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Installation & Maintenance Manual TIV-125

Emergency Indianapolis Indiana 46218 Shower & Eye/Face Wash **Combination Valve**

Used with all T5000 and T3000 models including but not limited to the following assemblies: **T5510** T5515 T5530 T5535 **T3010** T3015 T3030 T3035

Phone: (888) 445-4142

Note: Gallon per minute ratings may vary depending upon incoming water temperatures and pressures. Hot and cold water inlet pressures must be equal. Provisions shall be made to thermally isolate the valve.

Setting the Mixing Valve

Caution: When maintaining and adjusting the mixing valve, all fixtures should be isolated from Stingray Systems recommends that you use. work safely at all times and in a manner consistent with the OSHA Lock/Tagout standard, 29 CFR 1910.147 and other applicable standards.

This mixing valve has been set at the factory to deliver 85°F outlet flow. Should the valve require adjustment, or an application require a different set temperature, proceed as follows:

- 1. Contact the proper medical and safety authorities to determine the correct water temperature for the specific application (ie. chemicals).
- 2. Remove the #14 spanner screw on top of the cartridge body.
- 3. Create a draw on the mixing valve by opening the downstream eye wash fixture (or shower if eye/face wash not present).
- 4. Insert a 5/32" allen key into the stem opening of the valve and seat in the adjustment screw (not shown). Set the outlet temperature by turning the adjustment screw clockwise to reduce temperature, counterclockwise to increase temperature. Use the dial thermometer to measure the outlet temperature.
- 5. Replace #14 spanner screw.

CAPACITIES – TIV-125

Pressure Drop PSI	5	10	20	30	45
Tempered Flow GPM	11	16	21	30	32
Cold Water Bypass	9	12	17	26	27

Operating Principle

This TIV-125 Emergency Shower & Eye/Face Wash combination mixing valve is made of a thermostat element with a stainless steel sliding piston and liner housed in a nickle-palted bronze casting. The thermostatic cartridge responds to temperature changes in the hot and cold water supplies. In the event the thermostatic element fails or the hot water supply fails, the valve will provide full cold water bypass flow.

Note: Valve must be installed with check valves. If shut off valves are installed in the shower line for maintenance purposes, provisions shall be made to prevent unauthorized shut off.





Testing the Mixing Valve

The integragted mixing valve and emergency fixture should be tested weekly for proper operation.

Valve temperature test procedure is as follows:

- 1. Activate eye wash fixture to observe and record the temperature of the dial thermometer. If the temperature of the thermometer is not correct, readjust the mixing valve according to the section "Setting the Mixing Valve".
- 2. Observe the flow from the eye wash block to ensure an adequate flow of water.

In addition to testing for proper temperature, the cold water by-pass and hot water shut down features of the mixing valve should be tested weekly.

The test procedure is as follows:

- 1. Test valve temperature as described in Step 1 and Step 2 above.
- Shut off the hot water supply to the mixing valve. Observe the outlet flow from the eye wash block to ensure an adequate flow of cold water. A slight drop in flow may occur after shutting down the hot water supply to the mixing valve; however, the drop should be minimal and for a short duration.
- 3. Open the hot water supply to the mixing valve. The thermometer should return to the set temperature.
- 4. Shut off the cold water supply to the mixing valve. The flow of water should shut down rapidly.
- 5. Open the cold water supply. The thermometer should return to the set temperature.

Note: The thermometer should be checked at least every six months.

Replacing the Thermostat Cartridge

The thermostat replacement procedure is as follows:

Note: Stingray Systems, Inc. recommends that you work safely at all times and in a manner consistent with the OSHA Lock/Tagout standard, 29 CFR 1910.147 and other applicable standards.

- 1. Shut off the hot water supply and cold water supply to the mixing valve.
- 2. Unscrew valve cartridge and install a new cartridge assembly.
- Open the hot water supply and the cold water supply to mixing valve. Check the temperature to see if the replacement cartridge is operating correctly. If the temperature requires adjustment refer to the section "Setting the Mixing Valve."



Installing the Fixture

• [WALL MOUNT] Attach TIV-125 Valve Assembly to Wall Mount Plate and Secure Wall Plate to wall with wall anchors (anchors not included).

• [PEDESTAL MOUNT] Secure base plate to floor and thread section of pipe to base and attach manifold.

• Insert Eye/Face Wash Bowl Assembly into Manifold with red drainpipe going into drain fitting. Tighten setscrews on side of Manifold to support tube. Press fit drain fitting on Manifold Assembly to red drainpipe on Eye/Face Wash Bowl Assembly. See figure 1

• Attach two shower upright pieces to manifold, Install plug in the first tee. Discard included loose tee and replace with mixing valve

• Shower boom and shower head may be installed after valve is secured

• Flush system of any debris prior to installing eyeblock

• Loop Eye Piece Safety covers to Eye Block inlet tube on Eye Block Assembly. Press fit Eye Block into Eye/Face Wash Bowl Assembly. *See figure 2*

• Mount sign near the assembled unit at the desired location.

• Installer to provide sufficient support of piping so that the assembled station is not relied on to supply support.

• Connect 1" drain piping to drain outlet at the bottom of the station.

• Open supply line to check for leaks. Push on activator to insure adequate flow and drainage through Eye/Face Wash. Pull back to stop water flow.

Maximum Inlet Pressure: 125 PSI. Minimum Flow Rate: 1.5 GPM.* Recommended Supply Pressure: 65 PSI. Recommended Inlet Temperature: 120°F.**

* Installer shall verify that no single emergency fixture supplied by this device has a minimum flow rate less than 1.5 GPM

** When supplying 140°F or greater, additional outlet controls should be used.

Additional information is avalible at tepid.com

Figure 1 Installation of Eye/Face wash Bowl Assembly



Figure 2 Installation of Quick Switch Eye/ Face Wash Element



Caution: When maintaining and adjusting the mixing valve, the delivered flushing fluid temperature shall be 60°F (15°C) to 95°F (35°C). In circumstances where chemical reaction is accelerated by flushing fluid temperature, a medical advisor should be consulted for the optimum temperature for each application.

Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

(Installer: California law requires that this warning be given to the consumer.)

For more information: www.oehha.org/prop65

Caution: The cold water line must be installed so that it is not affected by excessively hot ambient temperatures. Provisions shall be made to thermally isolate the valve. Cold water pipe installed in the ceilings of boiler rooms or rooms that increase ambient temperature require a recirculating pump.

Note: The valve body must be maintained at an ambient room temperature of above 50°F to prevent premature closure of the safety back-seat mechanism.



Parts Break Down For TIV-125



Repair Kits and Assemblies

ltem	Description	Part No.
Α	TIV-125 Cartridge	000833449
В	Thermometer	000667902
С	1- 1/4" ENP Check Valves (Pair)	000833489

000887362	
008780052	
008780053	
008781057	
008781052	
008781027	
008781022	

GUARANTEE

We guarantee the Stingray Systems Mixing Valve to be free from defects in workmanship and material, and for a period of eighteen (18) months from date of shipment from the factory or one (1) year from date of installation, whichever occurs first, will replace any parts found by us to be defective. We will not be held responsible, however, for any labor incidental to, or for any damages caused by defective material. Each mixing valve is thoroughly inspected and tested under actual conditions at our factory.