

## EXPOSED THERMOSTATIC SHOWER MIXER PARTS CHECK LIST

U.3552L • U.3556X • U.5550L • U.5552X

Congratulations on the purchase of your Perrin & Rowe Thermostatic Shower.  
Correctly installed and with sensible care, it will give many years of trouble free service.

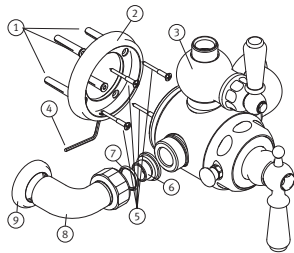
### Before you start...please read this leaflet.

We recommend employing the services of a registered plumber.

#### PARTS CHECK LIST

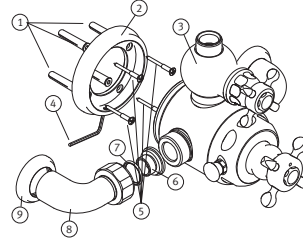
Please check carefully that the contents of your Perrin & Rowe Shower Mixer is complete. Please check before you install the product that there is no damage to the contents as **we cannot accept any responsibility after installation.**

#### EXPOSED THERMOSTATIC SHOWER MIXER - U.5550L & U.5751L



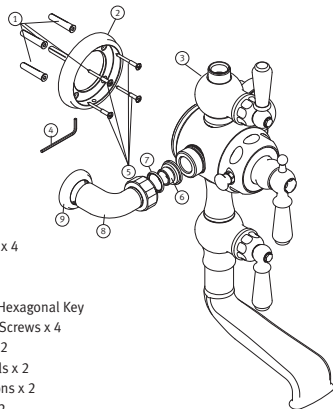
- |                          |                    |
|--------------------------|--------------------|
| 1 Rawl Plugs x 4         | 6 Strainers x 2    |
| 2 Back Plate             | 7 O'Ring Seals x 2 |
| 3 Mixer Body             | 8 Elbow Unions x 2 |
| 4 2.5mm AF Hexagonal Key | 9 Rosettes x 2     |
| 5 Back Plate Screws x 4  |                    |

#### EXPOSED THERMOSTATIC SHOWER MIXER - U.5552X & U.5752X



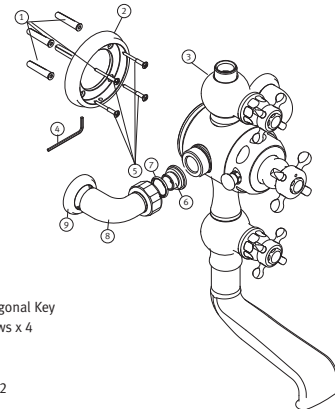
- |                          |                    |
|--------------------------|--------------------|
| 1 Rawl Plugs x 4         | 6 Strainers x 2    |
| 2 Back Plate             | 7 O'Ring Seals x 2 |
| 3 Mixer Body             | 8 Elbow Unions x 2 |
| 4 2.5mm AF Hexagonal Key | 9 Rosettes x 2     |
| 5 Back Plate Screws x 4  |                    |

#### WALL MOUNTED EXPOSED THERMOSTATIC SHOWER MIXER WITH OUTLET TO BATH - U.3552L



- |                          |
|--------------------------|
| 1 Rawl Plugs x 4         |
| 2 Back Plate             |
| 3 Mixer Body             |
| 4 2.5mm AF Hexagonal Key |
| 5 Back Plate Screws x 4  |
| 6 Strainers x 2          |
| 7 O'Ring Seals x 2       |
| 8 Elbow Unions x 2       |
| 9 Rosettes x 2           |

#### WALL MOUNTED EXPOSED THERMOSTATIC SHOWER MIXER WITH OUTLET TO BATH - U.3556



- |                          |
|--------------------------|
| 1 Rawl Plugs x 4         |
| 2 Back Plate             |
| 3 Mixer Body             |
| 4 2.5mm AF Hexagonal Key |
| 5 Back Plate Screws x 4  |
| 6 Strainers x 2          |
| 7 O'Ring Seals x 2       |
| 8 Elbow Unions x 2       |
| 9 Rosettes x 2           |

## EXPOSED THERMOSTATIC SHOWER MIXER INSTALLATION

U.3552L • U.3556X • U.5550L • U.5552X

### CHECK LIST

! Temperature of the hot water supply does not exceed 82°C (180°F)!

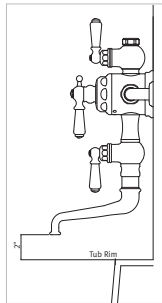
! Recommended minimum water supply pressure - 0.2 bar (2.9psi) !

! Recommended maximum water supply pressure - 10 bar (145psi) !

! Ideal performance obtained with equal hot & cold pressures !

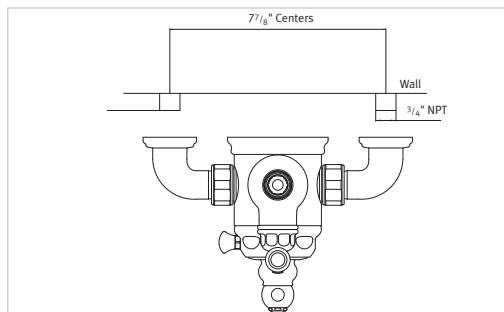
### PREPARATION

- Flush the plumbing system before installing the shower. This is to remove plumbing residues. This is especially important where extensive plumbing work has been carried out.
- The Hot supply should be on the left when viewed from the front of the fitting.
- We recommend hot and cold supplies should have conveniently placed isolating valves to accommodate any servicing requirements.
- If the bottom outlet is being utilized for a hand shower, rain bar, or body sprays and the showerhead on the top outlet is being used at the same time, it is possible that there may be a temperature variation between the outlets. If you need to run two functions at once, the system should be designed using only one outlet.
- Please ensure that the installation complies with the local plumbing codes.
- When fitting U3556, U3552 or U3552LS they should be positioned to allow an air gap of 2" above the tub rim (see diagram). Check compliance with local plumbing codes.



### INSTALLATION

- 1 Fit two 3/4" NPT male fittings into wall at 7 7/8" centers.



- 2 Fit and seal, the correct length for your installation, a 3/4" NPT male nipple (not supplied) into the female fitting so that no more than 5/8" of thread is protruding from the wall surface.
- 3 Apply thread sealing material to shank and with rosette in place, screw union onto shank. Turn union to required position.
- 4 Flush the plumbing system to remove plumbing residues prior to fitting shower.
- 5 Temporarily fit the shower body between the two unions and adjust the position if necessary.
- 6 With the shower body still in position, mark the position of the backplate on the wall.
- 7 Remove the shower body and using the backplate as a template, with the grubscrew facing down, mark the positions of the fixing holes.
- 8 Secure backplate to the wall using plugs and screws provided.
- 9 Place shower body into backplate and tighten grubscrew sufficiently to hold body into position. Ensure that the 'O' ring seals and filter meshes are in position between the surfaces of the wall union and the shower inlet union.
- 10 Fully tighten union coupling nut onto shower inlet union by hand only. If you need to use a wrench, protect nuts with a cloth or tape.
- 11 Fully tighten grubscrew in backplate.
- 12 Slide rosette up to finished wall surface.

### BEFORE USE

- Carefully check the installation for leaks.
- If further building work is to be carried out in the vicinity, cover the thermostatic shower mixer with a plastic bag to avoid damaging the finish.

### CARE & MAINTENANCE

Wipe down after use to avoid water spotting and mineral build up.

Occasional cleaning with warm soapy water, followed by a polish with a soft cloth is all that is required to keep the plated finish in good condition.

**Do not use proprietary abrasive liquids, powders, or pads to clean the shower. Do not use any products with ammonia bleach or limescale remover. You will damage the plated finish and void your guarantee.**

## EXPOSED THERMOSTATIC SHOWER MIXER OPERATION & TECHNICAL DATA

U.3552L • U.3556X • U.5550L • U.5552X

### OPERATION

To operate the shower, rotate the flow control lever/crosshead clockwise a quarter turn. See figure A. The thermostatic cartridge is pre-set by the manufacturer to give a shower temperature of 38°C (100°F) when the lever is in the vertical position/or the 'dot' on the Crosshead boss is at the top. To achieve a colder shower rotate the lever/crosshead clockwise. See Figure A. To achieve a hotter shower, pull out the override knob and rotate the lever/crosshead anti-clockwise up to a maximum of 44°C (111°F). See figure B. It is recommended that the temperature control be returned to its pre set position when finished.

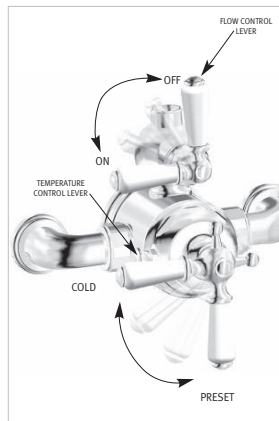


Figure A.  
Operating Lever Controls

### Anti-Scald

The thermostatic cartridge will automatically shut down completely on failure of either the hot or cold supply. This is especially important if your shower is to be used by children or the elderly. The thermostatic cartridge will reactivate when the supply failure has been corrected.

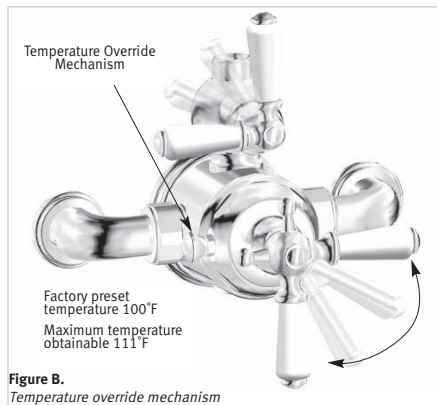
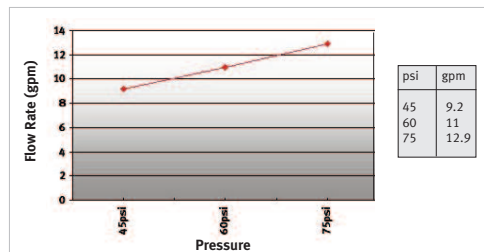


Figure B.  
Temperature override mechanism

### CARTRIDGE TEMPERATURE

If shower temperatures different to the pre-set are required, the cartridge can be adjusted using the procedure in Section 1 of the Troubleshooting Guide on the following pages.

### CARTRIDGE PERFORMANCE DATA FOR THERMOSTATIC UNIT ONLY



### TECHNICAL DATA

- Working pressures: 1 bar min (15psi), 10 bar max (145psi).
- Shut off supply failure: <1 second.

### PERFORMANCE

- Factory temperature setting: 38°C (100°F)
- Temperature range: 11°C - 44°C (52-111°F)
- Temperature hot supply: 65°C - 82°C (149-180°F)
- Temperature cold supply: 10°C - 22°C (50-72°F)
- Temperature Stability: ±1°C

### GUARANTEE AND LIABILITY

Your bathroom product has been manufactured to the high standard you would expect of any Perrin & Rowe product. But in the unlikely event that you should experience any defect in the materials or workmanship within a limited lifetime of purchase, we will replace the faulty part free of charge. This is provided the product has only been used for normal domestic purposes and that the installation and maintenance instructions have been observed.

The surface finish is guaranteed for a limited lifetime from the date of purchase provided our advice concerning care has been observed and no scouring agents have been used.

Scuffs and scratches caused by normal wear and tear, improper installation or accidental damage are excluded from the guarantee.

This does not affect your statutory rights. For full terms & condition please contact Rohl.

## EXPOSED THERMOSTATIC SHOWER MIXER TROUBLESHOOTING

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### **COLD SHOWER ONLY:**

Pull out override stop and turn lever/crosshead anti-clockwise.

#### **If water temperature increases:**

Pre-set temperature too low and needs adjusting. See Section 1.

#### **If water temperature decreases:**

Cold supply feeding into hot inlet.  
Cold supply should feed into RH side.

#### **If water temperature unchanged:**

- Hot supply temperature too high. Minimum 65°C. (149°F).
- Faulty cartridge. See section 2.

### **HOT SHOWER ONLY:**

Turn lever/crosshead clockwise.

#### **If water temperature decreases:**

Pre-set temperature too high and needs adjusting. See section 1.

#### **If water temperature increases:**

Hot supply feeding into cold inlet.  
Hot supply should feed into LH side.

#### **If water temperature unchanged:**

- Cold supply temperature too high. Maximum 22°C. (72°F).
- Faulty cartridge. See section 2.

### **FLOW PROBLEMS:**

#### **Flow Gradually decreases:**

- Debris collecting in pipework. See section 3.
- Debris collecting in filters. See section 3.

#### **Flow suddenly stops: (Built in Safety Feature)**

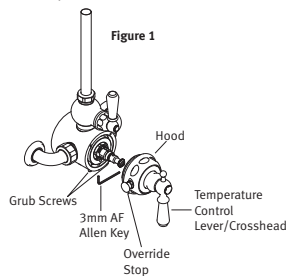
- Supply failure. See section 3.
- Debris blocking pipework. See section 3.
- Debris blocking filters. See section 3.

#### **No flow on start up:**

- Extremely low flow. See section 4.
- Supply failure. See section 3.
- Non-return valve in inlets not opening. See section 4.
- Shut off valve not opening. See section 5.

### **SECTION 1**

The thermostatic shower cartridge is pre-set to give a shower temperature of 38°C. (100°F). If shower temperatures different to the pre-set temperature are required the cartridge can be adjusted using the following procedure.



**Important: Altering the pre-set shower temperature will also alter the maximum and minimum operating temperatures.**

**Hood Removal. See figure 1.** Undo the three grub screws on the underside of the body using a 3mm AF Allen key. Do

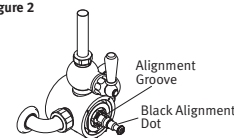
not completely remove the screws. Detach the hood from the body by gently pulling on the temperature control lever using an up and down rocking motion until the hood is free. Place to one side to prevent damage.

#### **Temperature adjustment. See figure 2.**

Temperature adjustments should be carried out while the shower is running.

The pre-set temperature setting position is indicated by a black dot or hole on the brass cartridge spindle, which should be in line with the groove in the top of the plastic cartridge body.

Figure 2



If it is not in the pre-set position rotate the cartridge spindle by hand until it is. Should the required Shower temperature be different to this setting it can be adjusted by, slowly rotating by hand clockwise to give a colder shower, slowly rotating by hand anticlockwise to give a hotter shower. **The cartridge has a limited rotation of less than half a turn in either direction, do not rotate the spindle more than this as it would cause permanent damage to the cartridge. Do not use a screwdriver in the screw on the end of the cartridge spindle to rotate the spindle.**

**Re-assembly** - The re-assembly of the hood is the reverse of the removal. Ensure that the temperature control lever/crosshead is in the vertical position and rotated against the override stop and remains in this position during re-assembly.

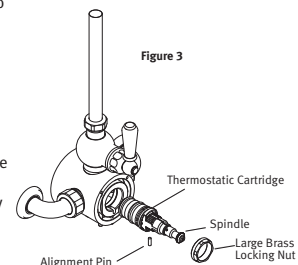
### **SECTION 2**

#### **Cartridge Replacement. See figure 3.**

Should it be apparent that the cartridge is at fault (ie) unable to adjust the temperature, it can be replaced by using the following procedure. **Before attempting to remove the cartridge ensure that both hot & Cold supplies are isolated and the flow control valve is in the off position.**

Remove the hood by following the procedure in section 1. Remove the spindle from the cartridge. Undo and remove the large brass locking nut from around the plastic cartridge body. Remove the alignment pin situated in a groove between the underside of the cartridge and the shower body. Pull the cartridge from the shower body, using a pair of grips or adjustable spanner on the two flat sides of the plastic cartridge body, with a side to side turning motion to release the three O'ring seals. A small amount of water that is retained in the shower body will fall out as the seals are released.

Before replacing the cartridge ensure that the bore of the shower body is free from any dirt and debris.



continued over ...

## EXPOSED THERMOSTATIC SHOWER MIXER TROUBLESHOOTING

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### Section 2 continued ../

Wet the O'rings and push the cartridge into the shower body by hand with the alignment pin groove to the bottom. There will be a slight resistance until the cartridge "snaps" into position. Ensure that the cartridge is aligned by installing the alignment pin in the groove. Lock into position using the large brass locking nut. Place the spindle onto the new valve, aligning the hole with the dot/black line, and with the groove on the plastic cartridge body.

If at any time during the replacement of the cartridge the spindle moves, return it to the pre-set position. On testing should the required shower temperature be different to this setting it can be adjusted by following the temperature adjustment procedure in section 1.

### SECTION 3

#### Supply fault / failure. See figure 4.

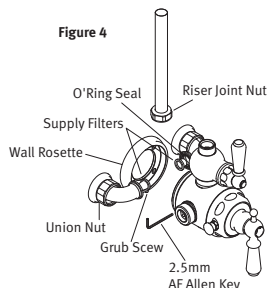
In order to determine and eliminate a supply fault or failure it will be necessary to remove the shower body from the installation. **BEFORE ATTEMPTING TO REMOVE THE SHOWER BODY ENSURE THAT BOTH HOT AND COLD SUPPLIES ARE ISOLATED.**

Take extreme care when working not to damage any of the finished parts by protecting surfaces of tools with masking/insulating tape.

Undo the supply union nuts and slide them away as far as possible. Undo the riser joint, slide the nut away from the joint and temporarily secure out of the way with masking/insulating tape. As soon as the seal is broken on the riser joint water will flow from the joint and the shower outlet connected to the riser. Undo, but do not remove, the grub screw in the backplate using a 2.5mm AF Allen Key.

Pull the shower body slowly forward, to release body from backplate, and slowly downwards, to release riser joint. Remove body completely from installation. Place to one side to prevent damage. The seal between the supply union and the shower body is made with an 'O' ring. They should remain in the groove in the supply unions. If they fall out ensure that they are kept to one side to be re used. The filters in the supply unions can now be removed and inspected for signs of debris and cleaned. Before replacing the filters flush out the pipework to ensure that any further debris is removed from the system and that there is an adequate supply.

The supplies can easily be flushed out at this stage by simply turning them on.



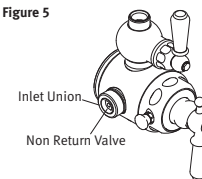
**Re-assembly** - This is the reverse of the removal procedure. Ensure that on both installations that the 'O' ring seals and filters remain in position in the supply unions and that the 'O' ring seals are clean and undamaged. As a precaution before re-assembly make sure non-return valves are operating freely by pushing on the centre with a finger. A small amount of water will fall out when the non-return valve opens.

### SECTION 4

#### Non Return Valves. See figure 5.

To examine the non return valves, it will be necessary to remove the shower body from the installation by following the procedure in section 3. **BEFORE ATTEMPTING TO REMOVE THE SHOWER BODY ENSURE THAT BOTH HOT AND COLD SUPPLIES ARE ISOLATED.**

Figure 5



The thermostatic shower is supplied with non-return valves in the inlet unions to prevent cross contamination of the supplies. During storage the non-return valve seals can become "stuck" and in conditions of low flow there is not enough water pressure to initially open them. They can easily be opened manually by pushing on the centre with a finger to free the seals.

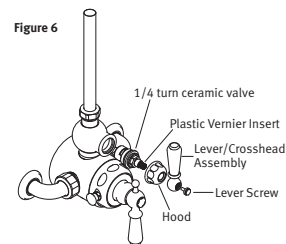
In conditions of extremely low flow the non-return valves can be removed to reduce restrictions by breaking them out using a flat bladed screwdriver and pointed nose pliers. Take care not to damage the sealing surface on the inlet unions. **This should only be carried out where both supplies come from a common source installed in accordance with the local plumbing codes.**

### SECTION 5

#### Shut off Valve not opening. See figure 6.

Before attempting to remove the shut off valve ensure that both hot and cold supplies are isolated.

Figure 6



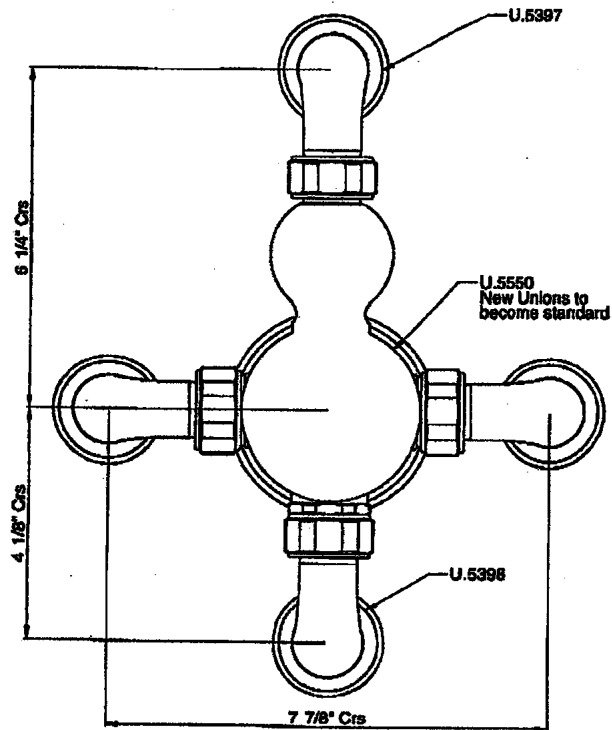
Take extreme care not to damage any of the finished parts by protecting surfaces of tools with masking/insulating tape.

Undo and remove lever screw. Pull lever/crosshead assembly from spline of 1/4 turn ceramic valve. Undo and remove hood. Using a 17mm spanner or socket, undo 1/4 turn ceramic valve. If the shower has been used, as soon as the seal on the valve is broken water will flow from around the valve and the shower outlet connected to the riser, until the riser is empty. Remove valve. The 1/4 turn ceramic valve is not serviceable and will need replacing if the ceramic discs do not open when the spline is turned. Ensure that plastic vernier insert is retained for use on replacement valve.

**Re-assembly** - The re-assembly is the reverse of the removal procedure.

## INSTALLATION INSTRUCTIONS

### CENTER TO CENTER HOT AND COLD AND TOP AND BOTTOM UNIONS



All connections are 3/4" NPT female,  
for a threaded stub protruding from wall