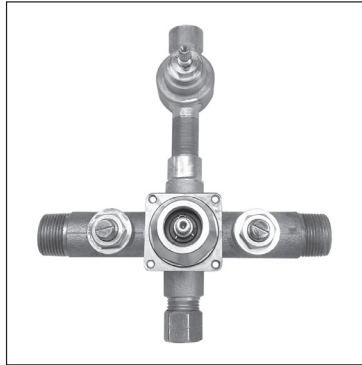


Installation Instructions for 1/2" Thermostatic Valve with Single Volume Control



MODEL # 78.30.079M

Please read the complete thermostatic instructions and cautions contained in this booklet before attempting installation. It is recommended that only a licensed, professional plumber install this product. Please leave booklet for homeowner's future reference.

FEATURES:

- Convenient, complete serviceability from front of unit.
 - 3/4" NPT inlets provide for less restriction of incoming water.
 - 14 gpm @ 56 psi.
 - Screw driver spring loaded stops are used for integral service shut-offs.
 - Extension kits are available through dealer at an extra charge.
- Request the following:
- Part #18.30.216 containing: 4-1/2" Threaded Tube
5" Square Tube
- The parafin wax sensitivity cartridge constantly monitors temperature and re-adjusts within 2° Fahrenheit of set temperature when supply pressure and/or temperature fluctuates. Re-adjustment occurs in less than 2 to 4 seconds.
 - 1/2" valve offers up to 1 built-in exit as a standard feature.

CARE INSTRUCTIONS:

The product you have just purchased is designed to provide long lasting beauty and dependability. When installing, we recommend you lay all finished parts on a soft cloth or towel to avoid scratching or damaging the product. To insure your product's longevity, wipe with a clean, soft, damp cloth and blot dry as often as possible. Never use abrasive cleansers, sponges, or acidic cleaning products as these may damage the finish and may VOID THE WARRANTY.

Maintenance:

Occasionally, remove cartridge and brush debris and hard water build-up on outside of cartridge with a toothbrush. It may be necessary to soak cartridge in a 50/50 solution of clear household vinegar and water to remove tough deposits. **Never take the thermostatic cartridge itself apart.** Doing so will damage this precise instrument, generally make the cartridge inoperable, and void any warranty. Frequency of maintenance varies with many factors, such as mineral content (hardness) of water supply, new construction/changes affecting any home water lines, age of property, use of well water, etc.

INSTALLATION INSTRUCTIONS

1/2" THERMOSTATIC VALVE & SYSTEMS

CAUTIONS!



NO HEAT, NO TORCH ... Shall be applied to the valve assembly. Cartridge and ceramic seats cannot withstand heat from soldering torch.



Use teflon tape thread sealer at all joints. **DO NOT USE PLUMBERS PUTTY. USE OF ANY CAUSTIC MATERIAL MAY HARM THE FINISH AND/OR INTERFERE WITH PROPER FUNCTION OF THE CARTRIDGE.**



Prior to installing the thermostatic valve, **flush all water lines** to free up all solder, sand, silt and debris that have accumulated in plumbing lines. The lines should be flushed long enough to remove any sediment that may come from any new additional installation such as a water heater.

Reminders Prior to Starting:

- Water pressure comes from your local water supplier and can be measured at the source on the street. Pressure or water velocity is not a function of the valve.
- Keep in mind the distance the shower head or other exit is from the valve will affect how quickly you feel the instantaneous correction in the temperature.
- Water heater must be operational for valve to function.
- Failure to flush all water lines properly as stated above may damage internal parts.
- Serviceable spring check valves are provided with the valve and may be blocked by initial failure to flush lines or by heavy sediment. An in-line water filter may be recommended in certain situations such as well water.
- For proper flow rates and custom, multiple exit installations, check with your authorized dealer for installation assistance. When incorporating body sprays into a system, no more than three sprays should be plumbed out of the top outlet only for maximum flow in conjunction with a pressure balancing loop.
- Do not attempt installation of the product if you do not understand these instructions.
- **Qualified plumbers should be used for all installation procedures.**

Begin Installation:

STEP 1 Read complete instructions and prints from start to finish before beginning



REMEMBER NO HEAT NO TORCH APPLIED DIRECTLY TO VALVE!!

STEP 2 Install adapters at inlets with the required length of copper pipe (minimum 8") already soldered to the adapter. Then connect the hot water to the side stamped with + (plus) and the cold water to the side stamped - (cold). **DO NOT REVERSE CONNECTIONS:** the valve will not work properly! The screw driver integral stops are 1/4 turn ceramic disc cartridges. Any debris caught in the cartridge discs may cause exits to drip.

- STEP 3** The depth of the valve should be determined using mud guard. **(PRINT #4)** Square tube will then be 1-1/2" from finished wall. If square tube should extend beyond 1-1/2" then metric tube and square tube may be cut. **NOTE:** Metric all-thread tube **(Print #1)** has threads on inside. **DO NOT CUT THIS END.** Extensions are available for an extra charge through dealer as previously noted.
- STEP 4** Connect the exit(s) required to copper pipe using same precautions mentioned in Step #2. **NO HEAT, NO TORCH!**
- STEP 5** If needed, remove cartridge by rotating counter-clockwise before removing **(PRINT #5)** and flush lines one last time. Replace cartridge, pushing straight into body and rotating clockwise until tight. Replace the cartridge holding nut, threaded tube, and square tube. **(PRINT #1)** Open both screw-driver inlet ports and pressure test all connections with water. Check for flow and leaks before closing wall. Wall cut-out should follow mud guard. **(PRINT #4)**
- STEP 6** Be sure hot water heater is connected, clean and operational and set to approximately 140° degrees Fahrenheit. **If there is no hot water, valve cannot be calibrated or system tested for proper performance.** Install plate, dial, temperature limit stop, swivel bushing, square tube and metric tube. Not the handle trim. The valve is now ready for temperature adjustment. **SEE PRINT #1**
- STEP 7** The main valve cartridge affects only the mixed water temperature and must be "calibrated" to protect the end user while bathing. Calibration is simple and takes only a few additional minutes. The temperature range of mixed water is controlled through calibration, setting the hot and cold limits.



**CALIBRATION OF VALVE PROVIDES SAFETY TO END USER.
PLEASE READ CAREFULLY**

CALIBRATION BY FEEL: Rotate the Swivel Bushing with Square Tube located on the Thermo Cartridge **(Print #1)** all the way to the right (clockwise) to obtain the maximum cold water using either a flat screwdriver inserted into the square tube or wrench on the swivel bushing. Reverse (counter-clockwise) to obtain the maximum incoming hot water. Return right again (clockwise) until the mixed water at the exit point feels correct to the end user. Let water run for 2 or 3 minutes to confirm comfort level. Set the pointer dial at the chosen mark on the dial and carefully fix the set screw. You should set pointer at 95° minimum or you could burn yourself with the hot water.

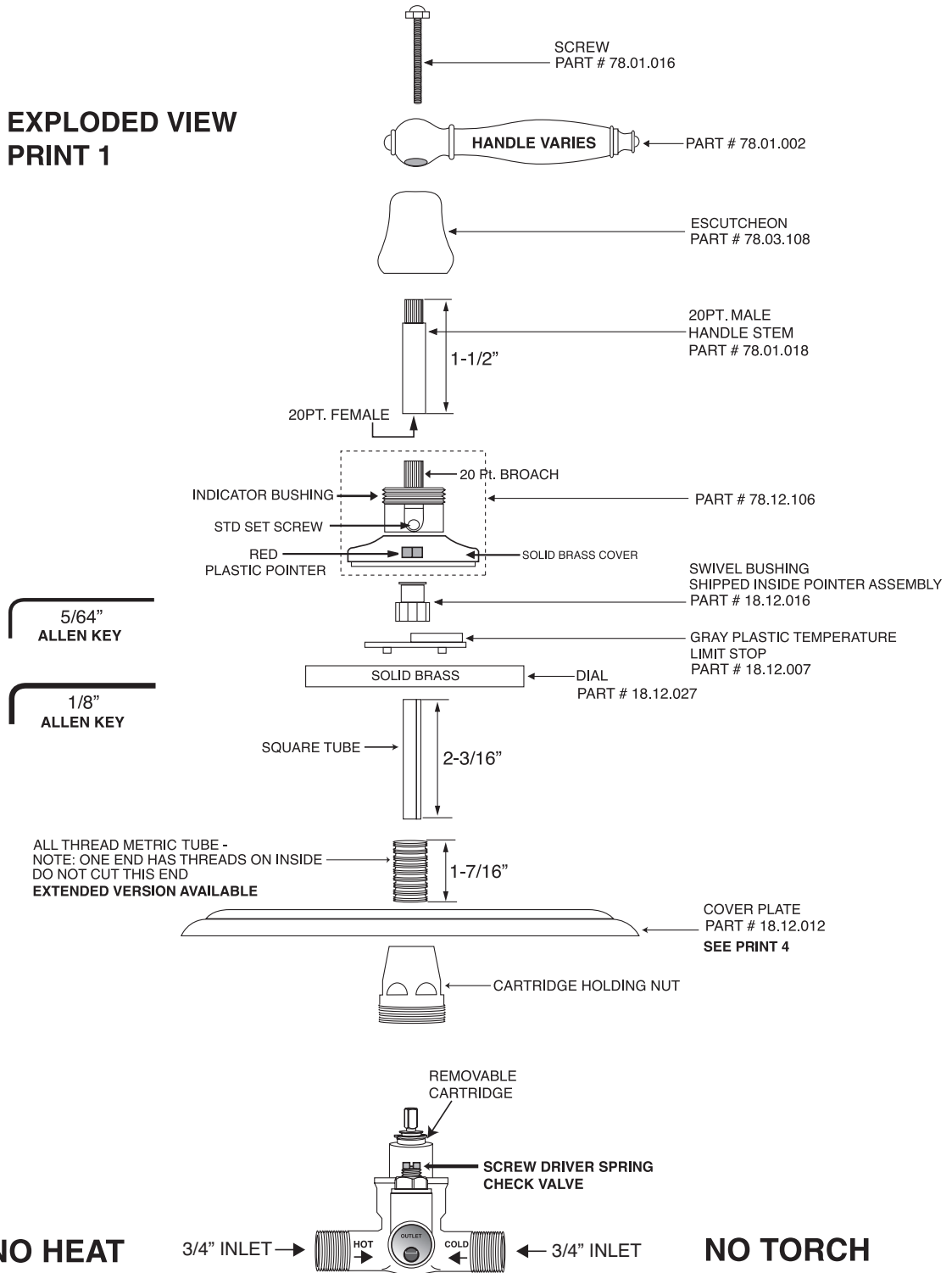
BY THERMOMETER: Rotate the Swivel Bushing with Square Tube located on the Thermo Cartridge **(Print #1)** all the way to the right (clockwise) to obtain the maximum cold water using either a flat screwdriver inserted into the Square Tube or a wrench on the Swivel Bushing. Reverse (counter-clockwise) to obtain the maximum incoming hot water. Return again to the right (clockwise) until the mixed water at the exit point registers a recommended 100° degrees on an instant read thermometer. Let water run for 2 or 3 minutes to confirm comfort level. Set the pointer dial at the 100° mark on the dial and carefully fix the set screw. After installing other system trim parts, valve is ready to enjoy. **SEE PRINT #1 TYPICAL TRIM DETAIL**



1/2" FULL-FLOW THERMOSTATIC VALVE INSTRUCTIONS

1/2" FULL-FLOW EXPLODED VIEW

**EXPLODED VIEW
PRINT 1**

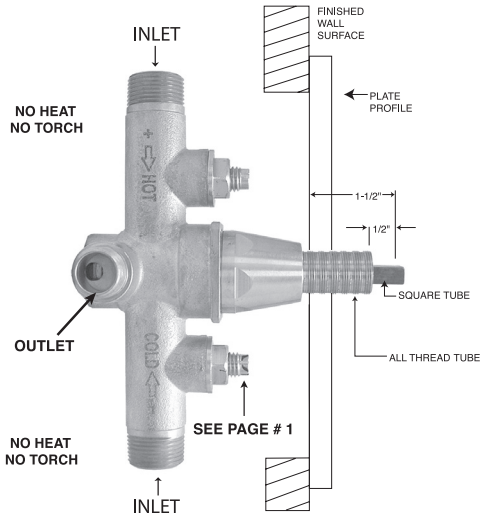


Thermostatic Valve

PRINT 2

THERMOSTATIC VALVE

PROFILE VIEW OF ROUGH VALVE ONLY
1/2" FULL FLOW VALVE



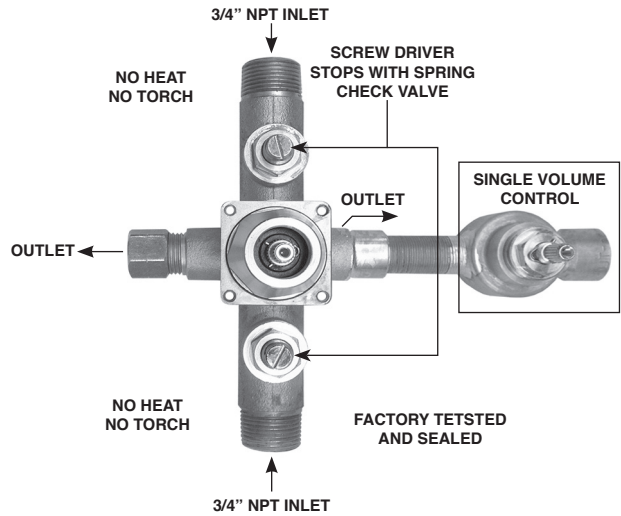
INSTALLER NOTES: THIS VALVE MUST BE INSTALLED AS SHOWN ABOVE

- (1) FROM THE FINISHED WALL TO THE END OF THE SPLINE ADAPTER ALLOW 1-1/2" - PART SHOULD NOT BE CUT - EXTENSIONS ARE AVAILABLE. **THIS SQUARE TUBE IS SHIPPED WITH THE TRIM**
- (2) THIS IS A SPECIAL **ALL-THREAD METRIC TUBE**
CAUTION: ONLY ONE END CAN BE CUT BETWEEN THREADS ONLY **THIS TUBE IS SHIPPED WITH THE TRIM.**

PRINT 3

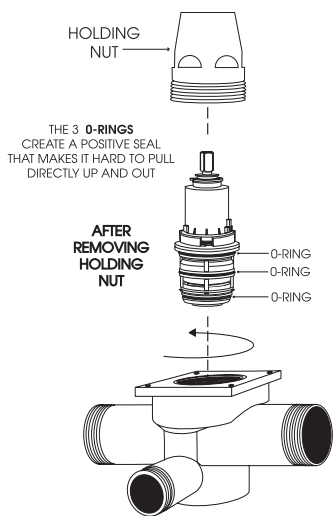
THERMOSTATIC VALVE

1/2" FULL FLOW
WITH SINGLE CONTROL VOLUME



PRINT 5

THERMOSTATIC 1/2" CARTRIDGE REMOVABLE FROM THE TOP

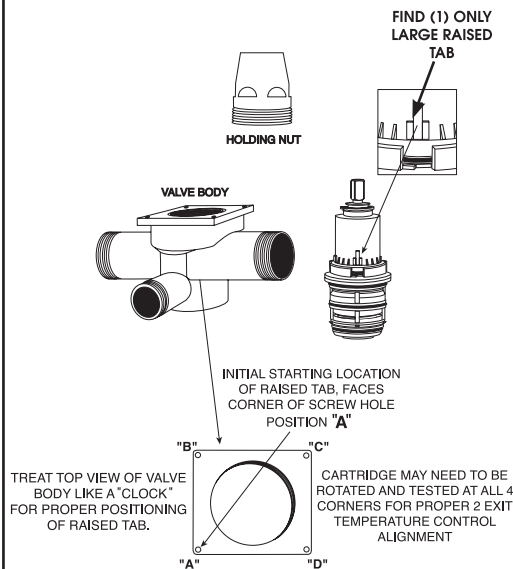


**TO REMOVE CARTRIDGE FROM BODY:
ROTATE CARTRIDGE COUNTER CLOCKWISE ONLY**

**TO RE-SET: (RE-SEAL - PUSH STRAIGHT INTO
BODY AND SECURE WITH HOLDING NUT)**

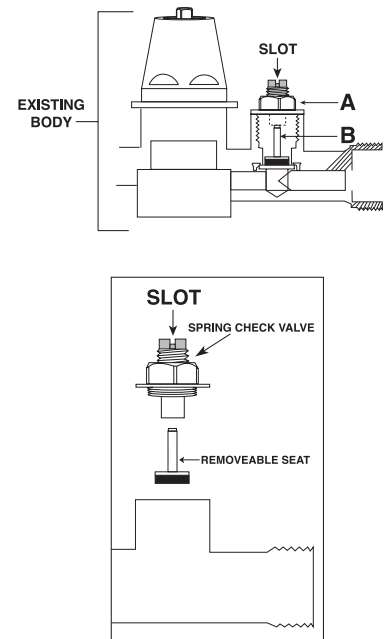
PRINT 6

INSTALLATION AND PROPER ALIGNMENT OF CARTRIDGE FOR 2 EXIT BALANCED TEMPERATURE CONTROL



PRINT 7

SPRING CHECK VALVE



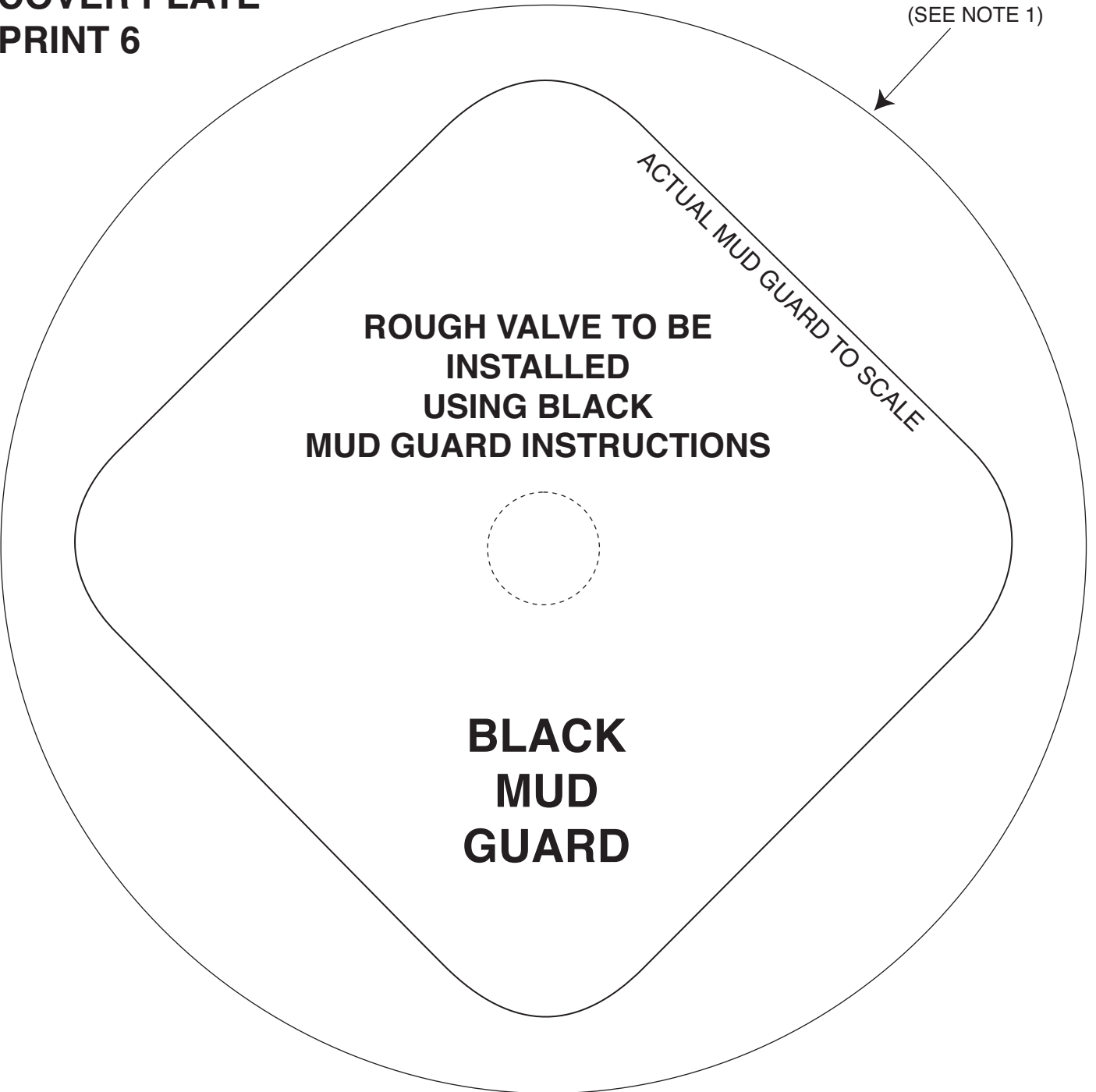
THERMOSTATIC VALVE

-FULL SCALE (1:1) CUTOUT TEMPLATE

FOR 1/2" FULL FLOW SYSTEMS

**COVER PLATE
PRINT 6**

PLATE
(SEE NOTE 1)



NOTES:

1. THE SOLID LINE REPRESENTS THE ACTUAL OUTLINE OF THE TRIM PLATE.
2. FOLLOW INSTRUCTIONS ON MUD GUARD FOR CUT OUTS AND INSTALLATION DEPTH.



AMERICAN FAUCET & COATINGS CORPORATION LIMITED PRODUCT WARRANTY

Product/Finish Warranty: American Faucet & Coatings Corporation warrants that products are free from defects in materials and workmanship for five (5) years from date of invoice. In addition, our Finish Warranty provides limited LIFETIME coverage for Chrome & PVD finishes, five (5) years for Omega powder coated finishes & Polished Gold. Living finishes are warranted for workmanship only. If any material proves to be defective after inspection by our company, it will be repaired or replaced at our discretion at no charge. However, no claims for labor, shipping costs, or consequential damages will be accepted.

What we will do: We will restore any product whose finish proves to be defective back to its original finish at no charge during the appropriate warranty period stated above. Proof of purchase must be provided. After the warranty period, American Faucet and Coatings Corporation will refinish any of its faucets at the prevailing appropriate charge.

What you must do: The faucets must be properly installed according to our instructions and specifications and are for residential use only. The faucets cannot be altered in any way. You must maintain and clean the faucets in accordance with the instructions provided with the product. You must use the faucet(s) for residential use only.

How to obtain service: Send your name, address, and telephone number along with a statement describing the nature of the problem and your paid sales slip or other proof of purchase to:

**American Faucet & Coatings Corporation
3280 Corporate View
Vista, CA 92081
1-800-960-2284**

We will then contact you and take appropriate action. Do not send us any part(s) of your faucet(s) or its various connecting hoses unless we have contacted you and have sent you an approved RGA form. All transportation charges for returned goods must be paid by the customer.

What is not covered: This warranty does not cover the crystal/glass, or porcelain products of any faucet or the drain assembly or aerator on other than the Chrome or PVD finishes. This warranty also does not cover damage caused by accident, alterations, misuse, abuse, normal wear and tear, lime deposits, direct exposure to salty air or corrosive materials, or the color change that takes place with the passage of time, or use in any manner contrary to American Faucet and Coatings Corporation's printed instructions. In the case of in-the-wall installations American Faucet and Coatings Corp. will assume no liability if there is no access. **In no event will we be liable for labor of any kind, incidental or consequential damages.** This warranty is extended in lieu of all other expressed or implied warranties, whether oral or written. **Many installation compounds are harmful to brass and metal finishes. The use of any lead-based or acidic curing adhesive, silicone, mastic, or plumber's putty on or near our finished products will void the finish warranty. Use only sealants which are neutral curing and are not reactive with metal and brass finishes.** American Faucet & Coatings Corporation reserves the right to change, modify or alter its products as deemed necessary. This warranty supersedes any other American Faucet & Coatings Corporation warranties, whether oral or written.

Unless otherwise contrary to state law governing the purchase, American Faucet and Coatings Corporation's liability will not exceed the wholesale price for the American Faucet and Coatings Corporation product considered defective. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion of incidental or consequential damages, so the above limitation may not apply to you.

LIFETIME WARRANTY ON 1/4 TURN CERAMIC DISC CARTRIDGE

Should the ceramic disc cartridge in your faucet ever fail, American Faucet & Coatings Corporation will replace the failed part free of charge to the original purchaser of the product. Your cost will be a \$10.95 handling and mailing charge. Labor not included. When ordering replacements, denote for widespread or centerset lavatory, Roman Tub, or other. Include age of faucet. (This does not include thermostatic, pressure balance, or diverter cartridges.)

NOTICE

American Faucet & Coatings Corporation products are ICC-PMG listed and are tested to ASME A112.18.1M and ASSE 1016, and comply with Section 9 of NSF 61 for basin faucet, bar faucets, and kitchen faucets as required.