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HORNE S110A/407A SHOWER PANEL

FOR SURFACE MOUNTING WITH TIMED FLOW CONTROL

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

NOTE: The S110A and S407A shower panels are identical except for the shower outlet fittings. All comments about the S110A in these instructions equally refer to the S407A.

These surface mounted shower panels should be supplied only with pre-mixed water from a suitably sized thermostatic mixing valve preset to provide warm water at the shower outlet at 41 °C.

Supply Water Pressure Requirements

The minimum water pressure required to achieve a spray at the shower head is a dynamic head of 5m (8psi, 0.5 Bar). Note that the dynamic head is the pressure measured with the water running.

Where one supply is tank fed and the other pressurised (e.g. cold mains and tank fed hot, or pressurised hot and tank fed cold), a pressure reducing valve on the higher pressure side is not required provided the lower of the two pressures is equivalent to at least a 5m (8psi, 0.5 Bar) dynamic head at the sprayhead.

The maximum recommended dynamic supply pressure is 6 Bar (90psi, 60m head) for hot, and 10 Bar (150psi, 100m head) for the cold.

Water and Energy Conservation

The S range of Horne shower panels are fitted with flow regulators at the shower outlet to reduce the flow rate and conserve water and energy. The drawings at the end of this document provide information for accessing the flow regulators for removal or replacement.

Supply Water Temperature Requirements

The water supply to the S110A should be premixed through a thermostatic mixing valve (TMV) upstream of the shower. The valve should be set such that the water discharging from the shower outlet does not exceed 41 °C. Information regarding the optimal size of valve for a group showering application is available using our Valve Sizing Tool on our website.

Temperature Adjustment

The mixed water temperature is not user adjustable.

HORNE S110A SURFACE MOUNTED SHOWER PANEL

INSTALLATION INSTRUCTIONS

General

The surface mounted panel is supplied with a fitting kit containing the necessary fixings to attach it to the wall and hex keys to assist with routine maintenance.

Installation

Installation of the pre-plumbed enclosure is particularly simple and involves mounting the enclosure on the wall and connecting and flushing the water supply pipes.

1) Position the Pre-Plumbed Enclosure

Identify a suitable position for the pre-plumbed enclosure and mark a line on the wall level with the top of the casing. Mark a point on the wall for the support screw that is on the required centreline for the panel 35mm below the line of the top of the casing (see Fig. 1).

2) Install the Support Screw

Drill a 7.0mm dia. hole in the wall and insert a wall-plug and screw, leaving the head of the screw a few mm from the wall surface.

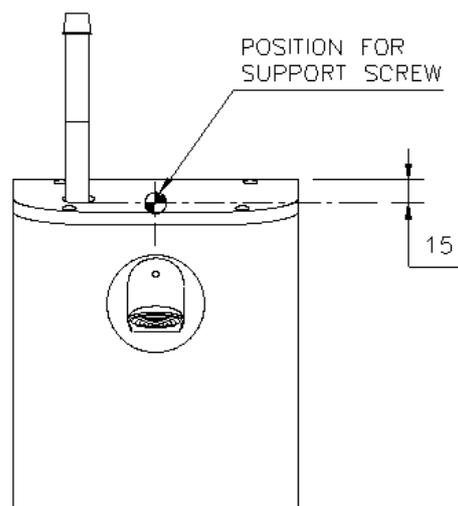


Fig. 1

3) Hang the Enclosure on the Support Screw

Release the top cover of the pre-plumbed enclosure using the supplied hex key to remove the retaining screws (if preferred, the top cover may be completely removed). Hang the pre-plumbed enclosure on the support screw by the larger hole in the middle of the backplate and let this take the weight of the enclosure (See Fig. 2).

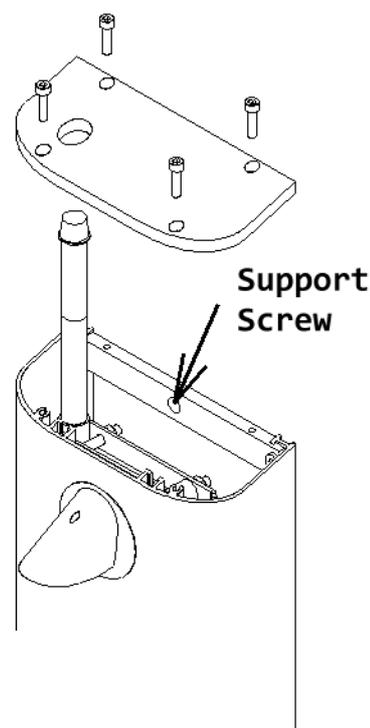


Fig. 2

4) Mark Out the 4 Support Holes.

Ensure that the enclosure is hanging true and then mark out the holes for the 2 upper support holes. Remove the bottom cover of the pre-plumbed enclosure using the supplied hex key and mark out the 2 lower support holes (see Fig. 3).

5) Drill Support Holes.

Carefully remove the pre-plumbed enclosure from the temporary support screw and, being careful not to scratch the enclosure or top and bottom covers, lay it down where it will not be damaged. Drill 4 x 7mm dia. support holes and install the wall plugs.

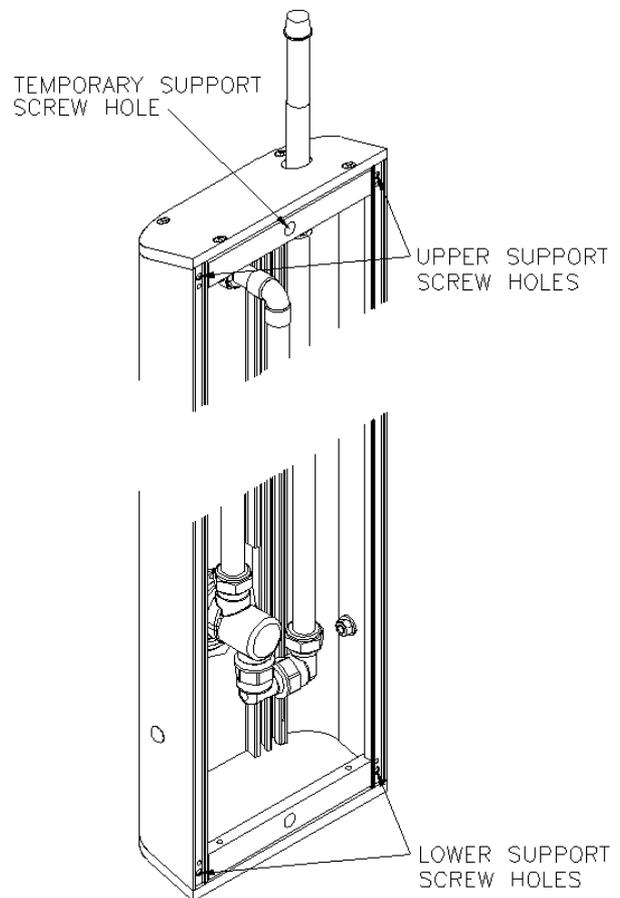


Fig. 3

6) Attach the Pre-Plumbed Enclosure to the Wall

Carefully re-hang the pre-plumbed enclosure on the temporary screw and then attach it firmly to the wall by the other 4 screws.

IMPORTANT: Put the four supplied plastic screw bushes in the mounting holes in the panel before inserting the screws (See Fig. 4).

Use the stainless steel screws supplied. A bead of silicon mastic can be used, if required, to cover any gaps behind the panel on uneven walls.

However, **do not** mastic the lower End Cap to the wall. This provides access for maintenance and drainage of the panel.

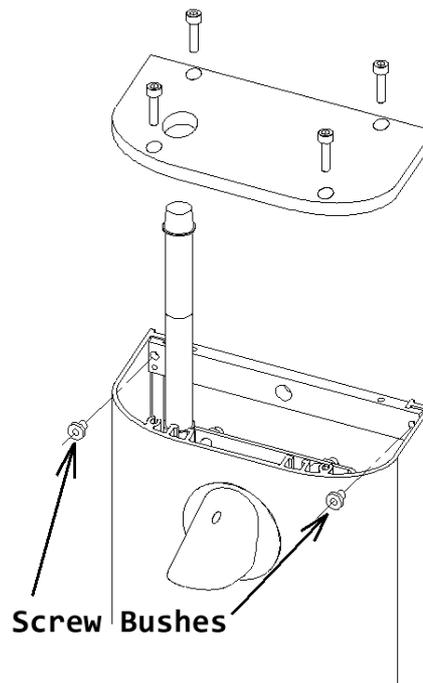


Fig.4

7) Flush the Pipework

Flush out the pipework in accordance with Water Bylaws 2000 (Scotland) and BS 6700:1997 England and Wales.

8) Connect the Supply Pipe

Ensure that the top cover of the pre-plumbed enclosure is replaced prior to connecting up the supply pipe (See Fig. 5).

Connect the MIXED water supply to the inlet at the top of the panel.

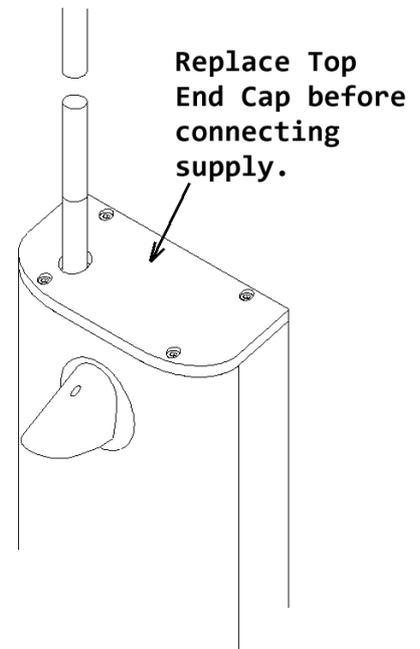


Fig.5

9) Test for Leaks in Pipework

Open the supplies and check for any leaks at the supply pipe joints. Water should not flow from the sprayhead as the push button timed flow control has not yet been pressed. Make good any leaks found. The valve is now ready for commissioning.

Note that if any controls, enclosure or shower sprayhead require cleaning then care must be taken not to scratch them in the process. Wash off any surface dust before cleaning with soapy water.

DO NOT USE ANY ABRASIVE CLEANERS OR SOLVENTS OR THE SURFACES MAY BE DAMAGED.

Supplementary Installation Instructions for B, Rear Entry, Variants.

S Shower Panels are available in versions with a flexible, braided stainless steel inlet hose rather than top entry pipework. The hose used is lined with PEX (cross-linked polyethylene). It is **not** EPDM lined. These shower panel versions have Product Reference codes with the suffix **B**, e.g. **S110B**.

The main difference, from an installation point of view, is that the mixed water supply may have to be connected before the pre-plumbed enclosure is attached to the wall.

Accordingly, **point 8** on the preceding installation instructions (Connect the Supply Pipe) should be performed before point 6 (Attach the Pre-Plumbed Enclosure to the Wall) unless alternative access is available to the connection, e.g. via an access panel.

Care should be taken to ensure that the weight of the pre-plumbed enclosure is taken by the mounting screws and **NOT** by the hose.

COMMISSIONING

ENSURE THE PIPEWORK HAS BEEN FLUSHED OUT BEFORE COMMISSIONING THE S110A

Run the shower by pressing the push button timed flow control. The shower will run for approx. 55 seconds before the flow stops and the button needs to be pushed again. Allow the shower to run until the water temperature has stabilised, pressing the push button as required to maintain the flow.

Record the water temperature at the shower head. If the temperature is in excess of 41°C the setting of the upstream thermostatic mixing valve should be adjusted. Please refer to the TMV manufacturer's commissioning instructions for resetting the TMV temperature and performing a cold water failure test.

The Timed Flow Control Cartridge supplied with all variants has an adjustable duration, and is factory set to 55 seconds (maximum duration). This is adjusted using the supplied Hex Key through the hole in the front of the Pushbutton, Fig. 6.

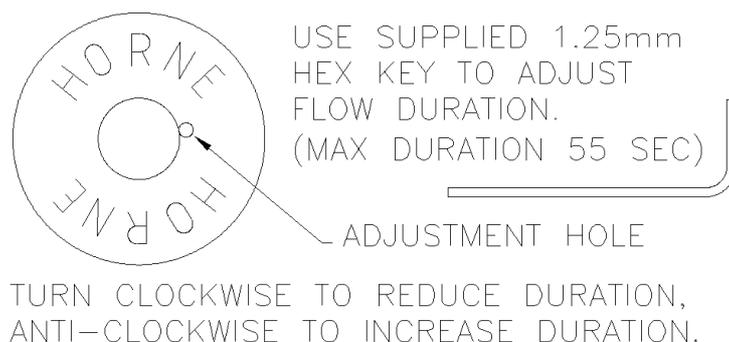


Fig. 6.

MAINTENANCE

Note that maintenance of the Thermostatic Mixing Valve (TMV) supplying the shower panel is essential in order to ensure the continued safety of those using the shower panel. Any problems relating to water temperature are a function of the TMV supplying the shower panel, and not anything to do with the shower itself.

The shower panel itself has no particular maintenance requirement. However, if the performance of the shower panel deteriorates then the following should be checked:-

If the duration of the timed flow control begins to shorten significantly then this could be a sign that the cartridge requires cleaning. Over a period of time (or on a new installation if the water supplies have not been flushed through adequately), sediment and other particulate matter can get trapped in the Timed Flow Control and shorten the flow duration.

The Timed Flow Control (TFC) cartridge can be removed for cleaning or replacing as follows:-

1) Isolate the water supply to the shower panel.

2) Using a thin jaw spanner, unscrew the cartridge by the 2 flats shown in Fig. 7.

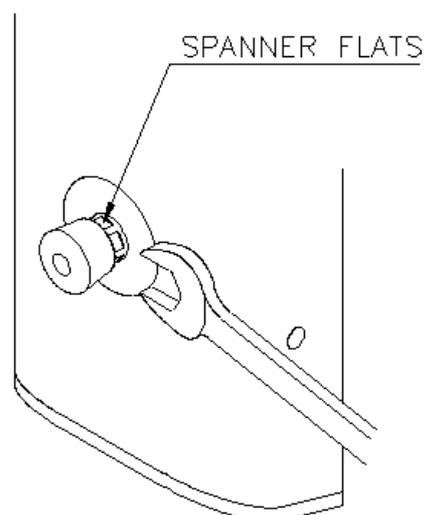


Fig. 7

3) Remove the TFC cartridge (Fig. 8) from the panel. Do not place this anywhere that it could gather dust or dirt. The cartridge is very susceptible to contamination.

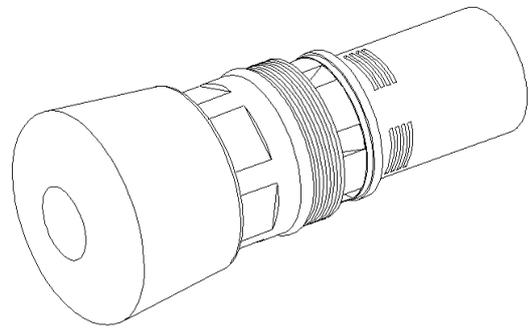


Fig. 8

4) Remove the timer cylinder (it pulls off the cartridge as shown in Fig. 9) and rinse it out thoroughly in clean running water, using soap and a toothbrush if required. **Do not** use any abrasives on the cylinder or the cartridge may be irreparably damaged.

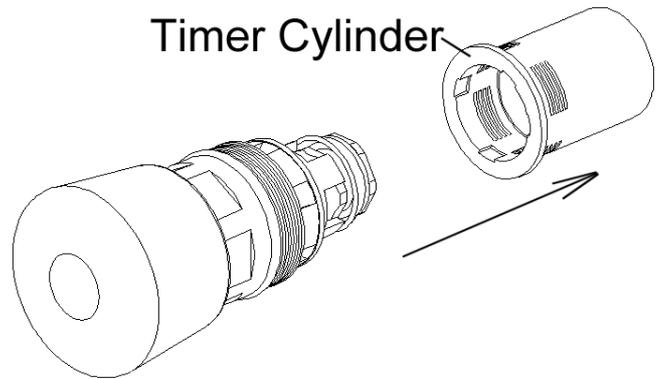


Fig. 9

5) Clean the timer seal (Fig. 10) on the piston and thoroughly flush this part of the assembly under clean running water. Note that if the seal is damaged then a replacement cartridge should be obtained. The cartridge has no user serviceable parts – spare seals are not available and cannot be fitted to the cartridge.

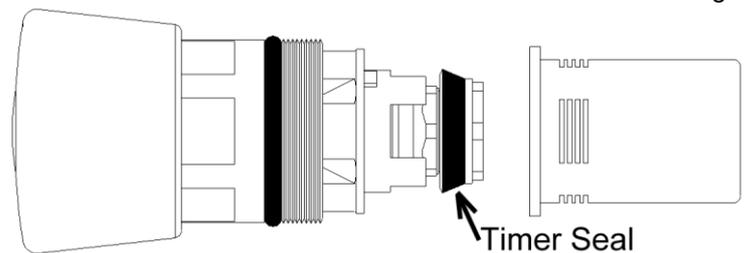


Fig. 10

6) When reassembling the cylinder onto the cartridge, be careful to assemble it in the correct orientation. The cartridge has an alignment tang (Fig. 11) and the cylinder has 4 alignment slots. Two of these slots are close together, and two are spaced apart.

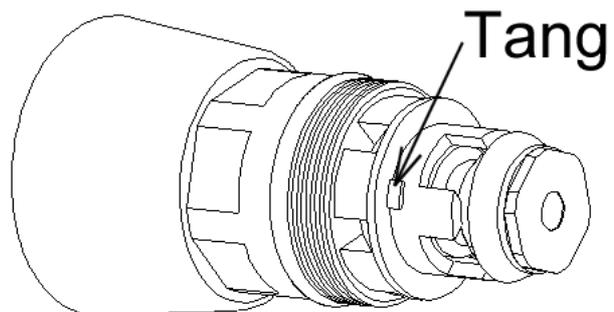


Fig. 11

The tang should be assembled into the clockwise (right hand) of the two close together slots, as shown in Fig. 12. The alignment between the tang and slots affects both the flow rate and the flow duration.

Assemble the cartridge into the shower panel, tighten to 12 Nm and test the shower panel to ensure that the flow duration is adequate. If cleaning the cartridge fails to restore performance then the cartridge should be replaced.

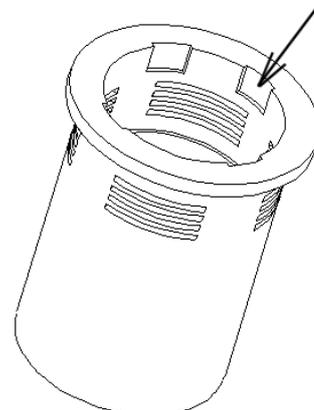
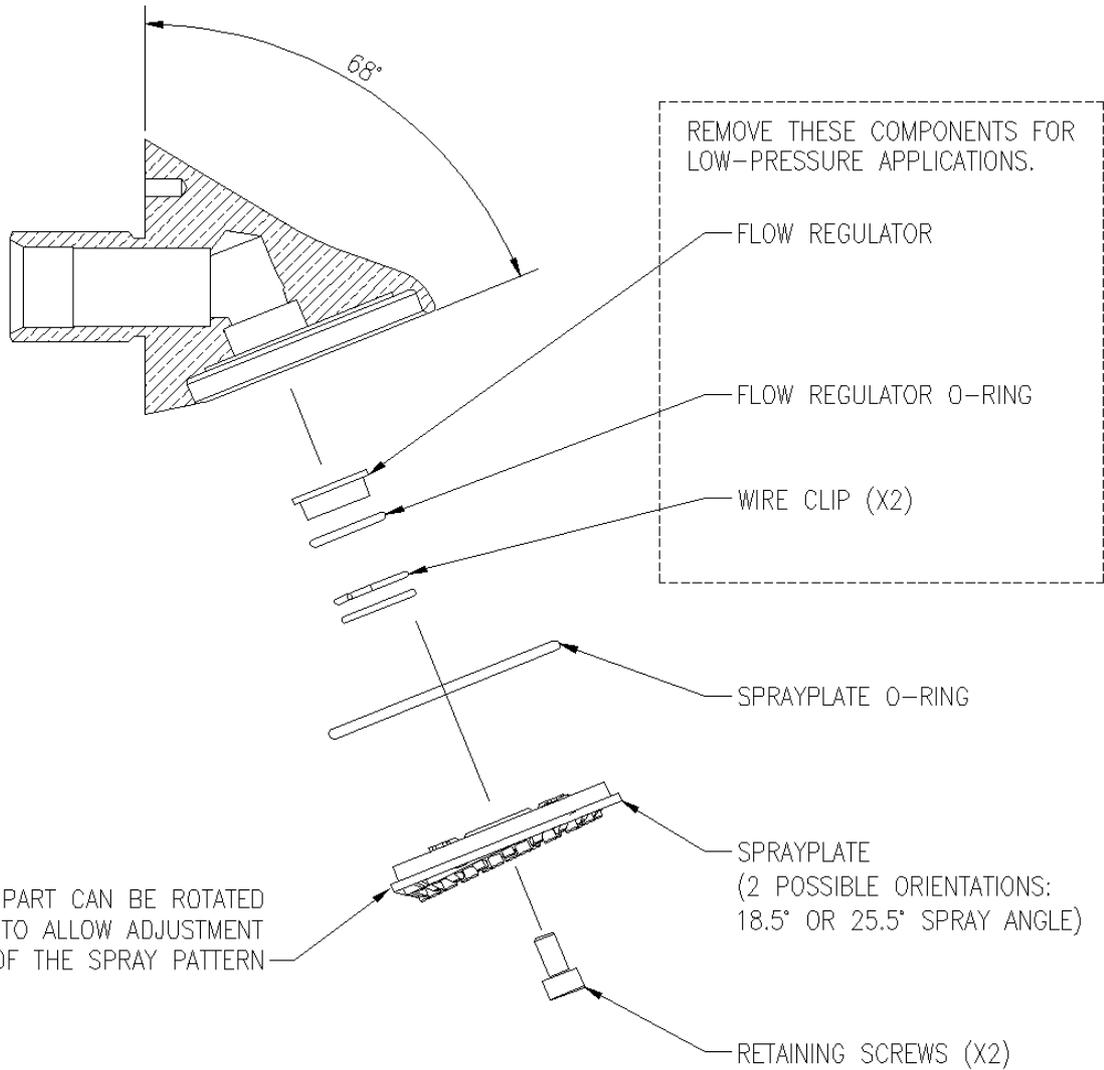


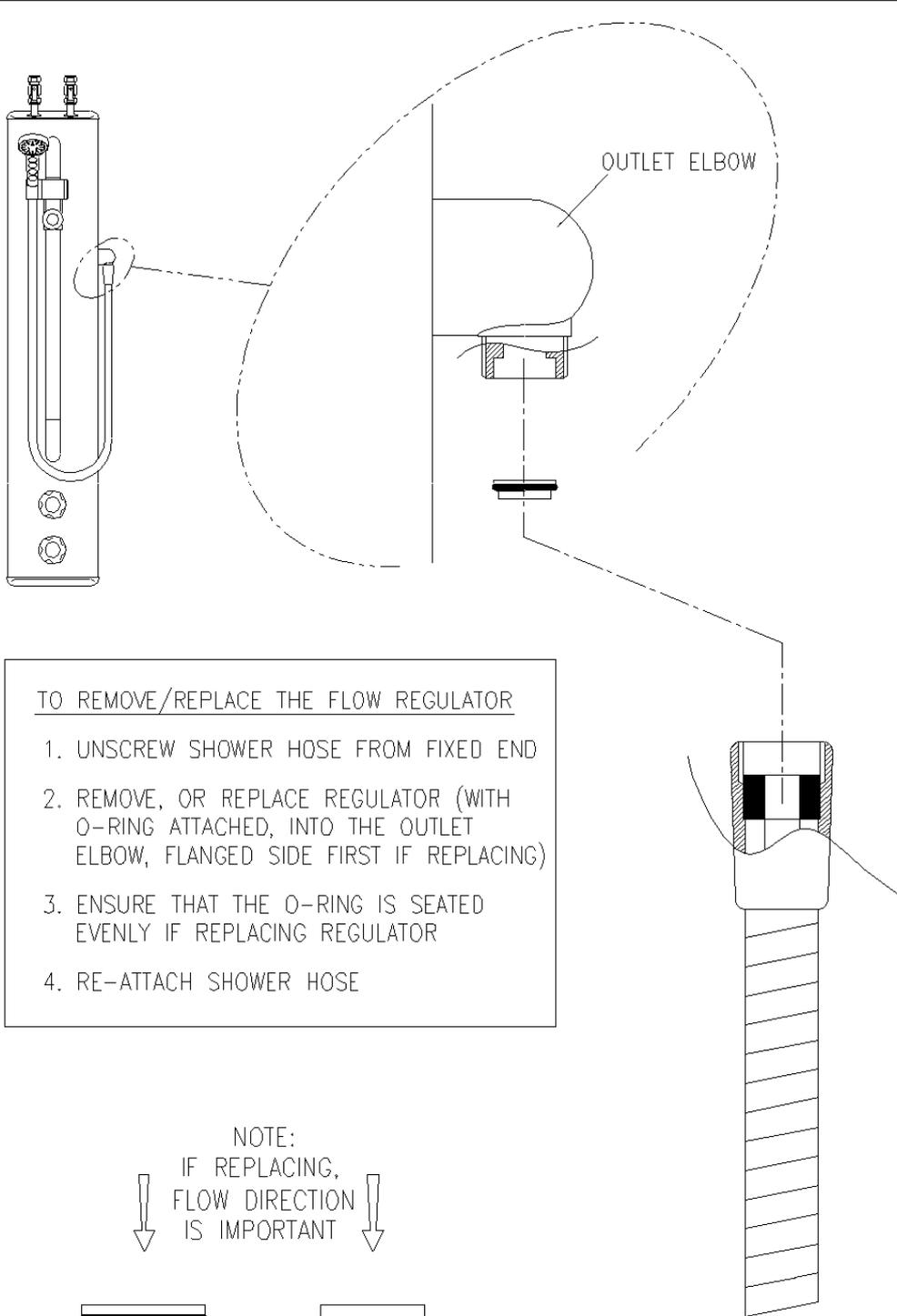
Fig. 12



NB: ENSURE CORRECT ORIENTATION OF FLOW REGULATOR

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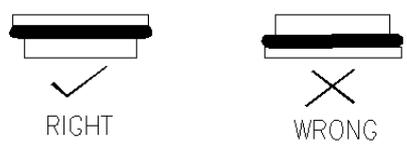
PART :		MATERIAL : N/A		HORNE ENGINEERING LTD. JOHNSTONE RENFREWSHIRE	
HORNE VANDAL-RESISTANT SHOWER HEAD		PRODUCT :			
SHOWER PANEL RANGE		SCALE	DO NOT SCALE	DR'G. No. 10388	
		DRAWN	MJ (15/12/11)		
		CHECKED			
		ISSUE	1		



TO REMOVE/REPLACE THE FLOW REGULATOR

1. UNSCREW SHOWER HOSE FROM FIXED END
2. REMOVE, OR REPLACE REGULATOR (WITH O-RING ATTACHED, INTO THE OUTLET ELBOW, FLANGED SIDE FIRST IF REPLACING)
3. ENSURE THAT THE O-RING IS SEATED EVENLY IF REPLACING REGULATOR
4. RE-ATTACH SHOWER HOSE

NOTE:
IF REPLACING,
FLOW DIRECTION
IS IMPORTANT



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PART : FLOW REGULATOR REMOVAL/REPLACEMENT INSTRUCTIONS		MATERIAL : N/A		HORNE ENGINEERING LTD. JOHNSTONE RENFREWSHIRE	
		PRODUCT : HORNE SHOWERS ALL HANDSET MODELS			
		SCALE	DO NOT SCALE		
		DRAWN	GDP 7/12/05		
		CHECKED			
		ISSUE	1	DR'G. No. 9302B	