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**HORNE T109A/306A/307A THERMOSTATIC SHOWER VALVE
 FOR SURFACE MOUNTING WITH TIMED FLOW CONTROL
 INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS**

NOTE: The T109A, T306A and T307A are all identical except for the shower outlet fittings. All comments about the T306A in these instructions equally refer to the T109A and the T307A.

Approvals

The Horne 15 Type H1503 Thermostatic Mixing Valve used in the T109/T306/T307 shower panels has been independently tested by the WRc-NSF and approved to the requirements of *NHS Model Engineering Specifications D08 Thermostatic Mixing Valves (Healthcare Premises)* to the following designations for shower applications.

HP-S	Shower with supply pressures of 1 – 5 Bar and unrestricted flow rate
LP - S	Shower with supply pressures of 0.2 – 1 Bar and unrestricted flow rate

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.*

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

Where the shower panel is fed by supplies with differing pressures, a pressure-reducing valve (PRV) may be required on the inlet with the higher pressure. If the lower inlet pressure is low enough (typically 0.5 to 1Bar dynamic) that the flow-regulator in the outlet fitting (see pages 9, 10, 11) can be removed, then a PRV should not be required. If the lower of the 2 supply pressures is higher than around 1 Bar, then a flow-regulator will likely be required to restrict flow. If the flow-regulator is installed, and the supply pressures are substantially unbalanced, then a PRV could also be needed to prevent pulsing of the flow. Although thermostatic performance is unaffected by this, the flow pulsing is often considered undesirable.

Note that output flowrate is always determined by the lower of the two inlet pressures.

Supply Water Temperature Requirements

Max. Hot water temperature* 85°C

Min. Hot water temperature# 55°C

Max. Cold water temperature# 20°C

Note that requirements marked * originate from WRAS approval of non-metallic components, and those marked # originate from HTM 04-01, Part B, 2007.

Temperature Adjustment

The mixed water temperature is not user adjustable. It is pre-set at approx. 41°C, but should be checked, and adjusted if necessary, on site during commissioning to suit prevailing conditions and requirements.

Water and Energy Conservation

The TSV1 range 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.

General

Every T306A is supplied with a single check valve and integral large area strainer on each inlet. The Shower Panel terminates in 15mm copper pipes for hot and cold supplies. The hot pipe is on the left, cold on the right, when viewed from the user's perspective.

Note that a T306B model is also available. A "B" suffix indicates that the shower panel is equipped with braided stainless-steel hoses with SOFT-PEX liner at the inlets instead of copper pipes. These permit recessed water entry from behind the panel, rather than above. The final page of the installation section (page 5) of this document provides installation instructions for B variants.

Also note that ligature resistant models (e.g. T109ALR, T109BLR) are also available, which feature a ligature resistant shroud around the push-button timed flow control.

INSTALLATION

The surface mounting enclosure is supplied with a fitting kit containing the necessary fixings to attach it to the wall.

Mounting Height

When considering what height to mount the TSV1 panel, local needs should be accounted for (e.g. height of users, wheelchair or ambulatory users, size of shower enclosure, etc). However, a good starting point is to mount the top of the TSV1 panel 2 metres from the finished floor level. In the case of the 306 models (with the chromium-plated droop-arm and swivel shower head), 2.1 metres from finished floor level is usually a better height.

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 Enclosure and mark a line on the wall level with the top of the casing. Mark a point on the wall 15mm below this line and on the required centreline for the support screw (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 11-13mm from the wall surface. Note that a stainless-steel screw is supplied for this (corrosion resistant).

3) Hang the Enclosure on the Support Screw

Release the top cover of the pre-plumbed enclosure by removing the four Torx T20 screws. Hang the pre-plumbed Enclosure on the support screw by the larger hole in the middle of the back strap and let this take the weight of the Enclosure. See Figure 2.

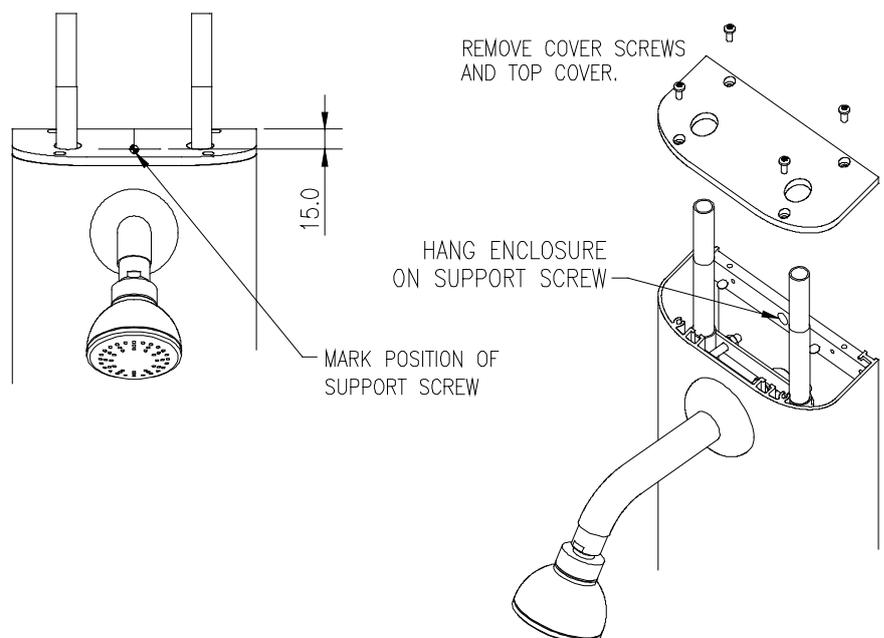


Figure 1.

Figure 2.

4) Mark Out the 4 Support Holes

Ensure that the Enclosure is hanging true and then mark out the positions for the 2 upper support holes. Remove the bottom cover of the pre-plumbed Enclosure and mark out the 2 lower support holes, see Fig. 3.

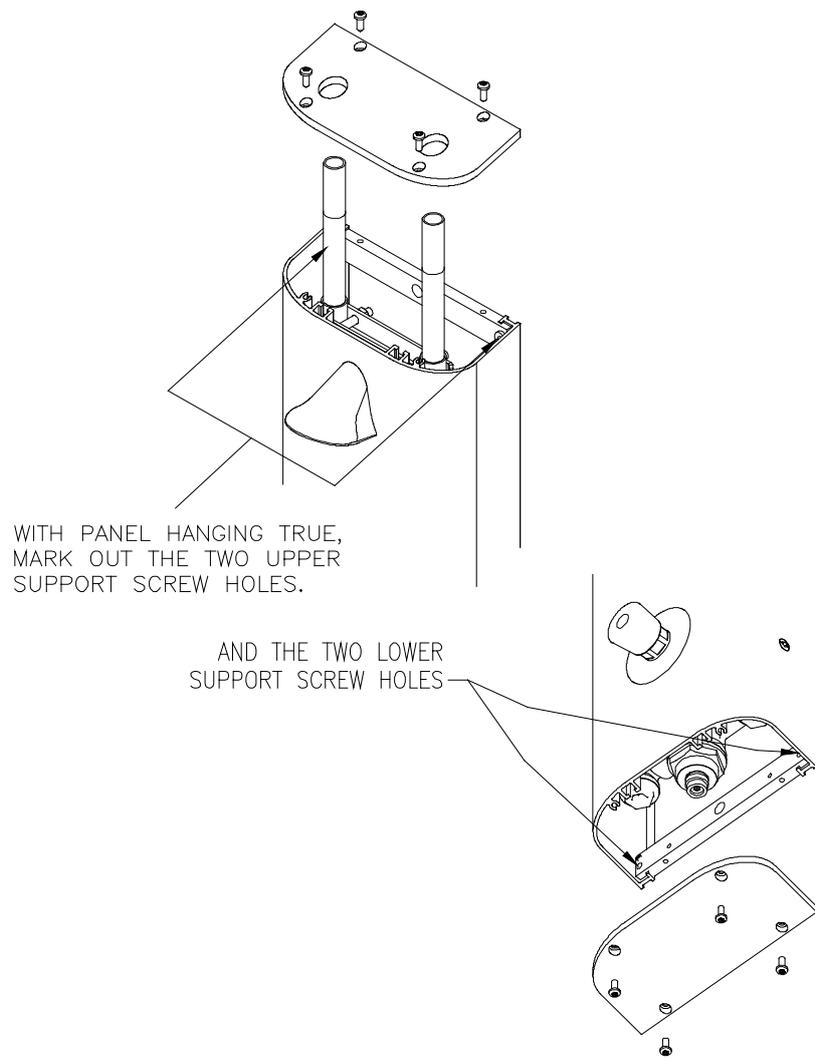


Figure 3.

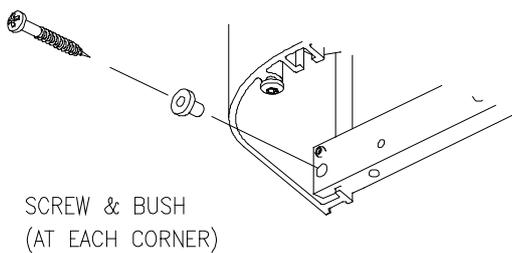


Figure 4.

5) Drill Support Holes

Carefully remove the pre-plumbed Enclosure from the temporary support screw and, being careful not to scratch the casing 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.

6) Attach the Pre-Plumbed Enclosure to the Wall

Carefully re-hang the pre-plumbed Enclosure on the temporary screw. Put the four supplied screw bushes in the mounting holes of the casing and then attach the Enclosure firmly to the wall by the four supplied stainless-steel screws (Fig.4). A bead of silicon mastic can be used, if required, to cover any gaps behind the panel on uneven walls.

Do not Mastic the lower end cap to the wall.

7) Connect the Supply Pipes

Ensure that the top cover of the pre-plumbed Enclosure is replaced prior to connecting the supply pipes. Connect the HOT water supply to the LEFT-HAND inlet, and COLD water to the RIGHT-HAND inlet (Fig. 5.).

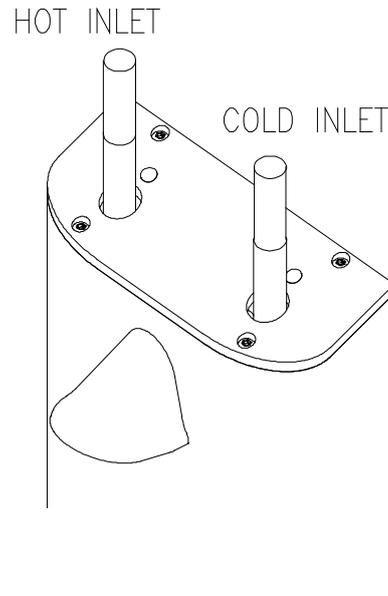


Figure 5.

DO NOT OPEN THE WATER SUPPLIES AT THIS STAGE AS THEY HAVE NOT BEEN FLUSHED OUT TO REMOVE DEBRIS IN THE PIPEWORK. SUCH DEBRIS CAN DAMAGE THE VALVE.

8) Flush the Pipework

Flush out the pipework in accordance with the Water Byelaws 2014 (Scotland) and BS 6700 England and Wales). The use of a Horne Flushing Kit is strongly recommended because this connects directly to the water inlets of the mixing valve. Access to the flushing points is gained from underneath the pre-plumbed Enclosure through the lower end cap. Isolate the hot and cold water supplies at the low-level servicing valves; remove the strainer cap and strainer basket and screw in the flushing adaptor. Place the end of the flushing hose in an appropriate drain or container and turn on the supply to flush as required. Note that the servicing valves must be opened to permit flushing. The servicing valves are located on the sides of the panel and are operated by 4mm hex key (supplied). After flushing, remove the flushing adaptor and replace the strainer cap. Repeat for both hot and cold supplies (see Fig. 6. below).

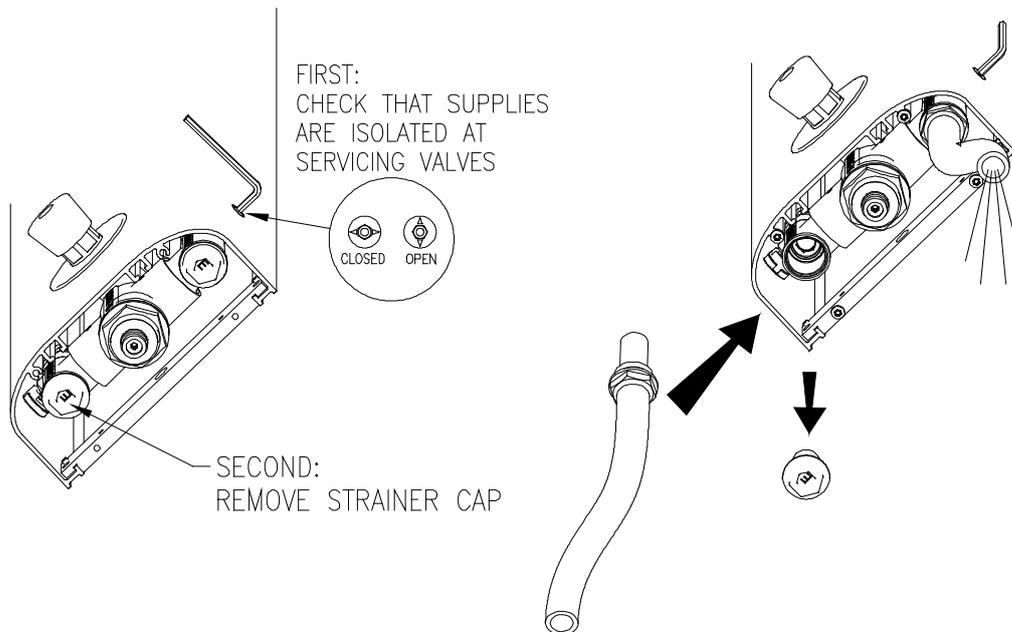


Figure 6.

NOTE THAT IF THERE IS A DANGER OF FREEZING THEN THE PIPES AND VALVE MUST BE DRAINED TO AVOID DAMAGE.

9) Test for Leaks in Pipework

Open the supplies and check for any leaks at the supply pipe joints. Open the servicing valves on the casing (Fig. 6). Water should not flow from the spray head as the push button timed flow control has not been pressed. Make good any leaks found. The valve is now ready for commissioning. Note that if any controls, enclosure or shower spray head 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' Variants.

TSV1 Panel Mounted Shower Valves are available in versions with flexible braided stainless-steel inlet hoses, with SOFT-PEX liner, rather than top entry isolating valves. These versions have Product References with the suffix B, e.g. T306B. The main difference, from an installation point of view, is that the water supplies may have to be connected before the pre-plumbed enclosure is attached to the wall.

Accordingly, Point 7 on the attached installation instructions (Connect the supply Pipes) should be performed *before* Point 6 (Attach the Pre-plumbed Enclosure to the wall) unless alternative access is available to the connections, e.g. via an access panel.

Note that the braided hoses are colour coded with BLUE for the Cold Water Supply and RED for the Hot Water Supply.

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

COMMISSIONING

ENSURE THAT THE PIPEWORK HAS BEEN FLUSHED OUT BEFORE COMMISSIONING THE T306A (SEE INSTALLATION INSTRUCTIONS).

Ensure that both hot and cold water supplies are open and at, or near their design temperatures and pressures, and that they are within the requirements of the valve as outlined on page 1. The NHS designation of the valve should match the intended application.

Run the shower by pressing the push button timed flow control. The shower will run for approx. 45 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.

The T306A is set at the factory to provide an outlet temperature of approx. 41°C, but this should be checked on site to ensure that the setting has not been adjusted and that it meets site requirements. To adjust the temperature setting, follow the instructions below and Figure 7:

- a. Remove the lower end cap from the shower Enclosure by removing the four screws.
- b. Using a 4mm (or 5/32") hex key, adjust the temperature of the mixed water. Turn the screw anticlockwise to increase the temperature, or clockwise to reduce it.
- c. After each adjustment, isolate the HOT supply at the servicing valve for a few seconds, restore it and check the set temperature.
- d. Operate the shower a few times to ensure the set temperature is correct.
- e. Record the commissioning details on the attached maintenance sheet (page 12 of this document) to permit the in-service performance of the valve to be assessed.

Finally, check the thermal shut-off facility of the valve by performing a thermal shut-off test. Shut off the cold supply at the servicing valve. The flow from the shower should immediately stop or reduce to a trickle, in which case the mixed water temperature should be less than 3°C above the set temperature. In either case there is no scalding risk. If the temperature rises more than 3°C above the set temperature, then it is likely that there is contamination in the mixing valve that is preventing it from shutting off the hot supply. Refer to the maintenance section of the attached booklet for the Home 15 or phone the factory for advice.

NB: Ensure that the Flow Control push button remains pressed during the thermal shut-off test.

The Timed Flow Control Cartridge supplied with all variants has an adjustable duration, and is factory set to 45 seconds (maximum duration). This is adjusted using the supplied Hex Key through the hole in the front of the push button - see drawing PA713 below.

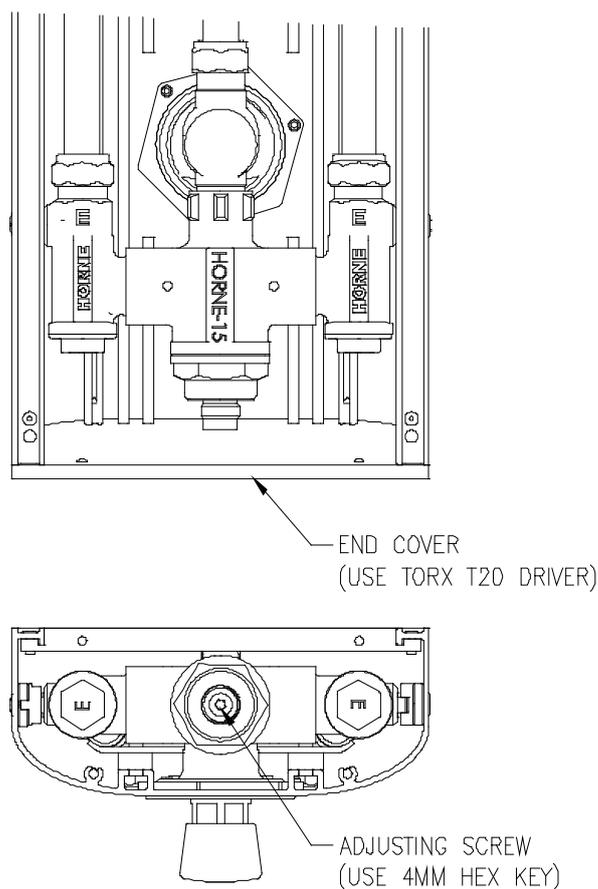


Figure 7.

MAINTENANCE

Integral Horne 15 Mixing Valve

Note that the T306A contains a Horne 15 Thermostatic Mixing Valve and is supplied with separate instructions for the mixing valve. Please refer to these instructions for details of maintenance procedures, which can be carried out without removing the panel from the wall.

Push-button Timed Flow Control

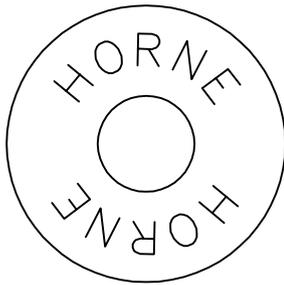
If the duration of the timed flow control begins to shorten significantly then this could be a sign that the cartridge requires cleaning. Over a period (or, if the water supplies have not been flushed through adequately, on a new installation), sediment and other particulate matter can get trapped in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

The Timed Flow Control (TFC) cartridge can be removed for cleaning or replacing as per drawing PA713 below.-

NB: For -LR models, which include a ligature resistant shroud around the timed flow control cartridge, the TFC cartridge can only be removed for cleaning or substitution by removing the panel Enclosure from the wall. To remove the panel from the wall, first isolate the water supply upstream of the panel then purge the water from the internal pipework by pressing in and holding the TFC button until the flow stops. Remove the top and bottom cover caps with a TORX T20 driver and unscrew the four wall fixings. Lift the Enclosure from its supporting screw to remove it, being sure to support the panel if there are still supply hoses connected behind. Loosen the grub screws and locknut holding the LR shroud in place, being careful to catch the shroud as it disengages to prevent scratching of the chromium plating. Now remove the TFC cartridge as per drawing PA713.

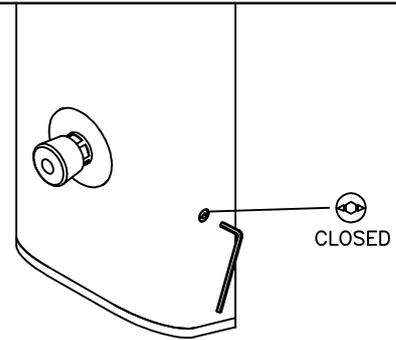
HORNE ENGINEERING LTD, RANKINE STREET, JOHNSTONE. PA5 8BD
 INSTRUCTION SHEET FOR ADJUSTING FLOW DURATION CUP
 TSV1 TIMED FLOW CONTROL UNITS BUILT AFTER APRIL 2010

1



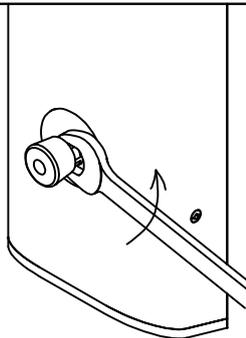
THIS INSTRUCTION SHEET IS ONLY APPLICABLE TO TSV1 PRODUCTS BUILT AFTER APRIL 2010. THESE CAN BE IDENTIFIED BY THE PUSHBUTTON BEING MARKED WITH "HORNE" AS SHOWN ABOVE. IF THE PUSHBUTTON DOES NOT HAVE THIS MARKING THEN THESE INSTRUCTIONS DO NOT APPLY.

2



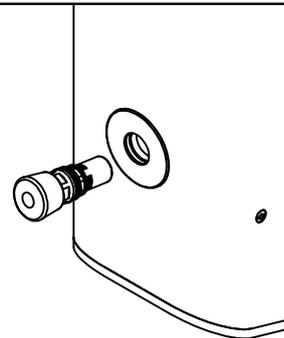
USE A HEX KEY TO ISOLATE THE HOT AND COLD WATER SUPPLIES AT THE LOW LEVEL SERVICING VALVES. THE INDICATOR ARROWS ON THE SERVICING VALVES WILL POINT TO THE FRONT AND THE BACK OF THE PANEL WHEN THE SUPPLIES ARE ISOLATED.

3



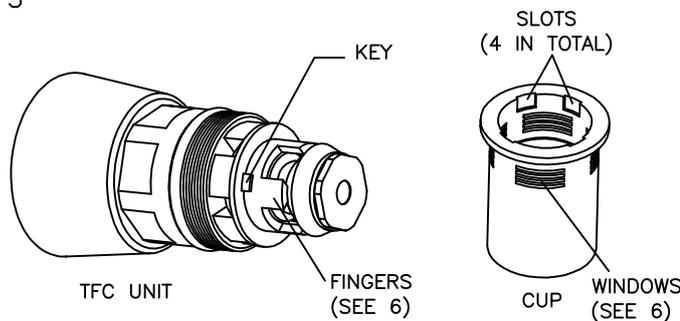
PRESS THE PUSHBUTTON TO RELEASE ANY TRAPPED PRESSURE. USING A SLIM JAW 24mm SPANNER ON THE HEX UNDER THE PUSHBUTTON, UNSCREW THE TIMED FLOW CONTROL CARTRIDGE.

4



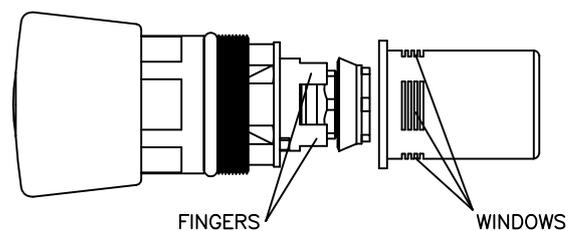
REMOVE THE TIMED FLOW CONTROL CARTRIDGE. BE CAREFUL NOT TO DROP THIS PRECISION PIECE OF EQUIPMENT. DO NOT PUT IT DOWN ANYWHERE WHERE IT COULD BECOME CONTAMINATED WITH DIRT OR DUST, NOR WHERE IT COULD BE STOOD ON.

5



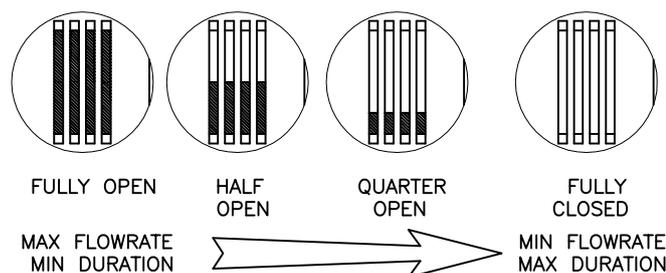
THE TFC UNIT HAS A KEY WHICH FITS INTO ONE OF 4 SLOTS IN THE CUP. THERE ARE THEREFORE 4 ORIENTATIONS OF THE TFC IN THE CUP. EACH OF THESE GENERATES A DIFFERENT FLOWRATE AND FLOW DURATION.

6



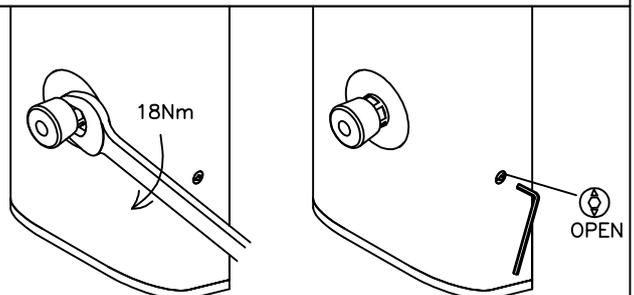
THE TFC UNIT HAS FINGERS WHICH BLANK OFF "WINDOWS" IN THE CUP WHEN ASSEMBLED. THE 4 ORIENTATIONS CORRESPOND TO 4 DIFFERENT DEGREES OF BLANKING. SECTION 7 SHOWS CLOSE-UP VIEWS OF THE WINDOWS AND EXPLAINS THE SIGNIFICANCE OF EACH ORIENTATION

7



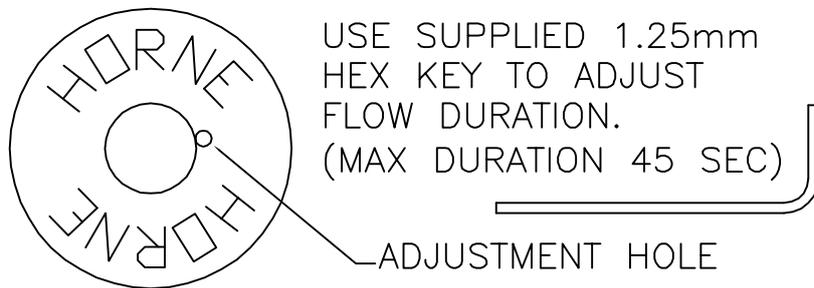
THE TFC UNIT HAS FINGERS WHICH COVER THE "WINDOWS" IN THE SIDE WALL OF THE CUP. SELECT THE MOST APPROPRIATE COMBINATION AS ABOVE, AND PUSH THE CUP ONTO THE CARTRIDGE.
 NOTE: THE PRODUCT IS SHIPPED IN THE FULLY OPEN CONDITION.

8



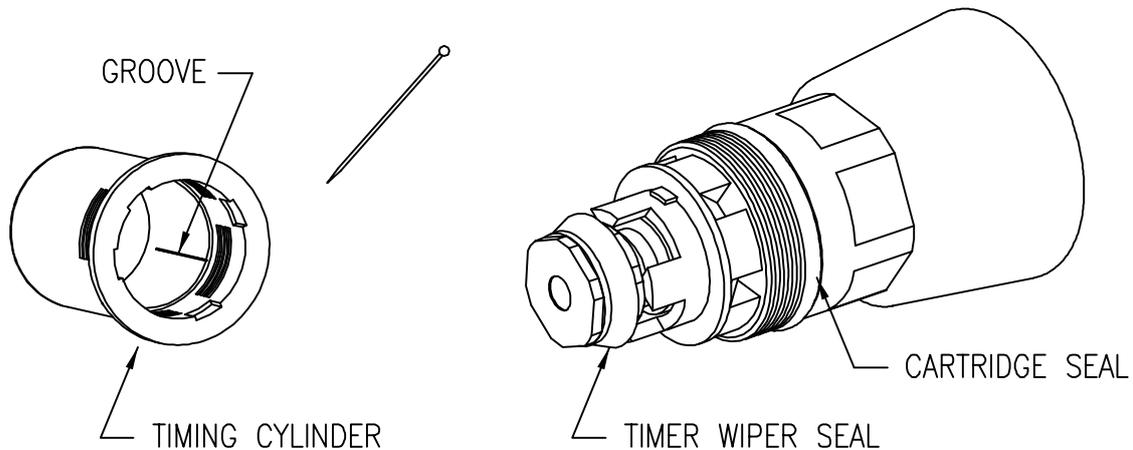
PUT THE CARTRIDGE BACK INTO THE SHOWER PANEL. TIGHTEN DOWN TO 18Nm. OPEN THE HOT AND COLD SUPPLIES AT THE SERVICING VALVES. THE INDICATOR ARROWS ON THE SERVICING VALVES WILL POINT UP AND DOWN WHEN THE SUPPLIES ARE OPEN. PUSH THE BUTTON TO PURGE THE AIR AND THEN VERIFY THE PERFORMANCE OF THE CARTRIDGE.

ADJUSTING FLOW DURATION THROUGH PISTON TRAVEL



TURN CLOCKWISE TO REDUCE DURATION,
ANTI-CLOCKWISE TO INCREASE DURATION.
(ADJUSTS THE MAXIMUM PISTON STROKE).

CLEANING THE TIMED FLOW-CONTROL CARTRIDGE



IF THE TFC CARTRIDGE BECOMES JAMMED (WON'T MOVE OUT TO CLOSED POSITION), REMOVE THE CARTRIDGE IN ACCORDANCE WITH STEPS 2-4, THEN PULL THE TIMING CYLINDER FROM THE CARTRIDGE ASSEMBLY. CLEAN OUT THE GROOVE INSIDE THE TIMING CYLINDER BY GENTLY RUNNING THE SHARP END OF A PIN UP AND DOWN THE GROOVE. A SMALL AMOUNT OF DEBRIS SHOULD BE DISLODGED BY THIS ACTION. THE TIMING CYLINDER MAY BE RINSED UNDER CLEAN RUNNING WATER - ABRASIVES SHOULD NOT BE USED.

ALL SEALS SHOULD BE FREE FROM DEBRIS AND DAMAGE. THEY MAY BE RINSED UNDER CLEAN RUNNING WATER. THE WIPER SEAL IS NOT USER REPLACEABLE - A NEW TFC SHOULD BE OBTAINED IF ANY DAMAGE IS APPARENT.

RE-ASSEMBLE AND INSTALL ACCORDING TO STEP 8.

TO REMOVE FLOW REGULATOR

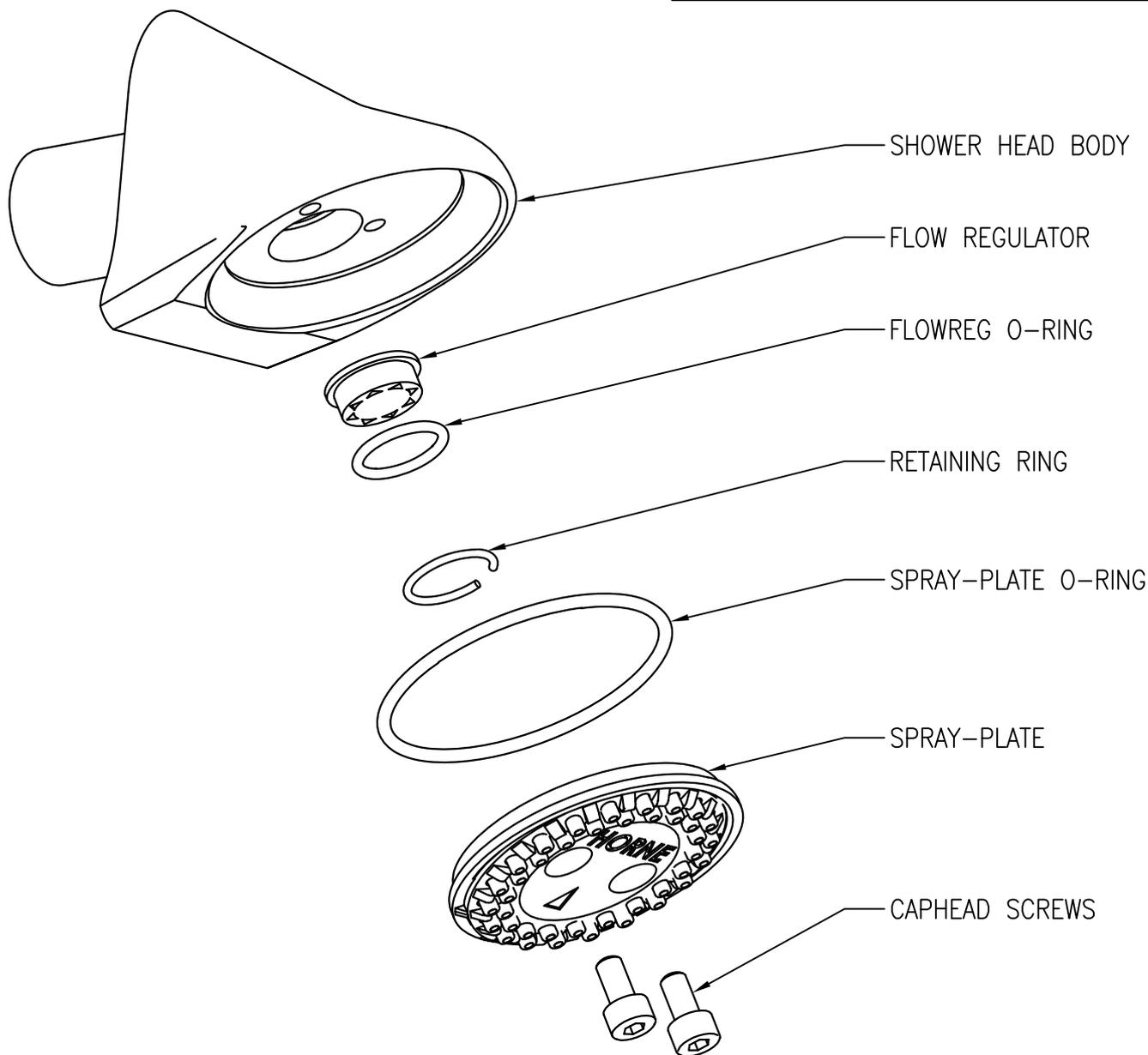
- 1> REMOVE THE 2 CAPHEAD SCREWS (USING 3MM HEX KEY)
- 2> PRISE SPRAYPLATE OUT WITH A BLADE OR SIMILAR
- 3> REMOVE THE RETAINING RING
- 4> REMOVE FLOW REGULATOR WITH ITS O-RING

STEPS <3> AND <4> CAN BE DONE BY TURNING ON THE WATER SUPPLY AND CATCHING THE PARTS IN A BUCKET

TO RE-FIT FLOW REGULATOR

- 1> INSERT FLOWREG INTO HOLE, FLANGED SIDE UP (FACING THE WATER SUPPLY)
- 2> PUSH O-RING INTO GAP AROUND FLOWREG
- 3> INSERT RETAINING RING
- 4> FIT THE LARGE O-RING ONTO THE SPRAYPLATE AND FIT THE SPRAYPLATE
- 5> RE-FIT THE CAPHEAD SCREWS

NOTE THAT THE SPRAY PLATE CAN BE FITTED IN 2 DIFFERENT ORIENTATIONS TO ALLOW GREATER OR LESSER 'THROW' OF THE WATER.



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MATERIAL : MATERIAL SPECIFICATION		HORNE ENGINEERING LTD. JOHNSTONE RENFREWSHIRE	
PART : REMOVAL / REPLACEMENT OF FLOW REGULATOR (VANDAL RESISTANT HEAD)	PRODUCT : HORNE SHOWER PANELS	SCALE	DO NOT SCALE
		DRAWN	MJ (18/11/2013)
		CHECKED	
		ISSUE	2
		DR'G. No. 10393	

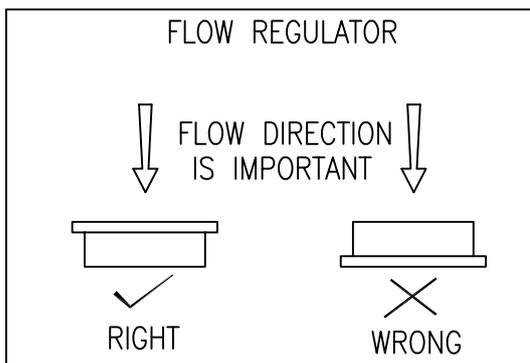
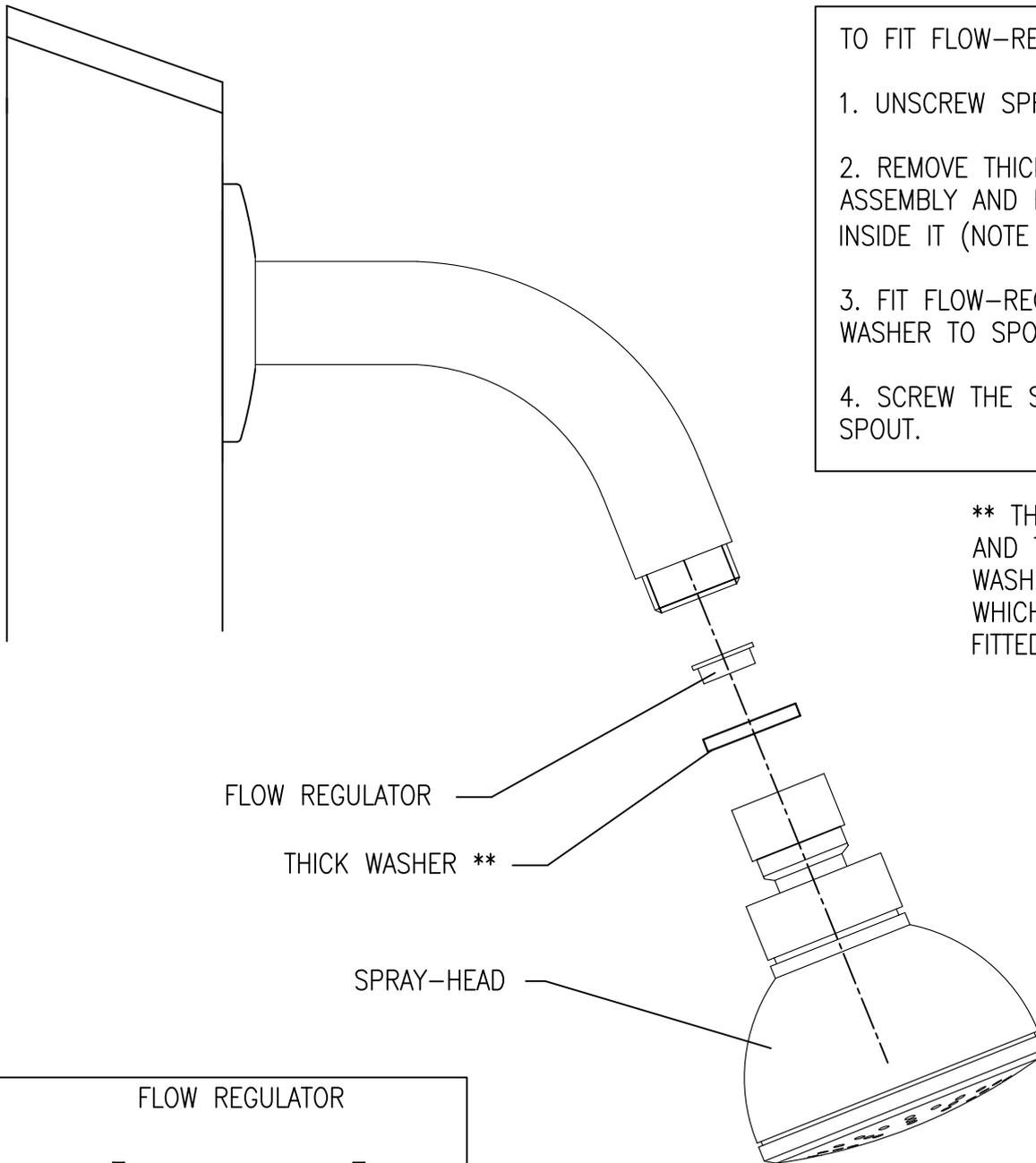
TO REMOVE FLOW-REGULATOR

1. UNSCREW SPRAY-HEAD FROM ANGLED TUBE
2. REMOVE FLOW REGULATOR AND WASHER
3. REPLACE WASHER
4. REFIT SPRAY-HEAD

TO FIT FLOW-REGULATOR

1. UNSCREW SPRAY-HEAD
2. REMOVE THICK WASHER FROM ASSEMBLY AND FIT FLOW-REGULATOR INSIDE IT (NOTE FLOW DIRECTION)
3. FIT FLOW-REGULATOR AND THICK WASHER TO SPOUT
4. SCREW THE SPRAY-HEAD TO THE SPOUT.

** THE EXACT NUMBER AND THICKNESS OF WASHERS WILL DEPEND ON WHICH SWIVEL-HEAD IS FITTED.



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MATERIAL : N/A

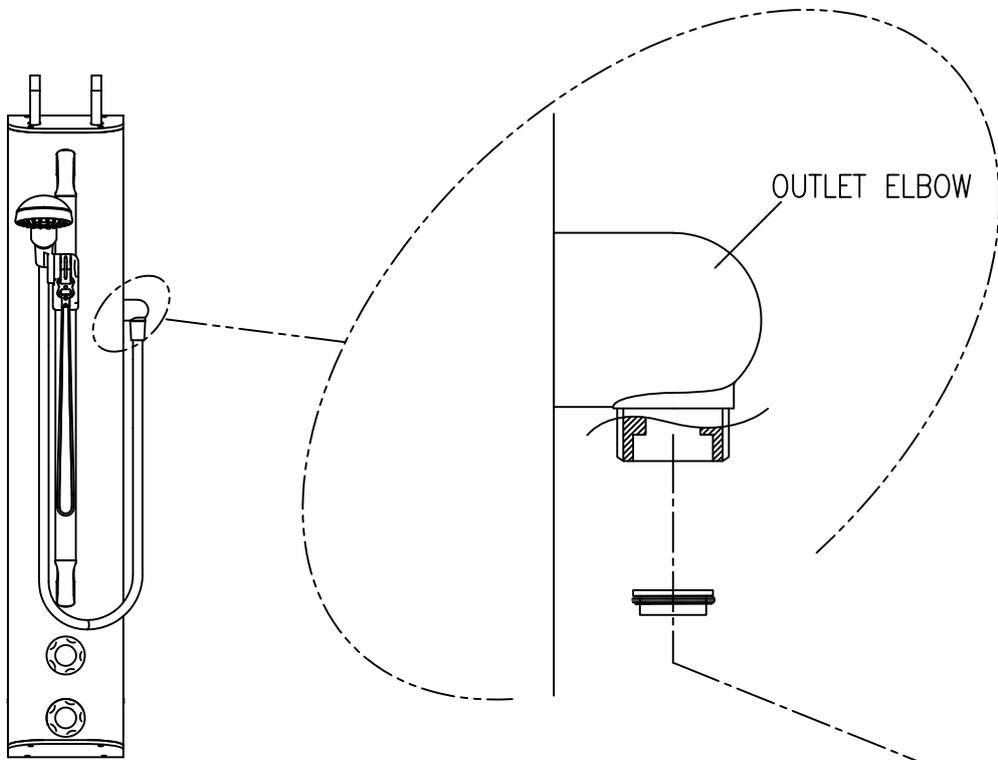
HORNE ENGINEERING LTD.
JOHNSTONE
RENFREWSHIRE

PART :
REMOVAL/REPLACEMENT OF
FLOW REGULATOR

PRODUCT :
TSV1-106A/AB

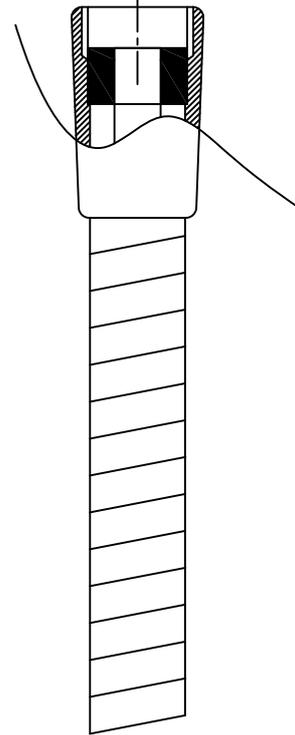
SCALE	DO NOT SCALE
DRAWN	MJ (1/12/2020)
CHECKED	
ISSUE	5

DR'G. No. 9301B



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



RIGHT



WRONG

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MATERIAL : N/A

HORNE ENGINEERING LTD.
JOHNSTONE
RENFREWSHIRE

PART :
FLOW REGULATOR
REMOVAL/REPLACEMENT
INSTRUCTIONS

PRODUCT :
HORNE SHOWERS
ALL HANDSET MODELS

SCALE	DO NOT SCALE
DRAWN	GDP 7/12/05
CHECKED	
ISSUE	3

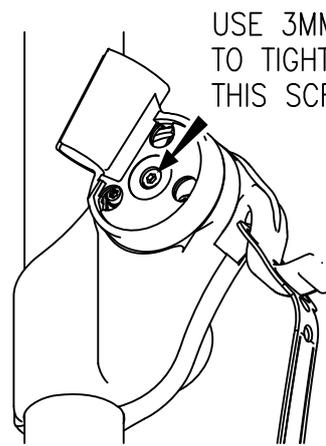
DR'G. No. 9302B

INSTRUCTIONS SPECIFIC TO SHOWER UNITS WITH RISER RAIL

TO ADJUST STIFFNESS OF ROTATING HANDSET HOLDER...

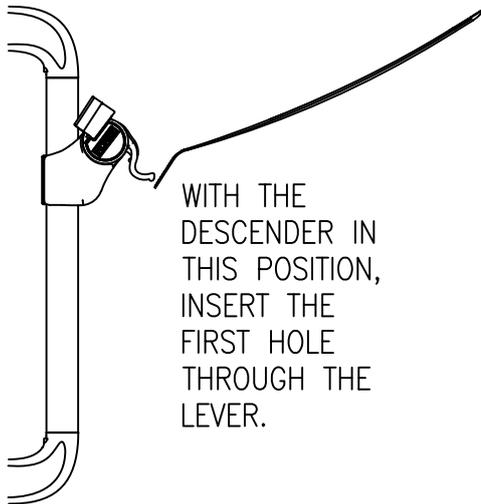


PRIZE DECAL COVER OFF HERE

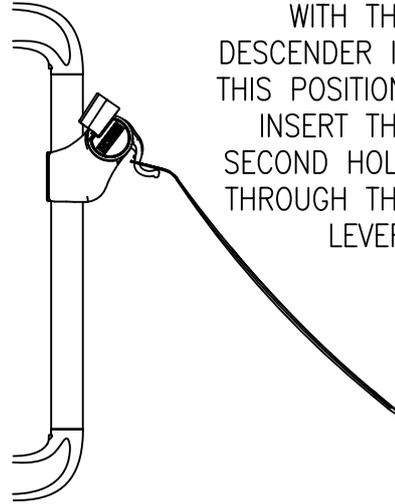


USE 3MM HEX KEY TO TIGHTEN OR LOOSEN THIS SCREW.

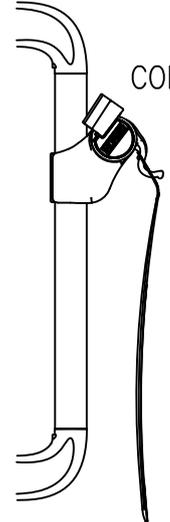
TO FIT THE DESCENDER (FOR ACCESSIBILITY)



WITH THE DESCENDER IN THIS POSITION, INSERT THE FIRST HOLE THROUGH THE LEVER.

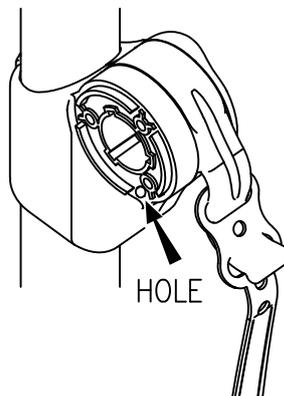


WITH THE DESCENDER IN THIS POSITION, INSERT THE SECOND HOLE THROUGH THE LEVER.



COMPLETE

TO REMOVE HANDSET HOLDER FROM THE RAIL, FIRST REMOVE DECAL COVER (SEE ABOVE), THEN USE TORX T15 DRIVER TO REMOVE THE 3 SCREWS AND THE ROTATING STIRRUP. REMOVE SCREW-COVER* AND SCREW FROM REVERSE OF HANDSET HOLDER, THEN INSERT A 50MM LONG X 3MM DIAMETER ROD (SCREWDRIVER) INTO THE HOLE AS SHOWN. HANDSET HOLDER WILL THEN SPLIT APART AND CAN BE REMOVED FROM THE RAIL.



HOLE

MAXIMUM LOADINGS FOR THE SHOWER RAIL (WHEN USED AS A GRAB-RAIL):-

LENGTH BETWEEN MOUNTING CENTRES	MAX. LOAD
0.8 M	120Kg
0.675 M	150Kg
0.39M	200Kg
0.29M	200Kg

* DRILL A SMALL HOLE THOUGH SCREW-COVER TO REMOVE IT.

HORNE ENGINEERING LTD.
JOHNSTONE
RENFREWSHIRE

DR'G. No. 11399

IN-SERVICE TESTING RECORD					
Establishment:					
Type of Valve: HORNE 15 INTEGRATED WITHIN SHOWER PANEL			Date Installed:		Installed by:
Location of Valve:					
COMMISSIONING Details					Note: Fill in ALL information during commissioning.
Hot Water Supply:	HW Temp.	C	HW Pressure	Bar	Temp:
Cold Water Supply:	CW Temp.	C	CW Pressure	Bar	Instrumentation: Pressure:
Mixed Temp. at max draw-off:	Mixed Temp.	C	Flowrate at max draw-off:	L/min.	
Mixed Temp. at low draw-off:	Mixed Temp.	C	Flowrate at low draw-off:	L/min.	
Instrumentation Used:	Temp:		Press:	Flow:	
Cold Water Isolation Test	Max. Mixed Water Temp. during CW Isolation test: C Mixed Water Temp. on restoration of CW Supply: C				
Note: MWT should return within 2 degrees of set temp. and be no greater than 43C after this test.					
Comments:					
Recommended Date of Next In-Service Test:					

In-Service Testing Record					
Establishment:		Location of Valve:			
Date:		Type of Valve: HORNE 15 INTEGRATED WITHIN SHOWER PANEL			
Hot Water Supply:	HW Temp.	C	HW Pressure	Bar	Temp:
Cold Water Supply:	CW Temp.	C	CW Pressure	Bar	Instrumentation: Pressure:
Mixed Temp. at max draw-off:	Mixed Temp.	C	Flowrate at max. draw-off:	L/min.	
Mixed Temp. at low draw-off:	Mixed Temp.	C	Flowrate at low draw-off:	L/min.	
Instrumentation Used:	Temp:		Press:	Flow:	
Cold Water Isolation Test	Max. Mixed Water Temp. during CW Isolation test: C Mixed Water Temp. on restoration of CW Supply: C				
Note: MWT should return within 2 degrees of set temp. and be no greater than 43C after this test.					
Comments:					
Recommended Date of Next In-Service Test:					

In-Service Testing Record					
Establishment:		Location of Valve:			
Date:		Type of Valve: HORNE 15 INTEGRATED WITHIN SHOWER PANEL			
Hot Water Supply :	HW Temp	C	HW Pressure	Bar	Instrumentation: Temp: Pressure:
Cold Water Supply:	CW Temp	C	CW Pressure	Bar	
Mixed Temp. at max. draw-off:	Mixed Temp.	C	Flowrate at max. draw-off:	L/min.	
Mixed Temp. at low draw-off:	Mixed Temp.	C	Flowrate at low draw-off:	L/min.	
Instrumentation Used:	Temp:		Press:		Flow:
Cold Water Isolation Test	Max. Mixed Water Temp. during CW Isolation test: C Mixed Water Temp. on restoration of CW Supply: C Note: MWT should return within 2 degrees of set temp. and be no greater than 43C after this test.				
Comments:					
Recommended Date of Next In-Service Test:					

In-Service Testing Record					
Establishment:		Location of Valve:			
Date:		Type of Valve: HORNE 15 INTEGRATED WITHIN SHOWER PANEL			
Hot Water Supply :	HW Temp	C	HW Pressure	Bar	Instrumentation: Temp: Pressure:
Cold Water Supply:	CW Temp	C	CW Pressure	Bar	
Mixed Temp. at max. draw-off:	Mixed Temp.	C	Flowrate at max. draw-off:	L/min.	
Mixed Temp. at low draw-off:	Mixed Temp.	C	Flowrate at low draw-off:	L/min.	
Instrumentation Used:	Temp:		Press:		Flow:
Cold Water Isolation Test	Max. Mixed Water Temp. during CW Isolation test: C Mixed Water Temp. on restoration of CW Supply: C Note: MWT should return within 2 degrees of set temp. and be no greater than 43C after this test.				
Comments:					
Recommended Date of Next In-Service Test:					

(Note: photocopy this page)

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