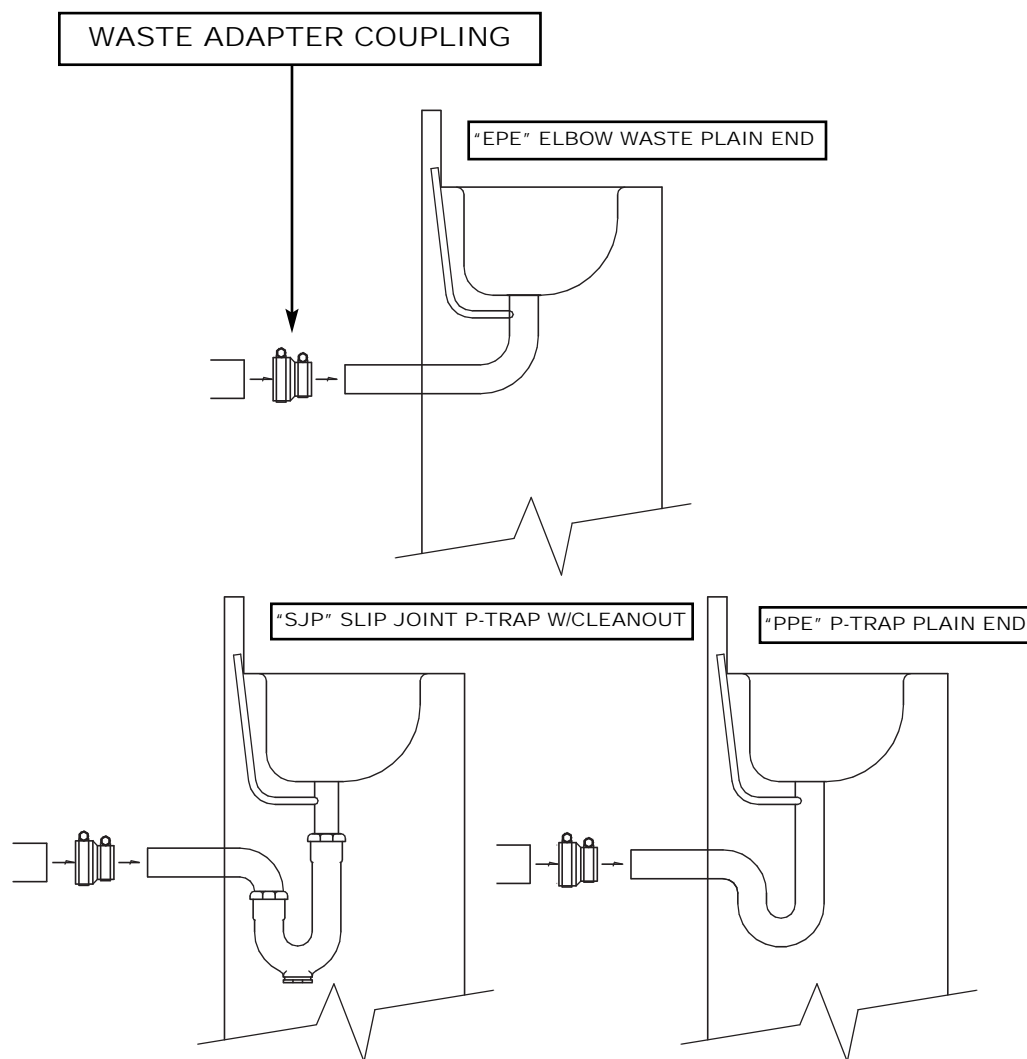


B2 - BUBBLER/FILLER
WITH MOUTHGUARD
ASSEMBLY # 20370

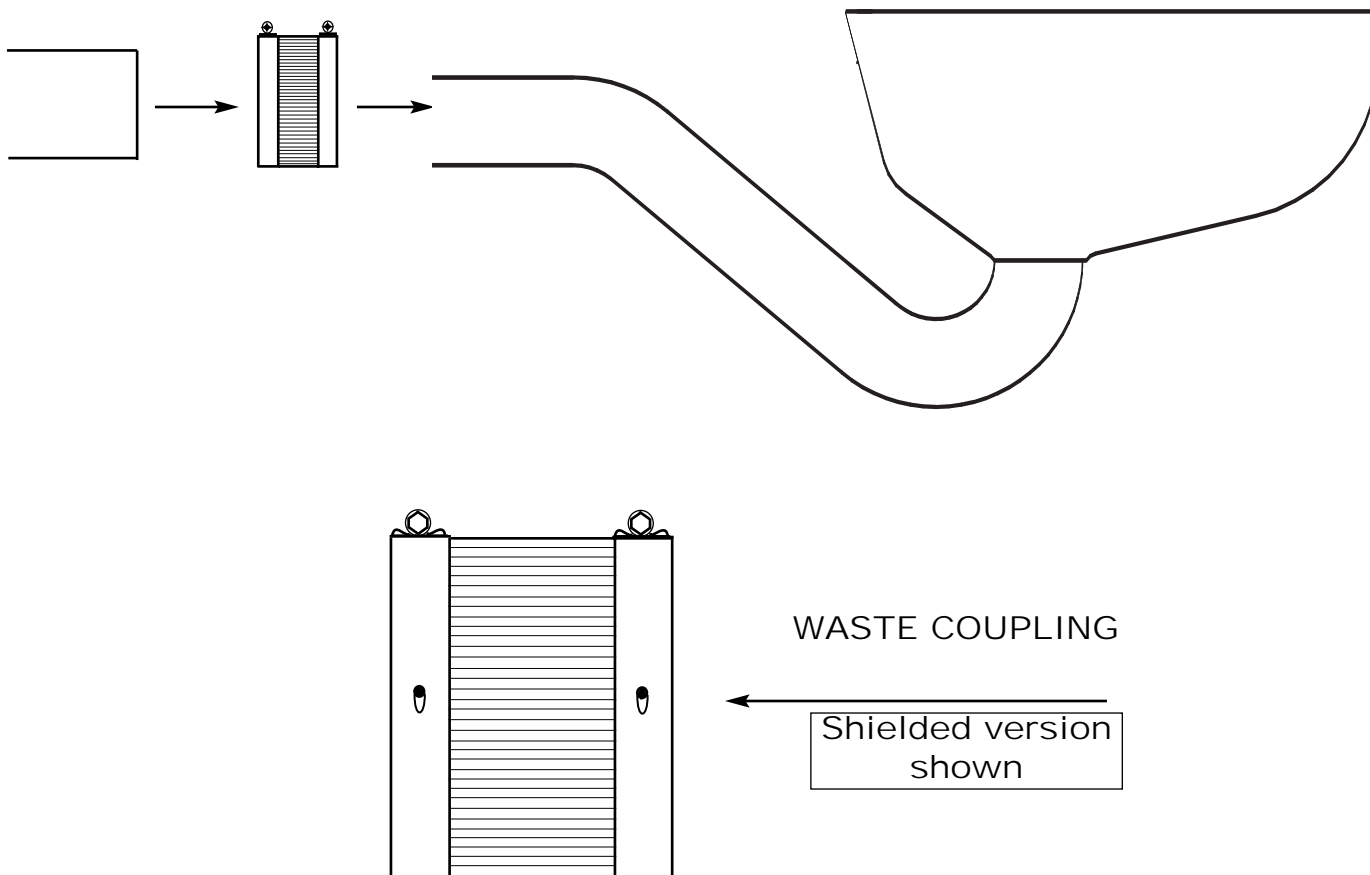


B3 - FILLER ONLY
ASSEMBLY # 26876





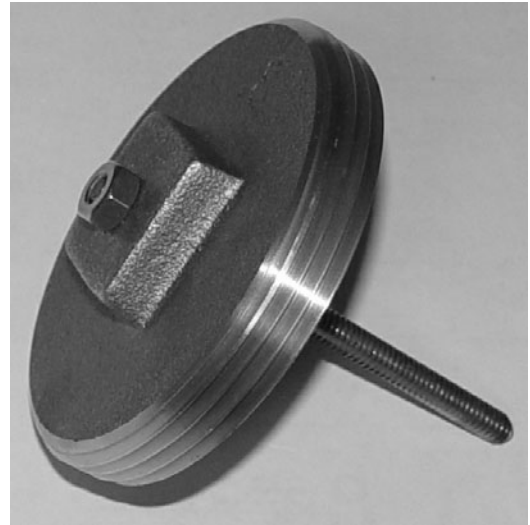
PART #	DESCRIPTION/SIZE
A205-1	1-1/4" (32mm) S/S to 1-1/2" (38mm) COPPER
A205-2	1-1/4" (32mm) S/S to 1-1/2" (38mm) CI
A205-3	1-1/4" (32mm) S/S to 2" (51mm) CI
A205-4	1-1/2" (32mm) S/S to 1-1/2" (38mm) COPPER
A205-5	1-1/2" (32mm) S/S to 1-1/2" (38mm) CI
A205-6	1-1/2" (32mm) S/S to 2" (51mm) CI



PART #	SHIELDED PART #	DESCRIPTION/SIZE
29472	13675	A210-1 3"(76mm)S/S TO 4"(102mm) CI
29472	14113	A210-2 3"(76mm)S/S TO 4"(102mm) PL/STL
29634	14146	A210-3 3"(76mm)S/S TO 3"(76mm) CI
29634	14381	A210-4 3"(76mm)S/S TO 3"(76mm) PL
29634	19748	A210-6 3"(76mm)S/S TO 3"(76mm) S/S

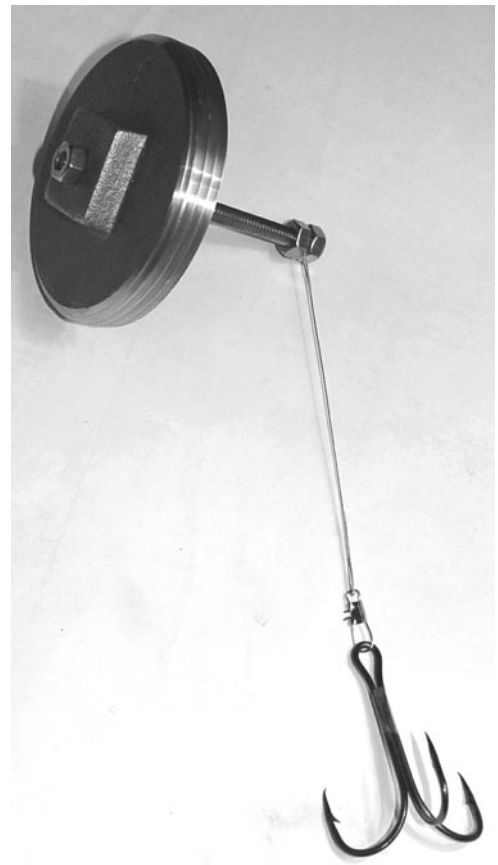
A216-3 Pinned Cleanout Plug 3"

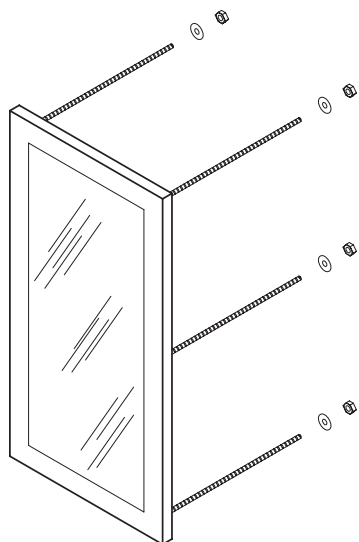
A216-4 Pinned Cleanout Plug 4"



A216H-3 Pinned Cleanout Hook 3"

A216H-4 Pinned Cleanout Hook 4"

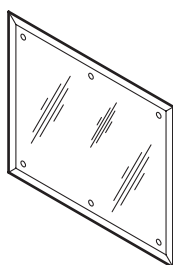


Rear Mounted Mirrors:

A750 Mirror - - 12" x 16"

A751 Mirror - - 12" x 24" ADA

** Custom sizes quoted by request

Front Mounted Mirrors:

A752 Mirror - - 12.5" x 16"

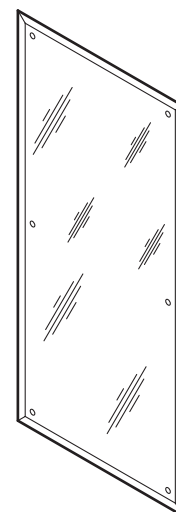
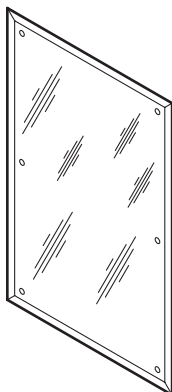
A753 Mirror - - 12.5" x 24" ADA

A754 Mirror - - 9.5" x 11.25"

A755 Mirror - - 11.25" x 17.25"

A756 Mirror - - 11.25" x 23.5" ADA

A757 Mirror - - Custom Sizes
(Built to Size)



PART # 12224

PSH-1
30
DEGREE
SHOWER
HEAD

30°

SPRAY PATTERN

70° MAX.
5° MIN.

PART # 12225

PSH-2
17.5
DEGREE
SHOWER
HEAD

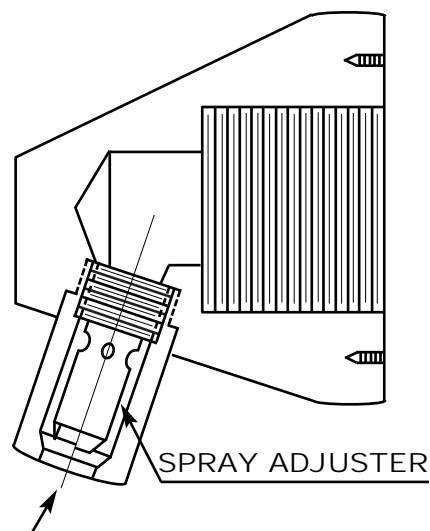
17.5°

SPRAY PATTERN

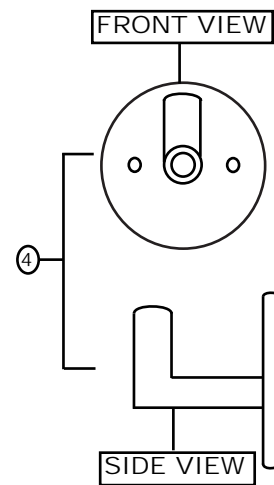
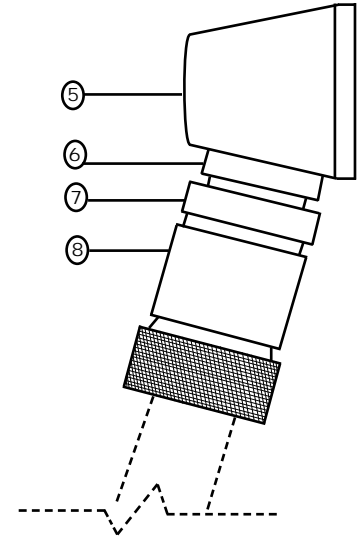
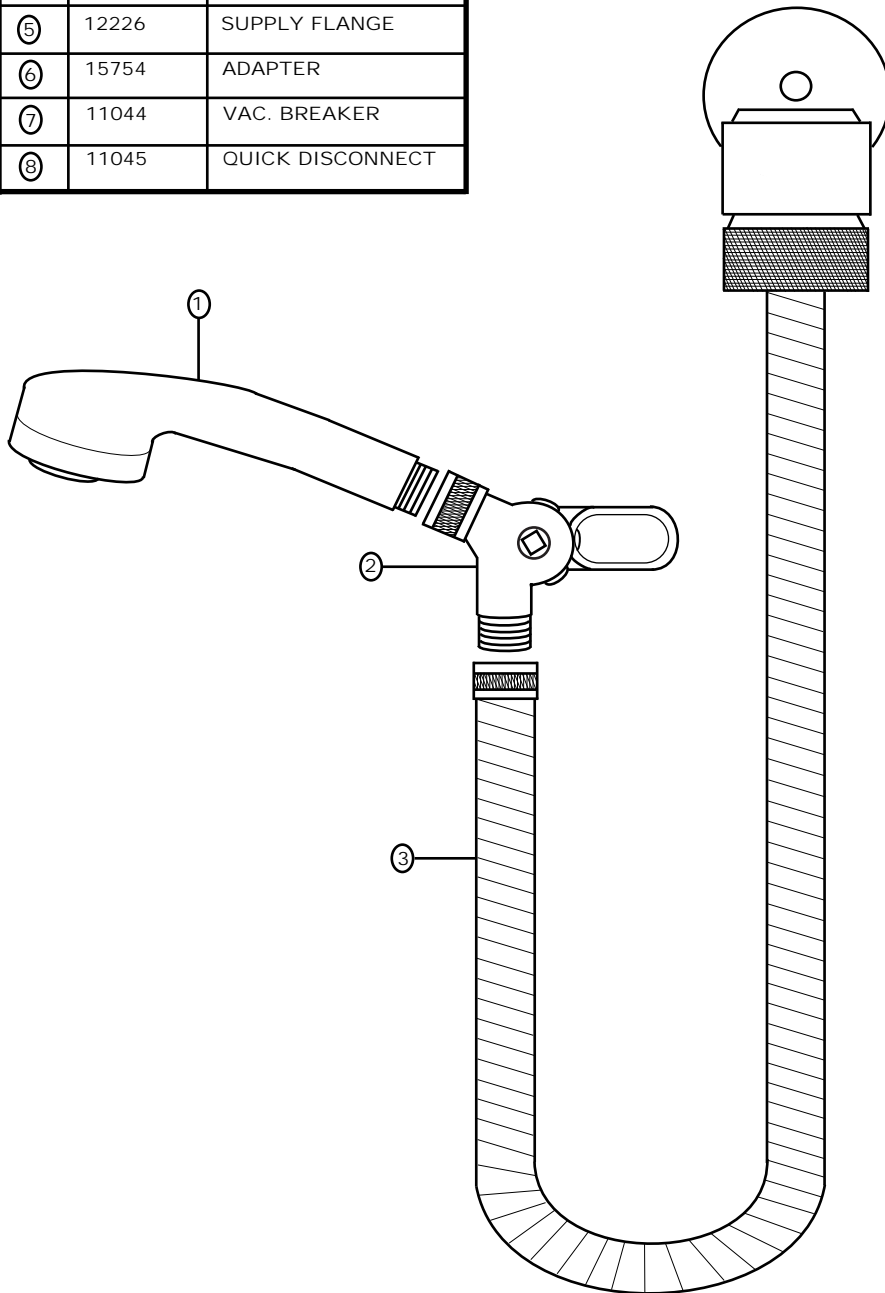
70° MAX.
5° MIN.

THE SHOWER HEADS FEATURE AN ADJUSTABLE SPRAY PATTERN BY USE OF A 1/8" ALLEN WRENCH INSERTED THOUGH THE SPRAY HEAD ORIFICE

INSERT ALLEN WRENCH HERE TO ADJUST SPRAY PATTERN.
DO NOT FORCE OR THE ADJUSTER WILL STRIP OUT



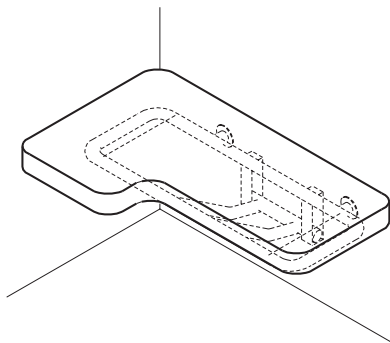
NO.	PART #	DESCRIPTION
①	11046	SPRAY HEAD
②	14119	SWIVEL CONNECTOR
③	11047	S/S FLEXIBLE HOSE
④	11048	MOUNTING HOOK
⑤	12226	SUPPLY FLANGE
⑥	15754	ADAPTER
⑦	11044	VAC. BREAKER
⑧	11045	QUICK DISCONNECT



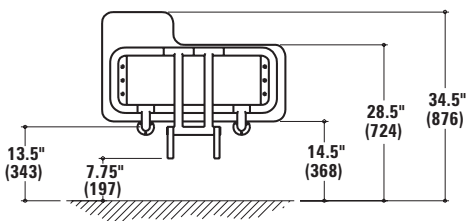
METCRAFT DOES NOT RECOMMEND THE USE OF A HAND HELD SHOWER IN SECURITY TYPE APPLICATIONS. A SECOND FIXED HEAD, MOUNTED PER ADA GUIDELINES IS RECOMMENDED INSTEAD.



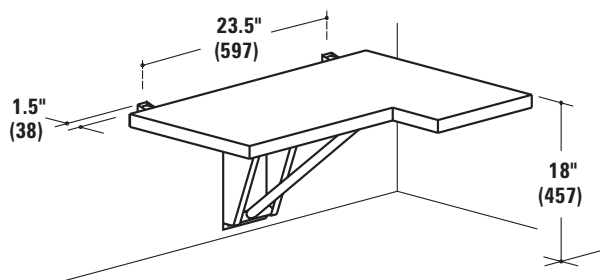
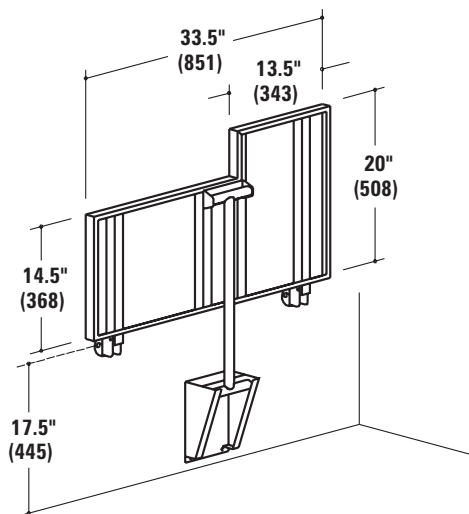
INDUSTRIES INCORPORATED



A510/A511
PADDED VINYL SHOWER SEAT
RIGHT HAND OR LEFT HAND



A515/A516
STAINLESS STEEL SHOWER SEAT
RIGHT HAND OR LEFT HAND



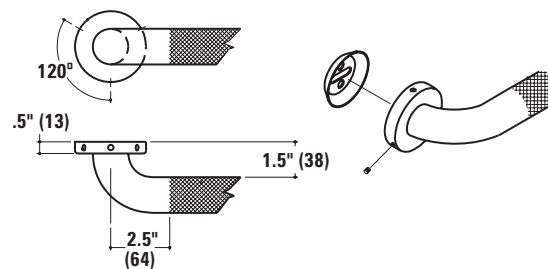
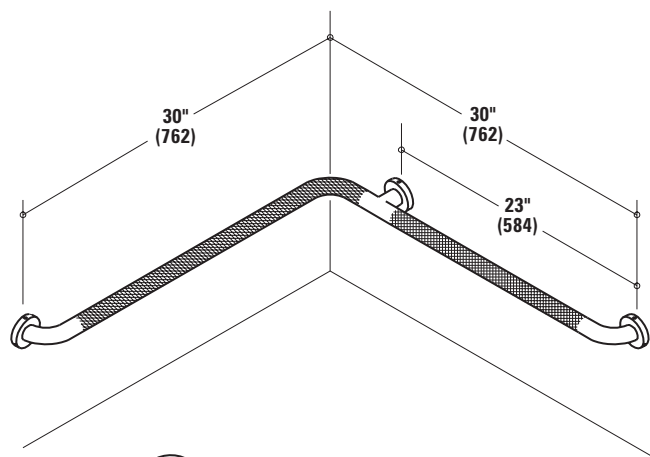
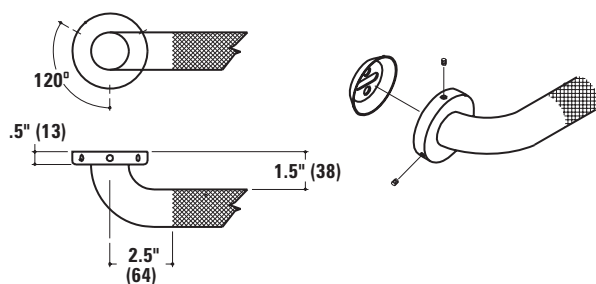
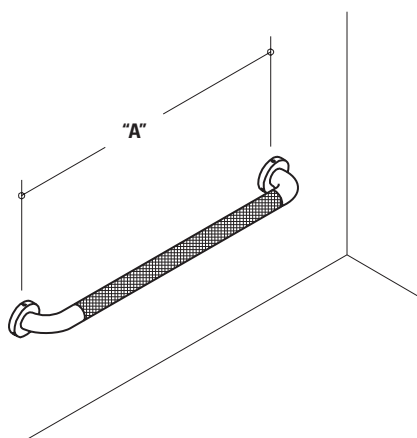
A550 1-1/2" X 24"
A552 1-1/2" X 42"

A551 1-1/2" X 36"
A553 1-1/2" X 48"

CUSTOM LENGTHS AVAILABLE

A540 HORIZONTAL GRAB BARS
30" X 30"

CUSTOM LENGTHS AVAILABLE



TAMPER RESISTANT S/S
TORX BUTTON HEAD SCREW

PART #	SIZE
19519	#6-32 X 1/2"
20072	#8-32 X 1/2"
16167	#10-24 X 1/2"
19712	#10-24 X 1-1/4"
19520	1/4-20 X 1"
26522	1/4-20 X 1-1/4"

TAMPER RESISTANT S/S
TORX FLAT HEAD SCREW

PART #	SIZE
16111	#6-32 X 1/2"
20557	#8-32 X 1/2"
21648	#8-32 X 1"
11328	1/4-20 X 1-1/2"

TORX BIT



PART #	SIZE
19606	#6 T-10
20069	#8 T-15
16169	#10 T-25
19607	1/4-20 T-27

VANDAL RESISTANT CAP
NUTS AND SPANNER BIT

PART #	SIZE
SF3-003	1/4 - 3/8 - 5/8 SPANNER
SF3- 138	1/4-20 CAP NUT
SF3-178	3/8-16 CAP NUT
SF3-179	5/8-11 CAP NUT

CAGE NUT



PART #	SIZE
26930	#10-24
15356	1/4"-20

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Lee's Summit, MO 64082

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PERMIT NO. 137



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