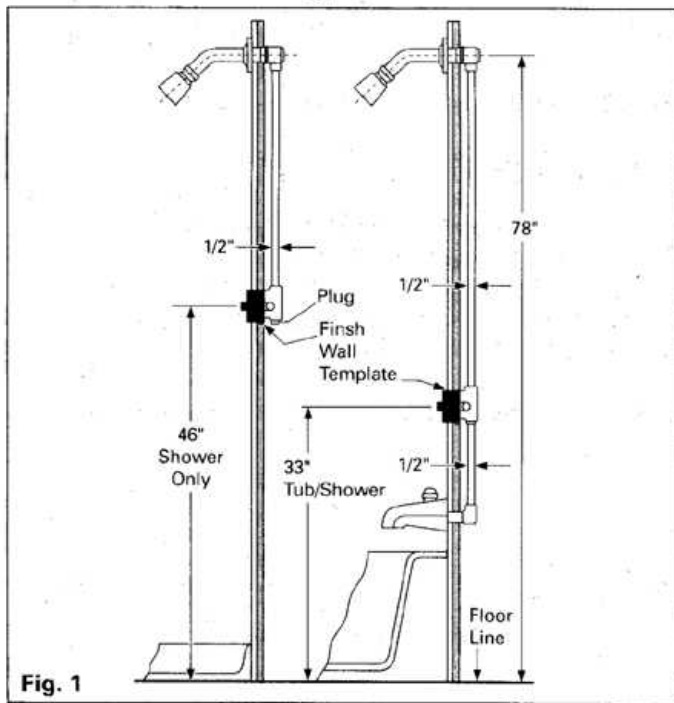


Pressure Balancing Valve Installation Instructions

Description

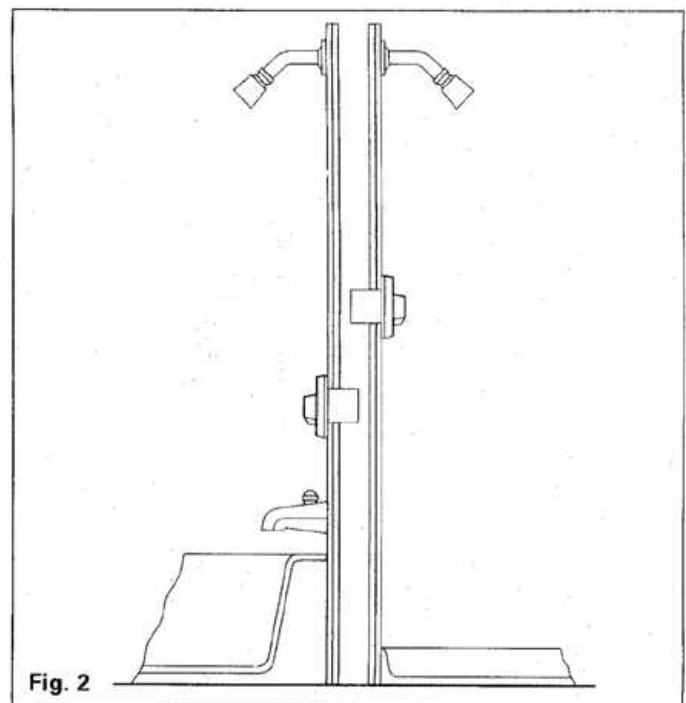
This product is precision engineered to provide satisfactory performance provided it is installed and operated in accordance with our recommendations contained in this manual. In order to fully enjoy the comfort, safety and the reliability of your pressure balancing valve, be certain to familiarize yourself with the contents of this manual.

Standard Installation



Back-to-back Installation

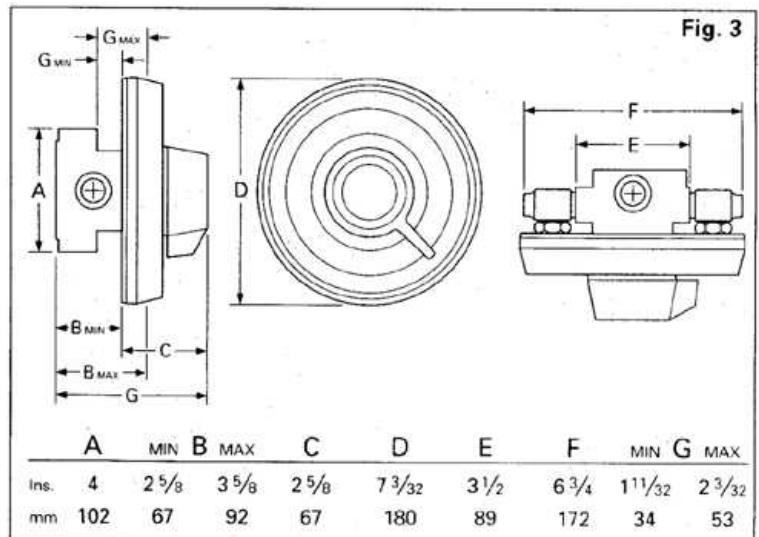
In back-to-back installations, the cartridge must be rotated 180° to ensure proper valve operation.



Specifications and Dimensions

- Min. operating pressure: 20 psi [140 KPa]
- Max. operating pressure: 125 psi [860 KPa]
- Max. test pressure: 500 psi [3450 KPa]
- Hot and cold water inlets: 1/2" IPS or CxC
- Shower outlet: 1/2" IPS or CxC
- Tub outlet: 1/2" IPS or CxC
- Flow capacity: 5 USGPM @ 50 psi
19 l/min @ 345 KPa

Finished wall adjustment: 3/4"
 Maximum Temperature: 180° F (80° C)
 *If PEX (plastic) pipe is to be used from the valve to the tub outlet, do not use PEX with a diameter less than 3/4" as stacking will occur.



Installation

NOTE: Failure to follow these instructions may cause damage or improper operation and nullify the warranty!

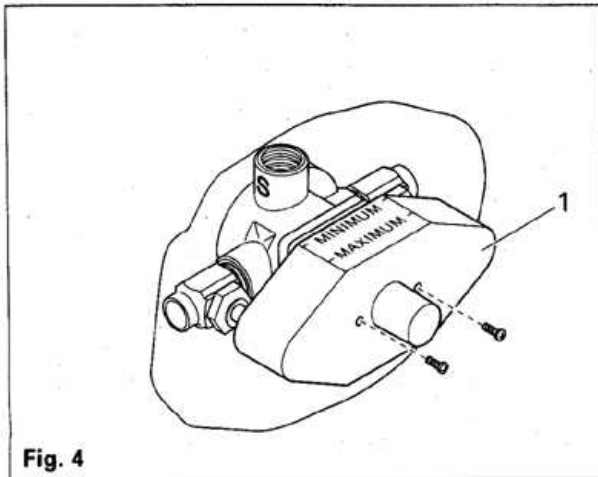


Fig. 4

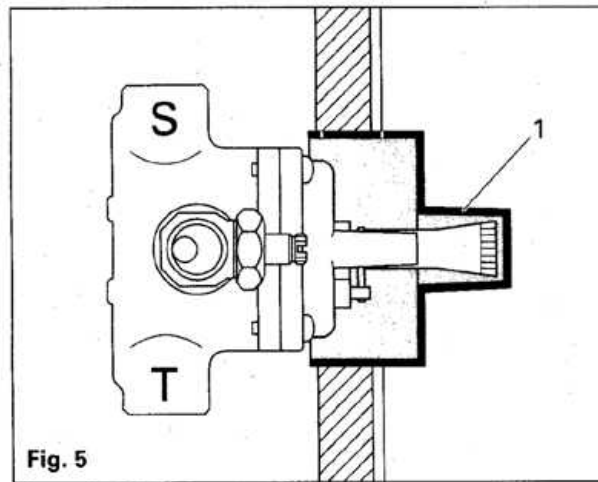


Fig. 5

Rough in

- Position valve with 1/2" shower outlet marked "S" up and the 1/2" tub outlet marked "T" down. Finished wall must be within dimensions shown on finish wall template (1) (see Fig. 4).

Finish wall template (1) must remain intact for finished wall surface measurements and as a template for plastering and/or tiling (see Fig. 5).

IMPORTANT: It is not necessary to remove the pressure balancing cartridge from the valve during normal soldering of connections.

When soldering CxC connections, do not use excessive heat!

To test the pipe joints pressurize both hot and cold inlets.

Thin wall mounting kit

The thin wall mounting kit is designed to simplify the installation of the pressure balancing valve for fiberglass, acrylic or thin wall enclosures. The use of this kit will provide support and exact rough-in dimensions for the pressure balancing shower valve.

Please refer to the installation instruction packaged with the kit.

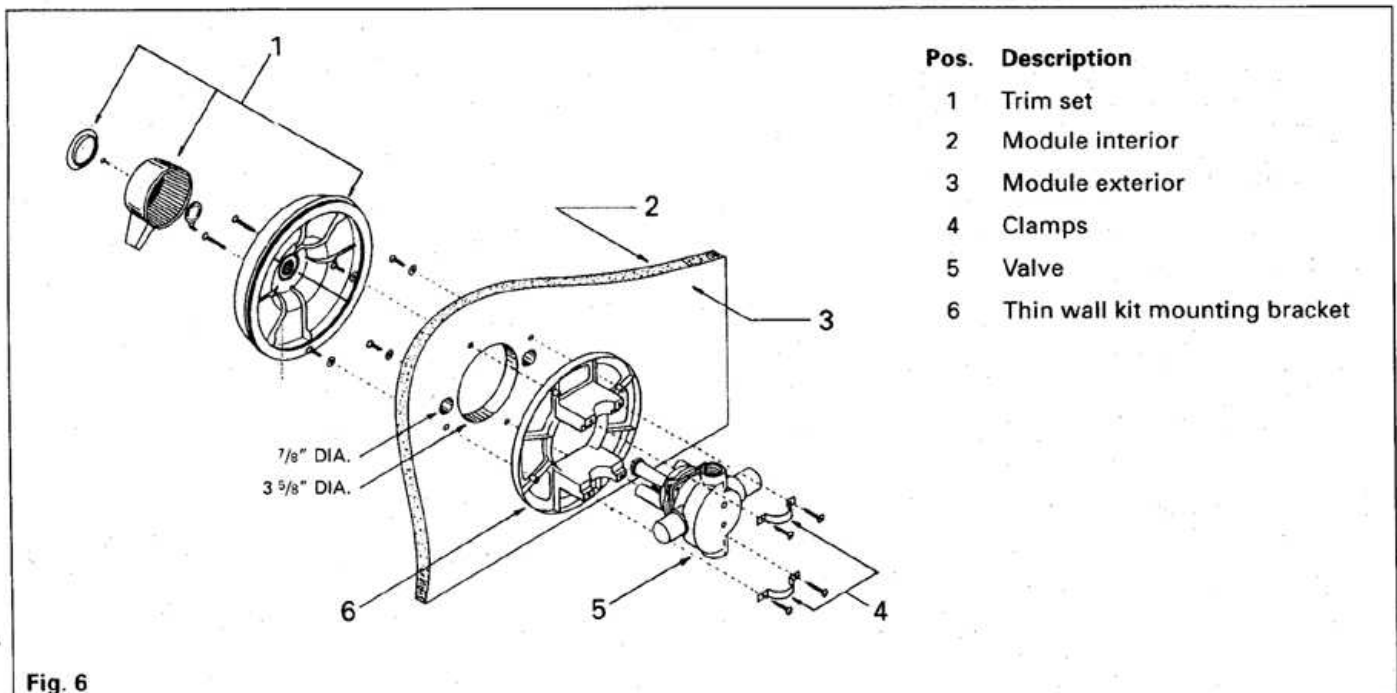
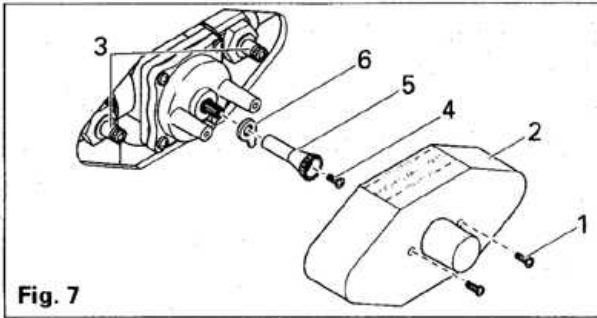


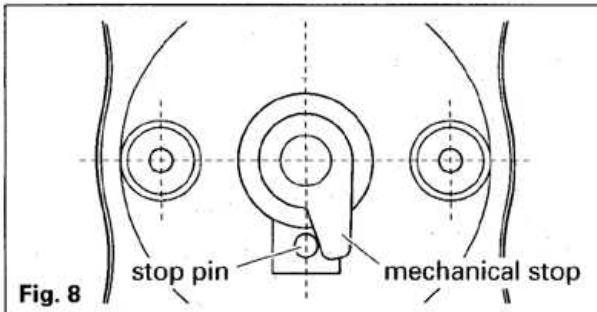
Fig. 6

Pos.	Description
1	Trim set
2	Module interior
3	Module exterior
4	Clamps
5	Valve
6	Thin wall kit mounting bracket

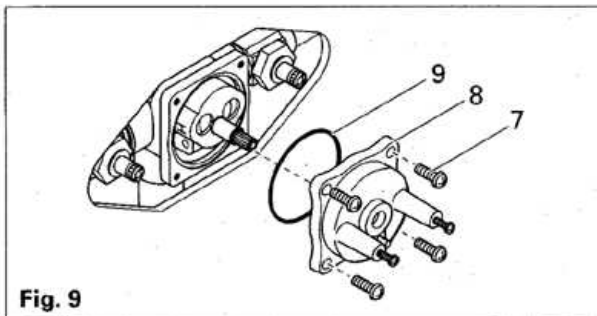
Back-to-back installation



- Remove the two screws (1) to remove the finish wall template (2).
- If the valve body is equipped with service stop valves (3), close the hot and cold water supplies. Otherwise, shut down the supply at the nearest source.
- Remove the screw (4) to remove the plastic valve stem driver (5).

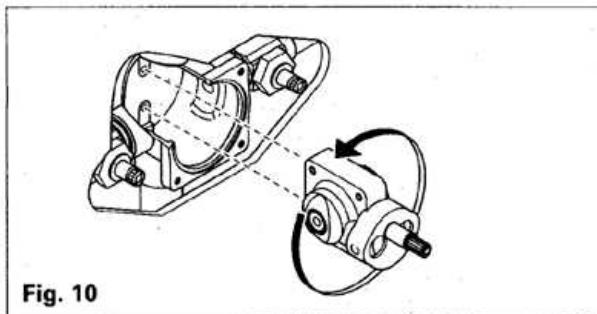


- Pay close attention to location setting of the mechanical stop (6).
- Remove the mechanical stop.



- Loosen the four corner screws (7) and remove the valve cover (8) with the O-ring (9). The cartridge assembly is now exposed.

- Pull the cartridge out. Do not damage the O-ring seals.
- Reverse the cartridge 180° by turning it upside down. Place it into the valve body. Two alignment pins located on the rear of the cartridge must sit in the locating holes within the valve body. Notice position of hot ("H") and cold ("C") markings on the cartridge to assure the correct reversal in relation to the back-to-back installation.



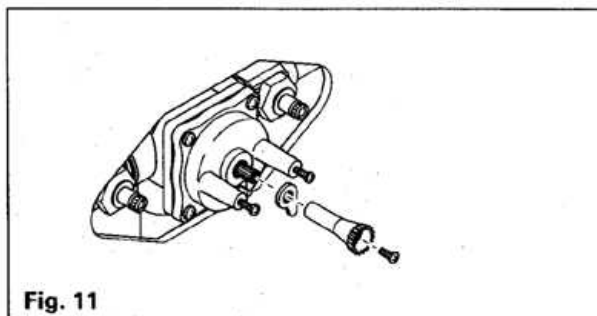
- Put the O-ring on the valve cover. Make sure the surface of the valve cover, on which the O-ring will sit, and the O-ring are both clean.

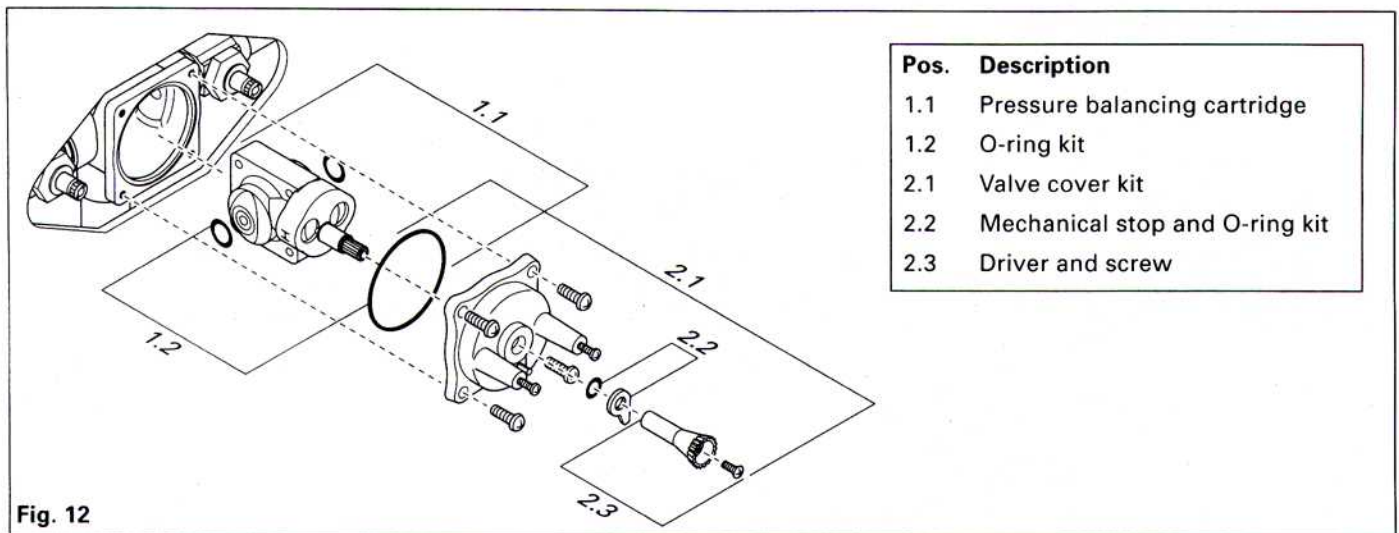
- Position the valve cover with stop pin facing down. Seat the cover to the body. Do not pinch the O-ring. The assembly should fit together with a minimum of pressing force.

- Tighten up the cover screws, first lightly and diagonally and then more firmly.

- Close the valve by turning the cartridge stem clockwise. The stem driver can be used to turn the stem. Position the mechanical stop as shown in Figure 8 over the cartridge stem and push it into place.

- Install plastic stem driver with screws.





Pos.	Description
1.1	Pressure balancing cartridge
1.2	O-ring kit
2.1	Valve cover kit
2.2	Mechanical stop and O-ring kit
2.3	Driver and screw

Trouble Shooting

MALFUNCTION	CAUSE	REMEDY
Shower control opening through hot.	Hot and cold water supplies have been connected in reverse.	Rotate cartridge as described in "Back-to-back installation".
Tub filler or shower head drips after shutting off the valve.	Water remains in the piping column to the shower head. (This is normal) Incorrect setting of the mechanical stop against the stop pin causing a partially opened cartridge. O-ring seal on the inlet of the cartridge is faulty.	Allow approximately 3-5 minutes to drain column, or push lever on tub spout to the tub fill position.* Reset the mechanical stop as described in Figure 8 on page 3. Check the O-ring for cuts or damage and replace if necessary.
Shower insufficiently hot.	Adjustable handle position stop incorrectly set.	Refer to the instruction on "Trim Set for Concealed Valves". Check hot water source temperature setting.
No flow of hot or cold water.	Either the hot or cold side is not fully pressurized. Debris caught inside the inlet of the cartridge. Valve could be too deep into wall.	Be sure service stops are both wide open and system is fully pressurized. Remove cartridge and flush out or remove any debris lodged inside the hot or cold inlets. Install either the 1/2" or 3/4" extension kit.
Valve body too deep into wall.	The measured rough in or finished wall surface is incorrect.	Install either the 1/2" or 3/4" extension kit.

***Note: At no time try to stop dripping by applying extreme force when closing the valve!**

Maintenance

This cartridge is designed for the minimum of maintenance in normal domestic use. If a malfunction occurs then this will probably necessitate a complete cartridge replacement. The cartridge contains no internally serviceable parts! Contact your installer or dealer.