



# 86 \_\_ T1 \_\_ \_\_ series

Write purchase model number here for future reference

210363

NOTE: For optimum performance of this product, we recommend a system pressure between 20 and 80 PSI static. This product will operate up to a maximum of 125 PSI static per ASME and CSA requirements. However, we do not recommend pressure above 80 PSI. Thermal expansion or leaking pressure reducing valves may require use of expansion tanks or relief valves to ensure your system never exceeds its maximum intended pressure setting.

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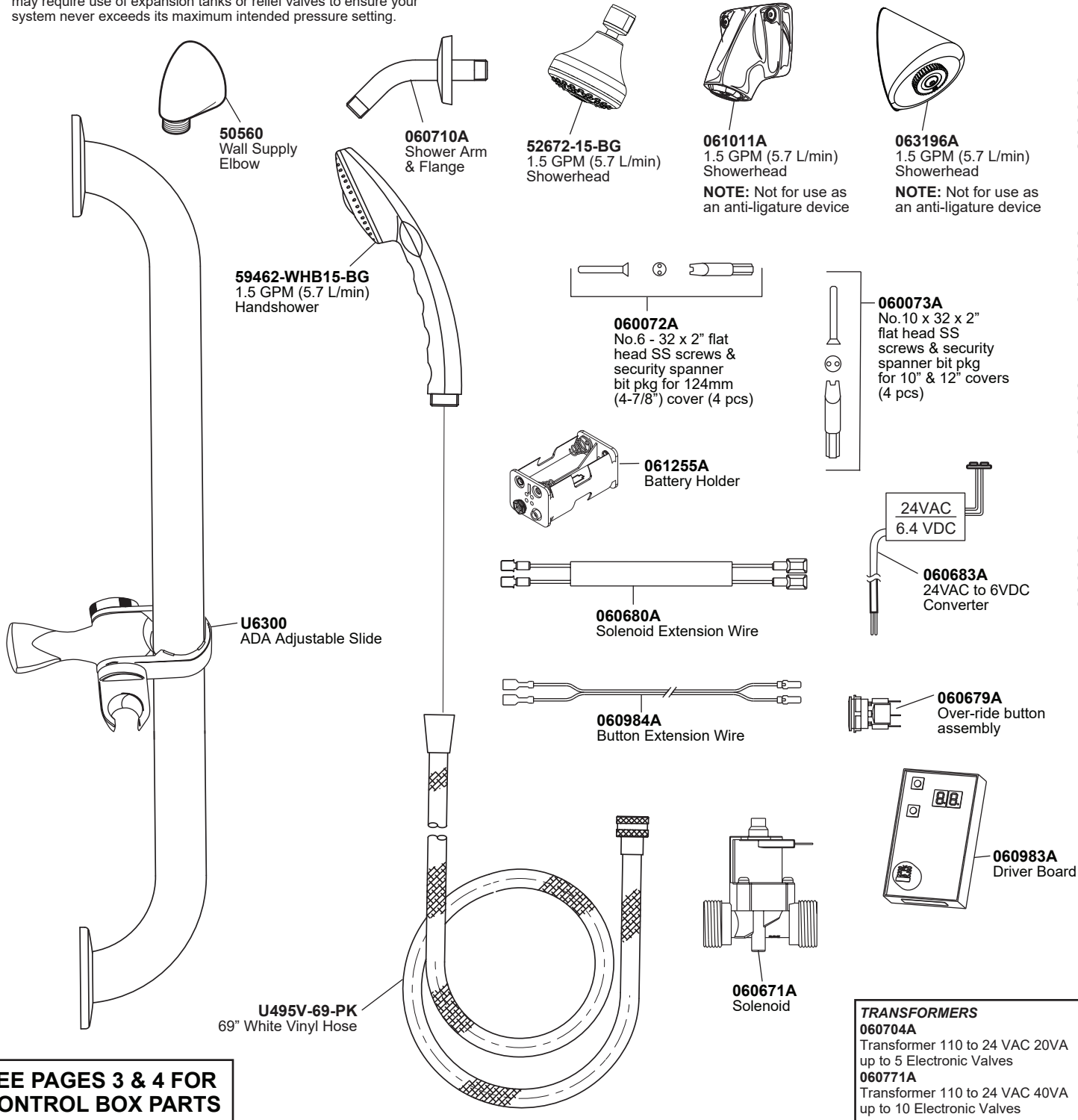
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## ELECTRONIC PUSH BUTTON SHOWER



**SEE PAGES 3 & 4 FOR CONTROL BOX PARTS**

**TRANSFORMERS**  
**060704A**  
 Transformer 110 to 24 VAC 20VA up to 5 Electronic Valves  
**060771A**  
 Transformer 110 to 24 VAC 40VA up to 10 Electronic Valves

**PLEASE LEAVE this M&I Sheet with the owner, maintenance plumber, etc. as items relating to ongoing maintenance suggestions and procedures are included.**

**Installation should be in accordance with local plumbing and electrical codes.  
FLUSH ALL PIPES THOROUGHLY BEFORE INSTALLATION.**

## INSTALLATION INSTRUCTIONS

### STEP 1 - ROUGH IN

- Remove suitable knockout(s) in box(es) and insert cable bushing(s). See Fig.1. NOTE: Wires connecting between boxes and from the transformer must be protected from abrasion and being pulled at connections. They also may have to be finished through at a later stage of construction. Depending on the installation, the cable bushings included may be replaced by installer supplied 1/2" conduit.
- Rough in box as per Fig.3. Use Figures 4, 5, 6 and 7 for specific box information.
- For Hardwire Models:** Install CSA and/or UL approved Class 2 transformer or equivalent in a convenient location or in a pipe chase. **(DO NOT install the transformer inside the control box.)** The transformer is to be installed in an adjacent accessible space. Cable from the transformer to the control box may be roughed in at this time depending on installation. Use cable which complies with local electrical codes for a 1 amp load. No.18 cable is usually sufficient.

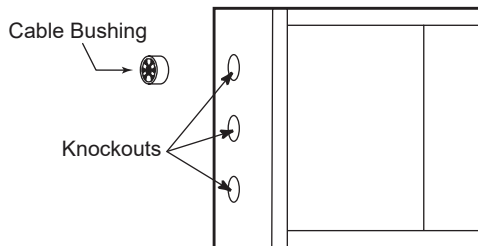
### STEP 2 - CONNECT SHOWER

- Connect piping from supply to valves as per applicable Figure 4, 5, 6 or 7 and for shower head (Fig. 2).
- Finish drainage system and walls.

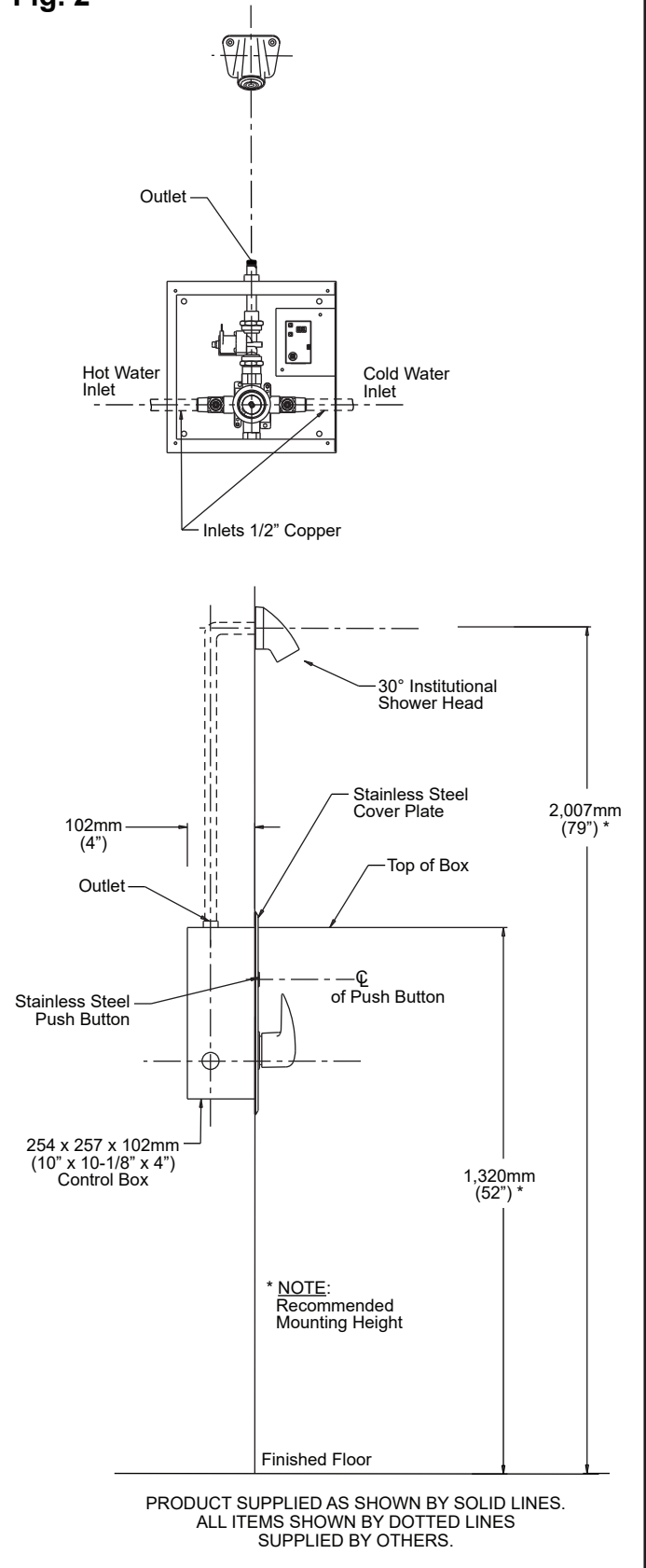
### STEP 3 - FLUSH SYSTEM

- Install shower outlet.
- Open screw driver stop(s) to flush installation for 30 seconds. If pressure balancing valve is supplied, use supplied handle to rotate the valve stem midway between its stops before flushing. If thermostatic mixing valve is supplied, move lever to central position before flushing.
- Close stops.

**Fig. 1**



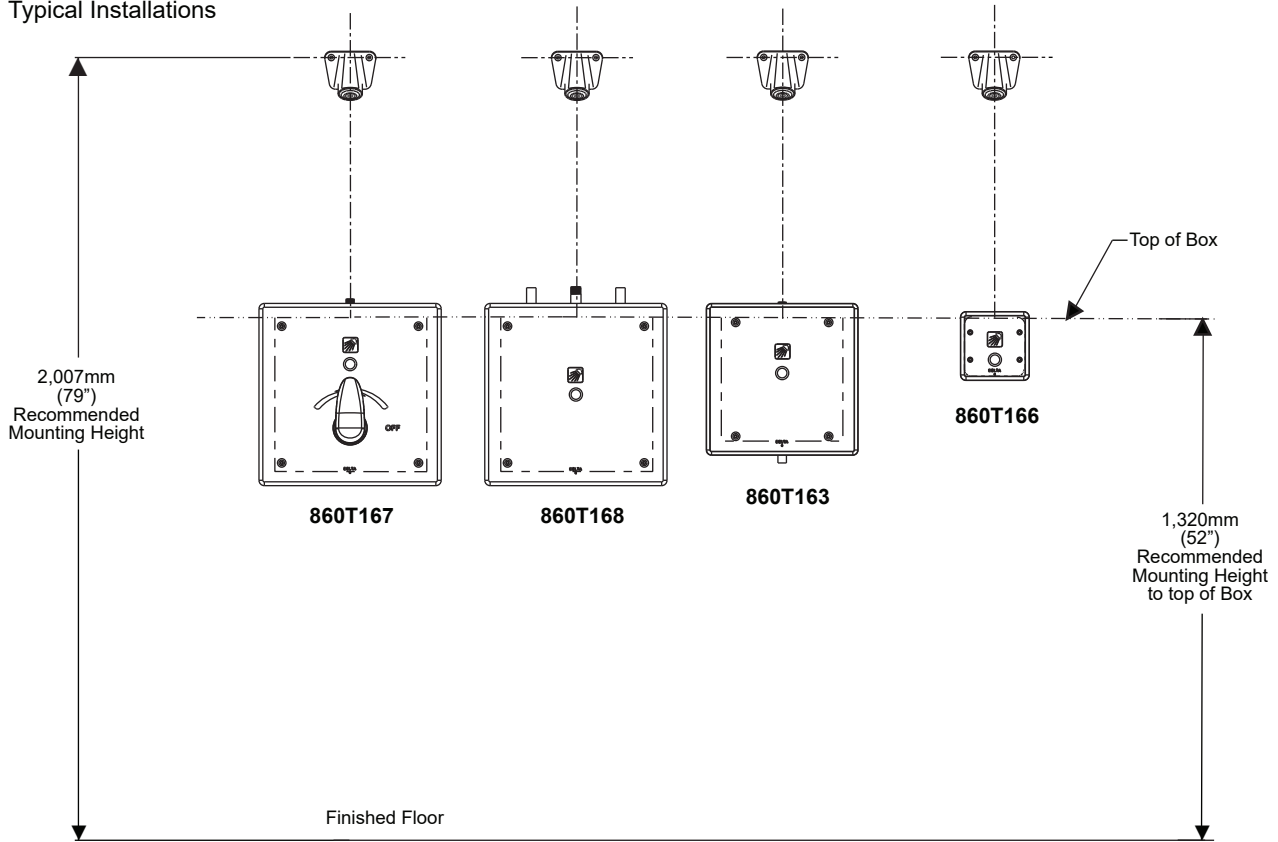
**Fig. 2**



# INSTALLATION INSTRUCTIONS

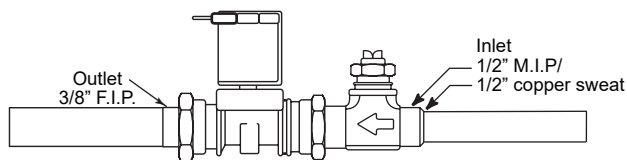
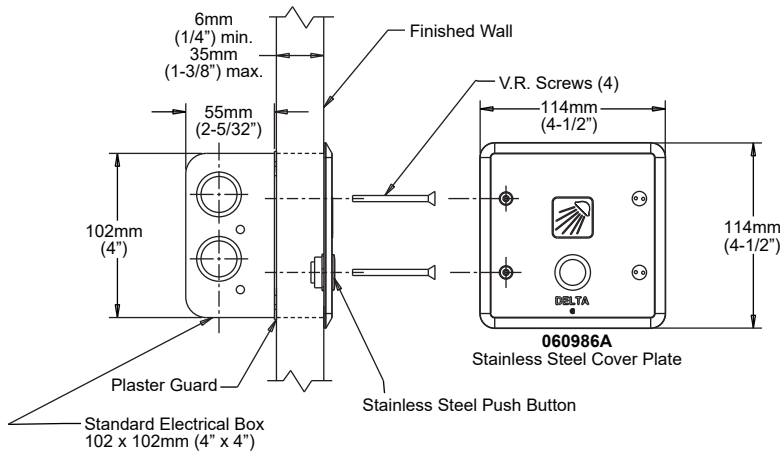
**Fig. 3**

Typical Installations



**Fig. 4**

**Control Box #6**



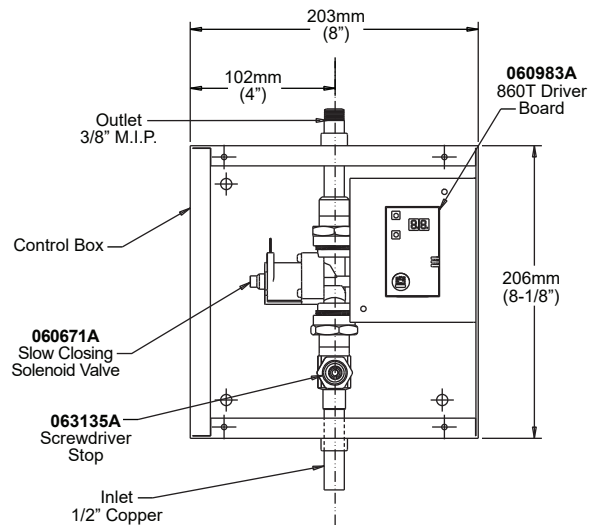
060671A Slow closing solenoid valve

063135A Screwdriver Stop

The stop and solenoid will need to be mounted in a separate accessible location. Cannot be installed in the 4" rough-in box.

**Fig. 5**

**Control Box #3**



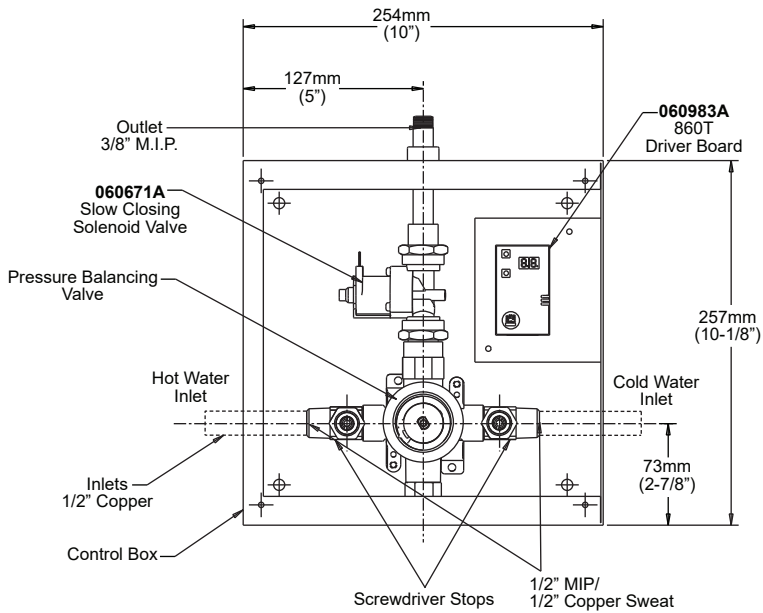
Tempered Water (By Others)

060985A 10" x 10" Stainless Steel Cover

# INSTALLATION INSTRUCTIONS

**Fig. 6**

**Control Box #7**

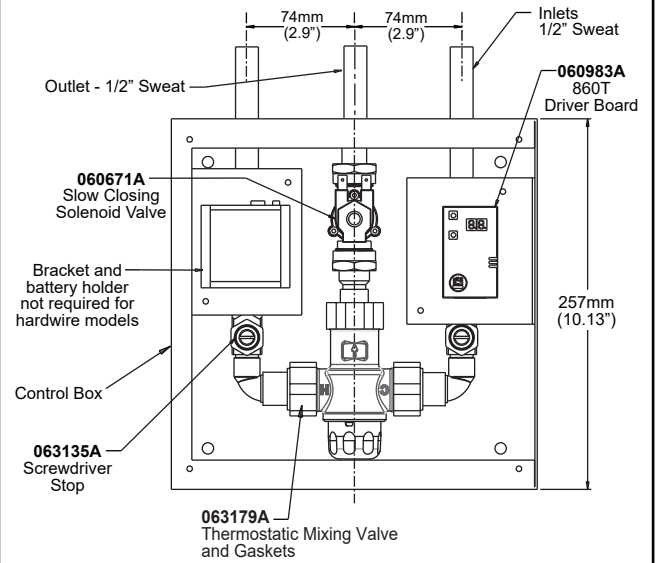


PIPING SHOWN WITH DOTTED LINES SUPPLIED BY OTHERS.

**060987A**  
12" x 12" Stainless Steel Cover

**Fig. 7**

**Control Box #8**



**060988A**  
12" x 12" Stainless Steel Cover

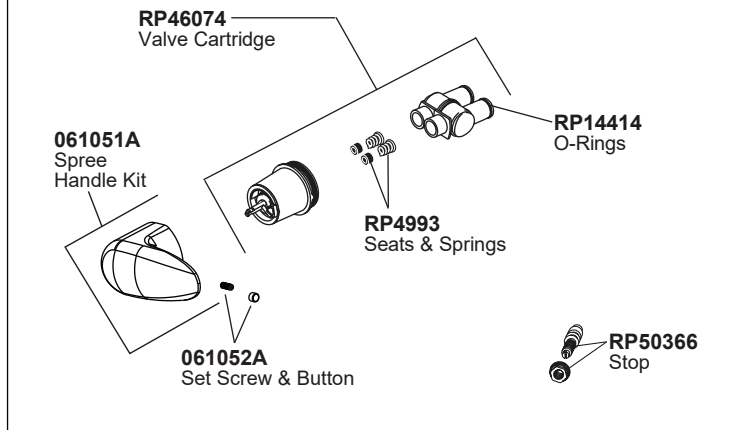
**TMV Repair Kits**

**061135A**  
Gasket Kit only (3 pcs)

**061137A**  
Adjustment Wrench

**063164A**  
Check Valves (2 pcs)

**Parts for Pressure Balance Mixing Valve**



# INSTALLATION INSTRUCTIONS

## STEP 4 - CONNECT DRIVER BOARD, SOLENOID, POWER SUPPLY AND OVERRIDE BUTTON

- Remove valve spacer and replace with solenoid valve (Fig. 9). Note flow direction marked on the valve body and install in the correct orientation (Fig. 8).
- Attach the black and red solenoid wires on the driver board to the solenoid. Red wire attaches to the terminal marked "+", Black wire to "-".
- For Battery -**
  - Install 4 fresh "AA" batteries into the battery pack.
  - Attach the driver board battery clip to the battery pack.
- For Hardwire - ⚠**
  - Install CSA and/or UL approved class 2 transformer or equivalent in a convenient location in an adjacent accessible space, either above the ceiling or in an access chase.
  - Have transformer connected to the power supply as required by local electrical codes.
  - Run cable from the secondary side of the transformer to the control box, if not already done, and connect to the hardwire converter (060683A).
- Attach the driver board battery clip to the hardwire converter.
- Override Button -**
  - Use the supplied button extension wire and connect the male ends to the override button wires (yellow) of the driver board.
  - Connect the female ends of the extension cord to the stainless steel button (Fig. 10).

Fig. 8

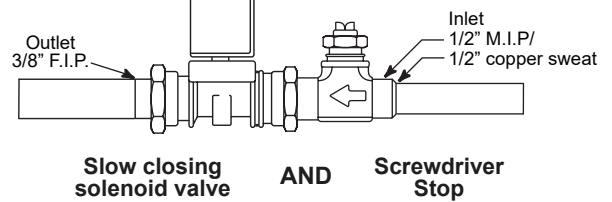
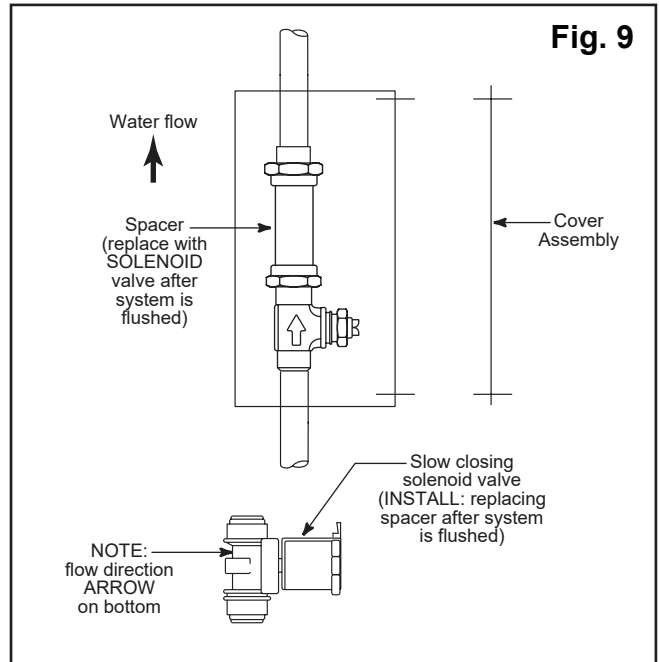


Fig. 9



## STEP 5 - TURN ON WATER, ADJUST AND REPLACE COVERS

### 5.1 Pressure Balanced Valve

- Install cartridge. (Note: for cartridge installation instructions and back to back installations, refer to pages 3 to 6 of the included MultiChoice™ Valve Trim instructions.)
- Open screwdriver stop(s) to supply water to the shower.
- Press the stainless steel button to start the flow of water.
- Adjust to desired water temperature (page 6 of the MultiChoice™ Valve Trim instructions).
- Ensure that the stickers contained within the MultiChoice™ Valve Trim instructions are applied accordingly.
- Advance to step 5.3.

### 5.2 Thermostatic Mixing Valve

- To adjust the mixed outlet temperature of the valve, remove the cap to gain access to the adjusting spindle.
- The spindle should be rotated towards the "C" side to reduce the temperature and towards the "H" side to increase the temperature - until the desired set point is reached (refer to Fig. 11).

### Periodic Inspection/Maintenance

- We recommend that this valve is checked at least once per year to ensure its continued function. For installations with poor or unknown water quality, or other adverse supply conditions, it may be necessary to check the valve at more frequent intervals. The temperature should be checked at the same outlet as was used for commissioning in the first instance. If the temperature is more than 3°F from the commissioning in temperature, refer to the included Cash Acme Maintenance & Installation Guide.

### 5.3 All Models

- Replace covers using vandal resistant screws and drivers supplied.

Fig. 10

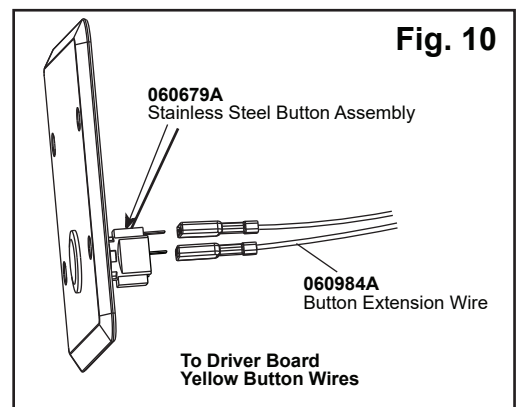
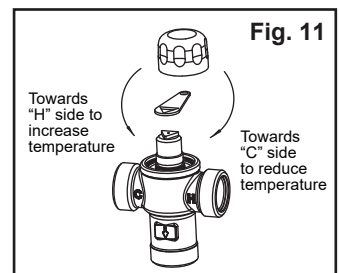


Fig. 11



# OPERATION

- Shower flows when stainless steel button is activated.
- Shower flow stops upon reactivation of the button, or when the maximum continuous run time expires. Default continuous run time is 3 minutes. Refer to Driver Board Set-Up section for information on how to adjust the maximum continuous run time.
- When the run time expires and the shower turns off, the user may press the override button again to obtain an additional 2 minutes of run time.
- Adjustable maximum run time from 1 minute to 10 minutes - in 30 second increments.
- Battery operated units - the electronics of the shower driver board have been optimized for maximum battery life. On a set of 4 "AA" alkaline batteries, users should expect up to 5 years of battery service. To check the status of the battery life without the need of a multi-meter, do the following:
  1. Ensure nothing is showing on the display screen. If there are numbers being displayed on the screen, simply wait a few seconds until the screen goes blank.
  2. Press and hold down the "UP" button.
  3. The display will then highlight an appropriate amount of bars to signify the strength of the batteries. The number of bars displayed is proportionate to the "health" of the batteries. For example:



3 BARS - batteries are healthy. 3 - 5 years of service life left (depending on shower usage).



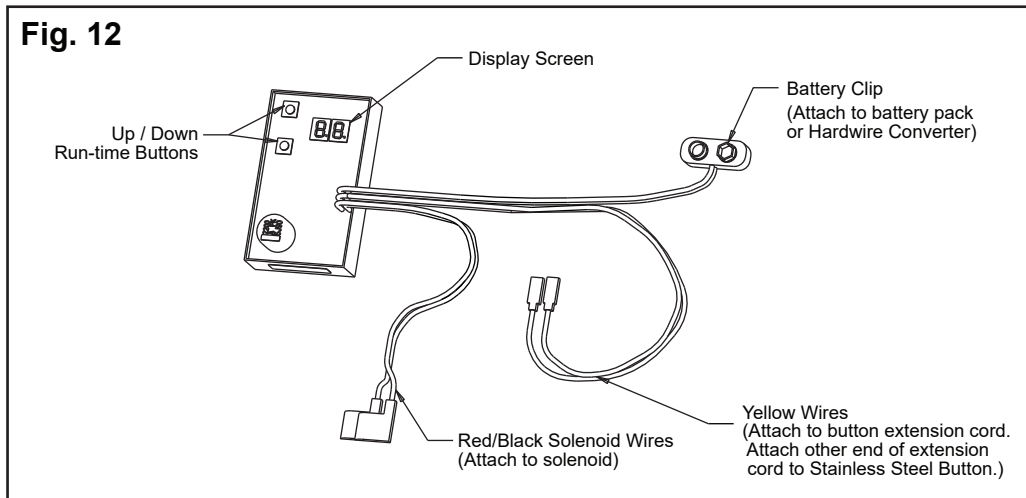
2 BARS - batteries are okay. 1 - 3 years of service life left (depending on shower usage).



1 BAR - batteries will need to be replaced soon. Less than a year of service life left (depending on shower usage).



NO BARS (dot in lower-right corner) - batteries need to be replaced immediately. The solenoid has been locked out and will not fire until batteries have been replenished.



# DRIVER BOARD SET-UP

- Press the yellow up and down buttons (Fig. 12) at any time to increment or decrement the maximum run time of the shower. The maximum run time is adjustable from 1 minute to 10 minutes - in 30 second increments.
- Use the display (Fig. 12) to verify that the maximum run time you want has been set.
- A “.5” at the end of a number signifies an additional 30 seconds.  
Example : 6.5 = 6 minutes and 30 seconds
- There are also 0.1, 0.2, 0.5 and 0.7 settings which are lower than 1 minute. These settings are not recommended for this shower system.

Display Status	Max. Run Time
10	10 minutes
9.0	9 minutes
8.0	8 minutes
7.0	7 minutes
6.0	6 minutes
5.0	5 minutes
4.0	4 minutes
3.0	3 minutes
2.0	2 minutes
1.0	1 minute
0.7	42 seconds *
0.5	30 seconds *
0.2	12 seconds *
0.1	6 seconds *

\* not recommended for shower system

# CARE INSTRUCTIONS

This Delta Commercial product is designed and engineered in accordance with the highest quality and performance standards. With proper care, it will give years of trouble free service. Care should be given to the cleaning of this product. Although the chrome finish is extremely durable, it can be DAMAGED by ACIDIC CLEANERS (i.e., cleaners designed specifically for vitreous china lavatories and water closets), HARSH ABRASIVES or POLISH. To clean, simply wipe the surface with a damp cloth and blot dry with a soft cloth.

# TROUBLE SHOOTING GUIDE

If shower does not come on when button is activated:

1. Verify that the water is on, screwdriver stop(s) are open and the temperature control valve is open.
2. Check to see that the plugs for the stainless steel button and solenoid valve are pushed in properly. Also ensure no bare wires are touching one another, possibly shorting out the button.
3. Verify that the battery clip is hooked up to a 6 volt DC supply - either the battery pack or the hardwire converter. If battery pack is below 4 volts DC, then replace with 4 new “AA” alkaline batteries. To check the status of the batteries without the need of a multi-meter, refer to page 6.
4. Remove solenoid and filter screen from solenoid valve and check for dirt deposits.

If water flows continuously:

1. Maximum run time may be set too high. Refer to “**Driver Board Set-Up**” on how to lower the maximum run time of the shower.  
**Note:** The shower will run continuously until the maximum run time has expired, OR until a user presses the stainless steel button.
2. Ensure that the solenoid wires are hooked up correctly. Red wire to “+” marking solenoid, black wire to “-”.

## Backflow Protection System

Your Delta handshower incorporates a backflow prevention system that has been tested to be in compliance with ASME A112.18.3, CSA B125.1 and ASME A112.18.1. It incorporates two certified check valves in series, which operate independently and are integral, non-servicable parts of the wand assembly. In jurisdictions where code may not allow this device, order vacuum breaker separately.

## CAUTION!

Use of enhanced water efficient showerheads (restricting water flow below 2.5 gpm @ 80 psi) may result in unexpected temperature changes that might startle – or could even burn – the bather if the water supply pressure changes. Water supply pressure changes can occur due to things like toilet flushing and washing machine or dishwasher operation.

## Remedies

1. Install only with a compensating valve rated at or less than for this showerhead’s flow rate.
2. Alternatively, after installing, be sure to test the effect of adding this showerhead to your plumbing system. While running your shower, activate each water-demanding appliance in your home (such as the toilet, dishwasher, clothes washer, etc.) and check to see if the use of those appliances causes the temperature of the shower water to change suddenly. Under all circumstances confirm that the water coming from the showerhead does not exceed 120°F (49°C). If the temperature of the water changes suddenly or exceeds 120°F (49°C), contact the manufacturer at 1-800-345-3358 before using the showerhead.

## Delta Commercial Faucet Limited Warranty

All parts of the Delta® HDF® and TECK® faucets are warranted to the original commercial purchaser to be free from defects in material, finish and workmanship for a period of five (5) years unless otherwise specifically stated in the catalogue and price book. This warranty is made to the original commercial purchaser and shall be effective from date of purchase as shown on purchaser's receipt.

Delta will, at its option, repair or replace, FREE OF CHARGE, during the warranty period, any part which proves defective in material or workmanship under normal installation, use and water and service conditions. If Delta Faucet concludes that the returned part was manufactured by Delta Faucet and is, in fact, defective, then Delta Faucet will honour the warranty stated herein. Replacement parts can be obtained from your local dealer or distributor listed in the telephone directory or by returning the part along with the purchaser's receipt to our factory, TRANSPORTATION CHARGES PREPAID, at the address listed. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY DELTA. ANY CLAIMS MADE UNDER THIS WARRANTY MUST BE MADE DURING THE FIVE YEAR PERIOD REFERRED TO ABOVE. ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. LABOUR CHARGES AND/OR DAMAGE INCURRED IN INSTALLATION, REPAIR OR REPLACEMENT AS WELL AS INCIDENTAL AND CONSEQUENTIAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES CONNECTED THEREWITH ARE EXCLUDED AND WILL NOT BE PAID BY DELTA FAUCET.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty is for commercial products only from Delta Faucet Company and Delta Faucet Canada (a division of Masco Canada Limited) and is void for any damage to this faucet due to misuse, abuse, neglect, accident, improper installation, any use in violation of instructions furnished by Delta Faucet or any use of replacement parts other than genuine Delta parts.

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### Warning:

Changes or modifications not expressly approved by Delta could void the user's authority to operate the equipment.

**CAN ICES-3 (A) / NMB-3(A)**

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Box 40980, 55 East 111th St., Indianapolis, IN, U.S.A. 46280  
(317) 848-1812

For further technical assistance, call Delta Commercial Technical Service at 1-800-387-8277 (Canada) or 1-877-509-2680 (U.S.A.).

[www.deltacommercialfaucets.com](http://www.deltacommercialfaucets.com)

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