THERMOSTATIC SHOWERMASTER  
INSTALLATION INSTRUCTIONS  
(Serial No. MU15, MU20, M15, M20)

1. Valve must NOT be sealed in wall with plaster or tile. Cover screws and inlet fittings MUST be accessible for servicing.
2. This valve is furnished with integral checkstops on each supply.
3. Install hot to left inlet and cold to right inlet as shown.
4. Pipe cement, or solder flux must be used sparingly. After connections are made to the valve, flush pipes thoroughly (remove internal parts if necessary) to eliminate dirt and excess materials which might become lodged on the working parts of the valve.

**WARNING**

WARNING! THIS MIXING VALVE IS EQUIPPED WITH AN ADJUSTABLE HIGH TEMPERATURE LIMIT STOP FACTORY SET AT APPROXIMATELY 110°F (43°C) WITH AN INCOMING HOT WATER SUPPLY TEMPERATURE OF 135°F (57°C) IF INCOMING HOT WATER ON THE JOB IS HIGHER THAN 135°F (57°C), THE VALVE WHEN TURNED TO FULL HOT MAY DELIVER WATER IN EXCESS OF 110°F (43°C), AND THE HIGH TEMPERATURE LIMIT STOP MUST BE RESET BY THE INSTALLER (SEE PAGE 2)

5. Attach protective cover which serves as a guide for the finish wall line after piping connections are made.
6. IMPORTANT! The M20C valve is designed for top outlet only when used for showers, When used for shower AND tub, pipe down to a special twin elbow and diverter tub spout or use an M20CST, (see installation drawings, page 4).
7. After the valve is installed as noted above, recheck and reset the adjustable high temperature limit stop (see instructions, page 2)
8. Mount the wall flange to the valve body, using the TAM-33 wall flange screw.
9. We recommend to seal the flange to the wall with silicone to prevent water from penetrating the wall.
10. Attach the pointer to the valve stem and the 57K 4-arm handle to the on/off volume control stem (using the pointer screw and washer), and insert snap cap.

REMEMBER!! THIS A CONTROL DEVICE WHICH MUST BE CLEANED AND MAINTAINED ON A REGULAR BASIS (SEE MAINTENANCE GUIDE AND RECORD MGR-1000).
OPERATION

The M20(15) is a thermostatic water mixing valve which will compensate for changes in the temperature or pressure of hot and cold supplies and maintain bathing temperatures. The easy to read dial or Hot and Cold indicators on the flange or cover help to eliminate confusion as to where the handle should be located for a particular temperature. Turn the 4 arm handle clockwise to begin the flow of water, when the pointer indicates COLD (or BLUE) on the dial plate, the temperature is cold. As the handle enters the HOT (or RED) area, shower temperature becomes progressively WARMER until the high temperature limit is reached in the full "HOT" position. To turn OFF, move the 4 arm handle in a counter-clockwise direction to stop the flow of water.

SERVICING INSTRUCTIONS

1. Remove pointer (MU-5D), 4 arm handle (57-K) and wall flange (3001) (See DWG A).
2. Turn off hot and cold supplies with a screwdriver at the integral checkstops (DWG B).
3. Remove the four cover screws (M20-2C) to release the cover and thermostatic control assembly (M20-1-12B) (DWG C & D).
4. To Remove Bridge Assembly (MU-1-8B) (DWG E), remove pointer rod nut (M20-10B) and release bridge assembly from the stem.
5. To Disassemble Bridge Assembly (DWG F), remove the holder nuts (M20-5B) with screwdriver in slots provided. Clean port sleeve assembly as noted below.
6. To Clean Port Sleeve Assembly (M20-G1) (DWG F), submerge in clean water or any non-corrosive cleaning solution. DO NOT USE abrasives. Use a soft cloth to remove deposits or stains on the port sleeve assembly (M20-G1). Be certain the thimble moves freely on the port sleeve and reassemble bridge assembly. NOTE! When reattaching bridge assembly, driving ball must engage slot in thimble and the coil bracket (DWG E).
7. To Remove Thermostat Group (M20-G2) (DWG G) Remove stop retaining ring, stop and gland nut. Push rod through center. BE CAREFUL NOT TO PULL COILS OUT OF SHAPE! To clean (if a deposit has collected on the thermostatic coil), brush in a non-corrosive cleaning solution and replace in cover with parts shown.
8. NOTE! FOR COMPLETE REBUILDING KIT ORDER KIT R/M20 (INCLUDES M20-1-12B, M20-3C, M20-10E).

WARNING

WARNING! THIS MIXING VALVE IS EQUIPPED WITH AN ADJUSTABLE HIGH TEMPERATURE LIMIT STOP FACTORY SET AT APPROXIMATELY 110ºF (43ºC) WITH AN INCOMING HOT WATER SUPPLY TEMPERATURE OF 135ºF (57ºC). IF INCOMING HOT WATER ON THE JOB IS HIGHER THAN 135ºF, THE VALVE WHEN TURNED TO THE FULL HOT MAY DELIVER WATER IN EXCESS OF 110ºF, AND THE HIGH TEMPERATURE LIMIT STOP MUST BE RESET BY THE INSTALLER. (SEE BELOW)

TO RESET HIGH TEMPERATURE LIMIT STOP (DWG B):
1. While valve is running, turn pointer (MU-5D) to maximum "H" (HOT) position.
2. Remove pointer, stop retaining ring and stop.
3. Replace pointer and turn stem to the left or right until the valve is delivering the highest temperature 110ºF (43ºC) or lower and remove pointer.
4. Push stop on stem so that its LEFT edge is resting on the fine adjustment screw* on the cover. Turn fine adjustment screw, if necessary, (clockwise for slightly HIGHER temperature, counterclockwise for slightly lower temperature).
* furnished on valves manufactured after February, 1987
5. Replace pointer so its small end is pointing to the extreme "H" (HOT) position.

IMPORTANT! TEST THE NEW HIGH TEMPERATURE SETTING USING A DIAL THERMOMETER TO MAKE CERTAIN IT AS DESIRED. HOT WATER IN EXCESS OF 110ºF (43ºC) IS DANGEROUS AND MAY CAUSE SCALDING!!

REMEMBER!! THIS IS A CONTROL DEVICE WHICH MUST BE CLEANED AND MAINTAINED ON A REGULAR BASIS (SEE MAINTENANCE GUIDE AND RECORD MGR-1000).
SERVICING INSTRUCTIONS

| PACKINGS & GASKETS | 1. Leak at handle. |
| PORT SLEEVE ASSEMBLY | 2. Leaks between valve cover and base. |
| THERMOSTAT GROUP | 3. Volume control will not shut off completely. |
| CHECKSTOPS | 4. Valve delivers either all hot or all cold water, or will not mix consistently. Clean or replace port sleeve assembly. |
| | 5. After replacing port sleeve assembly, valve will not hold temperature. Clean or replace thermostat group. |
| | 6. Hot water by-passes into cold line (or cold into hot). |
| | 7. Supplies cannot be shut off completely. |

Kit 1/M20 includes:
- 1 M20-3C
- 1 M20-3E
- 2 M20-3A
- 2 M20-6B
- 1 M20-6E
- 2 M20-5A
- 2 MU-4C
- 1 M20-10E
- 2 M20-9A

Kit 2/M20 includes:
- 2 M20-3B, M20-6B
- 1 M20-G1, M20-14B

ALTERNATE: ORDER 1 M20-1-8B
Or KIT R/M20 (SEE DWG. E)
KIT R/M20 or 1 M20-G2

Kit 4/M20 includes:
- 2 M20-3A, 2 M20-5A, 2 M20-6A, 2 M20-9A

THIS IS A CONTROL DEVICE WHICH MUST BE CLEANED AND MAINTAINED ON A REGULAR BASIS. (SEE MAINTENANCE GUIDE AND RECORD, MGR-1000).
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