COMMISSIONING AND PERIODIC CHECKS

A log book should be kept for the recording of checks and results. The following procedure should be carried out after installation and every 6 months after to ensure that the valve is functioning correctly.

Check that:
1. The application of the thermostatic fitting matches the approved designation.
2. The supply pressures are within the recommended range for the application.
3. The supply temperatures are within the permitted range for the application and comply with the guidance for prevention of Legionella.
4. The mixed temperature is as required for the application.

Record:
5. Each hot and cold supply temperature. (Make a note of the measuring device used).
6. The mixed water temperature at the outlet device.

Isolate:
7. The cold supply to the mixing valve and record the mixed water temperature. The temperature should not exceed the value given in table 2 (following).

FREQUENCY OF REGULAR SERVICING

The purpose of servicing regularly is to monitor the performance of changes in system and fitting set up. This may highlight the need to adjust either the supply system or the fitting. The fitting should be checked and tested 6 to 8 weeks and again 12 to 16 weeks after commissioning. The results are to be compared against original commissioning settings.

If there is no significant change (i.e., less than 1°C) then a 6 monthly servicing cycle may be adopted.

If the temperature increases up to 2°C at the mixed water outlet, then servicing checks should be carried out more frequently. (e.g., every 4 months).

If the temperature increase exceeds 2°C, after the checks in 2 below have been carried out, the sequential thermostatic cartridge may have to be replaced (see page 5). After replacing, the mixed temperature must be rechecked.

The following procedure is recommended for all servicing:
1. Repeat the procedure of recording and checking supply temperatures. (The same type of measuring equipment should be used).
2. If the temperature has changed significantly from the previously recorded valves, the following should be checked:
   a. All in-line or integral valve filters are clear of obstruction.
   b. All in-line or integral check valves are clean and working properly to prevent backflow.
   c. Any isolating valves are fully open.
3. When satisfied with the mixed outlet temperatures re-record the temperatures.

Table 2
A guide to maximum temperature sets

<table>
<thead>
<tr>
<th>Application</th>
<th>Mixed water temperature</th>
<th>Permitted maximum temperature recorded during testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washbasin spray/</td>
<td>41°C</td>
<td>43°C</td>
</tr>
</tbody>
</table>

OPERATION

Figure 7 Showing the handle control positions. As the handle is rotated anti-clockwise from the off position the delivered water progresses from cold through warm to the preset maximum temperature of approximately 41°C.
**DESCRIPTION**

The fittings covered by this installation and maintenance instruction should be installed in accordance with the water regulations published in 1999*, therefore Armitage Shanks would strongly recommend that these fittings are installed by a professional installer.


- **A4131AA** CONTOUR 21 SEQUENTIAL LEVER OPERATED THERMOSTATIC MONOBLOCK MIXER TAP, FLEXIBLE TAILS, WITHOUT POP-UP
- **A4169AA** CONTOUR 21 SEQUENTIAL LEVER OPERATED THERMOSTATIC MONOBLOCK MIXER TAP, COPPER TAILS, WITHOUT POP-UP
- **A4132AA** CONTOUR 21 SEQUENTIAL LEVER OPERATED THERMOSTATIC MONOBLOCK MIXER TAP, FLEXIBLE TAILS, WITH POP-UP

**DESCRIPTION**

This manual covers the A4131AA, A4169AA and A4132AA. Contour 21 thermostatically controlled, lever operated, sequential mixing taps. They are designed to provide water from ambient cold up to a safe maximum temperature for hand washing.

These products are intended to be installed on single hole or two taphole washbasins with tap hole sizes of 30mm - 36mm.

They come complete with flexible inlet tails or alternatively rigid copper inlet tails, isolating valves with strainers, check valves and flow regulators.

These products are uniquely identifiable by the number “950413” stamped on the underside of the operating lever.

**INTRODUCTION**

The A4131AA and A4132AA thermostatic monoblock taps are manufactured to the highest standards and have approval to TMV3 which permits them to be installed in healthcare establishments such as hospitals, nursing homes and residential care homes. When installed in healthcare establishments the supply conditions detailed in Table 1 must be observed and the commissioning and servicing requirements detailed on page 6 must be followed. For other installations this is not a requirement.

**SUPPLY CONDITIONS**

The fitting is designed to be installed on normal UK low pressure storage tank fed systems, unvented high pressure systems or modulating instantaneous water heaters or modulating combination (comb) boilers. They are suitable for all pumped applications.

Hot and cold water supply pressures must be reasonably balanced and from a common source i.e. both from storage or both from a supply pipe. The mixer will function within specification on unequal pressures up to 5 : 1 but it is not recommended that cold be connected to the rising main and hot to the tank fed supply.

The fitting should be so installed as to permit the operation of the isolating valves and give access for servicing the strainer elements.

The minimum pressure for correct operation is 0.2 bar. For supply pressures less that 0.4 bar it may be necessary to remove the flow regulator elements. See figure 5.

Avoid using heat for soldering near the mixer inlets to prevent damage to internal components.

Table 2 shows the flow rate performance for the flow straightener and flow regulator outlets.

**FOR HEALTHCARE ESTABLISHMENTS**

In accordance with the NHS model engineering specifications DO8 this valve has approval for the following applications:-

- **High pressure** - HP
- **Low pressure** - LP
- **WE**

TMV3 approval number:- BC146/0705

For this type of application the following supply conditions must apply:

<table>
<thead>
<tr>
<th>Operating pressure range</th>
<th>High pressure</th>
<th>Low pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum static pressure - Bar</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Flow rate hot and cold - Bar</td>
<td>1 to 5</td>
<td>0.2 to 1</td>
</tr>
<tr>
<td>Hot supply temperature °C</td>
<td>52 to 65</td>
<td>52 to 65</td>
</tr>
<tr>
<td>Cold supply temperature °C</td>
<td>5 to 20</td>
<td>5 to 20</td>
</tr>
<tr>
<td>Temp' differential characteristic (TDC) °C</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**INSTALLATION**

**FIXATION**

1. Insert the fitting into the tap hole ensuring that the sealing washer is in the correct orientation as shown above
2. Fit the clamping assembly to the tail and tighten the three screws till the fitting is secure
3. Screw in the flexible inlet tails (short thread extension 1st).
4. Install the isolating valves to the flexible tails
5. Connect the isolating valves to the supplies.

**REPLACEMENT OF THE SEQUENTIAL CARTRIDGE**

The handle should be removed by prising out the screw cover and unscrewing the retaining screw.

**Figure 3a**

The working parts of this fitting are all contained within the sequential cartridge. After checking that supply conditions are within the specified parameters (see Table 1) if the fitting malfunctions or should the test results fail to fall within the specified limits simply replace the cartridge with a new one. The cartridge can be unscrewed using a 36mm a/f deep pattern socket.

The replacement cartridge should be tightened to a torque of 15Nm. (To re-seal the cartridge we recommend the use of Locite 222 applied to the thread of the cartridge.)

In case of extreme damage by water borne debris it may be necessary to exchange the cartridge seating.

**Figure 3**

**Setting the lever position**

With the water running, loosely assemble lever on to the sequential cartridge. Gradually turn the lever towards the off position until water stops then remove the lever and set in a suitable position for normal use when off (see fig 3a).

**Figure 4**

**ISOLATING VALVE AND STRAINER**

To ensure trouble free operation of the fitting, the strainer should be checked and cleaned every six months.

To access the strainer element simply close the isolating valve and unscrew the strainer cap. The strainer element should be washed with clean water and replaced.

**Figure 5**