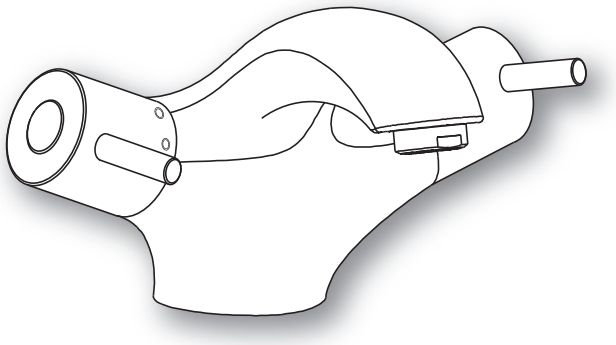
Acura Thermostatic Basin Tap

AC1002CP

Installation and Maintenance Instructions



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Introduction

Your Inta thermostatic basin tap must be installed in accordance with the Water Byelaws.

The Acura basin mixing tap contains an integral thermostatic cartridge to prevent scalding.

It is recommended that a service valve is installed in both the cold and hot water supply pipes to isolate the tap should servicing be required in the future.

All installations should be thoroughly flushed and cleaned to remove any debris that may affect the performance of the basin mixing tap.

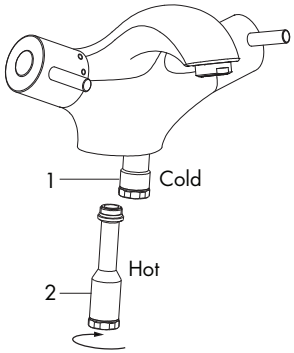
Installation

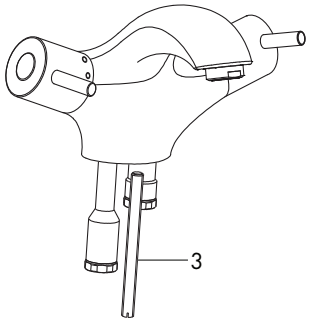
The Acura thermostatic basin tap is designed for installing on one hole basins.

Screw the shorter hose connector (1) into the cold inlet on the right side of the tap and tighten.

Screw the longer hose connector (2) into the hot inlet and tighten.

Screw the retaining screw (3) into the threaded hole in the base of the body taking care not to over tighten.





Installation

Connect the longer flexible hoses (4) into the shorter cold water hose connector (1) and tighten and the shorter hose (5) into longer hot water hose connector (2) noting which flexible is connected to the hot side of the tap.

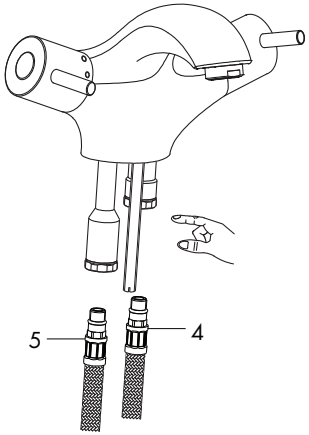
The cold supply must be connected to the right hand side and the hot to the left hand side of the mixer when viewed from the front.

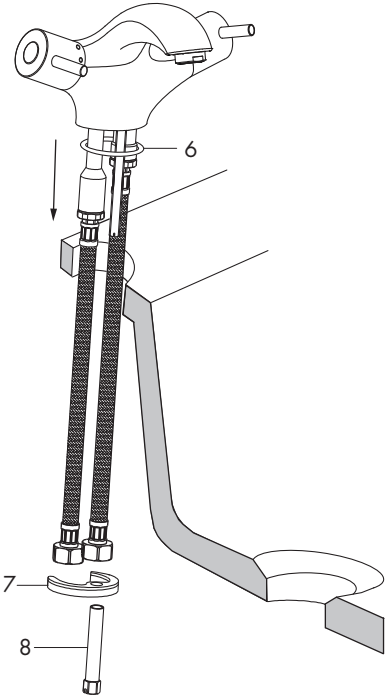
Ensure that the 'O' ring seal (6) is located in the base of the tap prior to fitting the mixer to the basin.

Once in place using the retaining plate (7) secure in position, taking care not to over tighten the retaining nut (8).

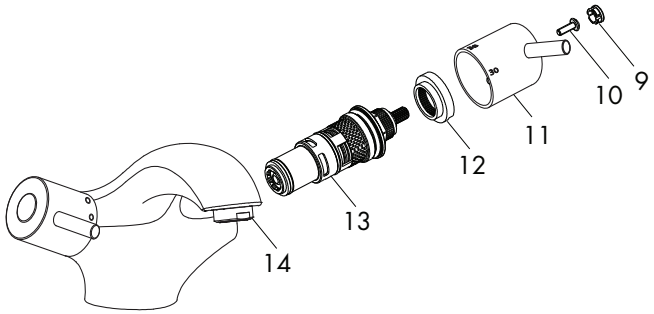
Connect the flexible hoses to the hot and cold supplies remembering which was connected to the hot inlet and ensure all joints are water tight.

For optimum mixing performance where the hot and cold pressures are not equal, regulating valves should be installed directly upstream of the tap so that the water supply pressures can be regulated and equalised.





Cartridge Replacement



Isolate both the hot and cold water supplies

Remove the cover (9) and unscrew the control knob retaining screw (10).

Remove the temperature control knob (11) and the temperature stop ring (12).

Using a suitable spanner unscrew the cartridge (13).

Replace with a new cartridge and assemble in the reverse order.

Aftercare

The nozzle (14) should be cleaned periodically to remove any build up of debris or deposits which may affect the performance of the tap.

Inta taps have a high quality finish and should be treated with care.

An occasional wipe with a mild washing-up liquid on a soft damp cloth followed by a thorough rinsing is all that is required.

Do not use an **abrasive** or **chemical household cleaner** as this may **cause damage**.

Acura TMV2 Thermostatic Basin Tap

Important

The following information is required for use when the Acura thermostatic basin tap is used in TMV2 Applications under the requirements of BS EN 1111: 1999 "Sanitary tapware. Thermostatic Mixing Valve (PN 10). General Technical Specification" and BS EN 1287: 1999 "Sanitary tapware. Low pressure thermostatic mixing valves. General technical specifications".

Supply Conditions

The supply conditions to the Thermostatic Mixing Valve must comply with the following;

Conditions	High Pressure BS EN 1111
Maximum Static Pressure	10 bar
Flow Pressure, Hot & Cold	0.5 to 5 bar
Hot Supply Temperature	55 to 65˚C
Cold Supply Temperature	≤ 25˚C
Temperature Stability	± 2˚C
Min Temp Differential (Mix to Hot) for fail-safe	10˚C
Max. Pressure Inlet Differential	5:1

Note: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as type 2 valves.

- The valves designation of use, **HP-W** tested against BS EN 1111.
- If the water supply is fed by gravity then the supply pressures should be verified to ensure the conditions of use are appropriate for the valve.

Introduction

The Inta range of thermostatic mixing valves have been specifically designed and manufactured to meet the requirements of BS EN 1111: 1999, BS EN 1287: 1999 and TMV2 Type Scheme. The valve has been independently tested and approved as a TYPE 2 valve under the Buildcert TMV2 scheme by the NSF-WRc Limited/Buildcert Limited.

Application

The thermostatic basin mixer has been independently tested by WRc and certified as meeting the requirements of the BS EN 1111:1999 and BS EN 1287:1999 under the TMV2 Scheme as being suitable for use on the following designations.

Wash hand Basin **HP-W**

Recommended Outlet Temperatures

The BuildCert TMV scheme recommends the following set maximum mixed water outlet temperature for use in all premises:

Application	Recommended Hot Water Temperature
Wash Hand Basin	41˚C

The mixed water temperature must never exceed 43˚C.

The maximum mixed water temperature can be 2 ˚C above the recommended maximum set outlet temperature.

Note: 43˚C is the maximum mixed water temperature from a shower mixer. The maximum temperature takes account of the allowable tolerances inherent in thermostatic shower mixers and temperature losses.

It is not a safe bathing Temperature for adults or children.

The British Burns Association recommends 37 to 37.5˚C as a comfortable bathing temperature for children. In premises covered by the Care Standard Act 2000, the maximum mixed water outlet temperature is 43˚C.

Installation

Important: - The following instructions must be read prior to the installation of the thermostatic basin tap. The installer of the thermostatic shower valve must comply with the requirements of the Water supply (Water Fittings) Regulations 1999 and also be aware of their responsibility and duty of care to ensure that all aspects of the installation comply with the regulations.

It has been brought to our attention that flushing water systems using certain chemicals may wholly or partially remove the lubricant from the internal workings of the valve, which may adversely affect its performance. We recommend that following flushing the system with chemicals; valves are checked for correct operation.

1 It is essential that before installing any thermostatic basin tap to ensure that the supply conditions of the system to which the valve is intended to be fitted are checked to confirm compliance with the parameters as quoted within the technical specification and conditions on which the approval is granted i.e. verify supply temperatures, supply pressures, risk assessment.

Installation

2 Consideration must be made for the possibility of multiple / simultaneous demands being made on the supply system whilst the thermostatic basin tap is in use, all practical precautions must be made to ensure that the valve is not affected. Failure to make provision within the pipe sizing etc. will affect the performance of the shower valve

3 The supply to which the thermostatic basin tap is to be installed must be thoroughly flushed and cleaned to remove any debris, which may have accumulated during the installation. Failure to remove any debris will affect the performance and the manufacturer's warranty of the product. In areas that are subject to aggressive water, provision must be made to treat the supplies prior to the supplies entering the shower valve.

4 This thermostatic mixer tap has been designed for basin mounting. It is essential that access to the tap is not be obstructed for commissioning, testing, or any future maintenance that may be required.

5 The hot and cold water supplies must be connected to the tap strictly in accordance with these instructions i.e. hot water supply to the hot port of the tap.

6 In a situation where one or both of the water supplies are excessive, it is recommended to fit a Pressure Reducing Valve to reduce the pressure(s) to within the limits as quoted previously.

7 Any thermostatic basin tap must be fitted with a back flow prevention device, such as check valves to prevent the cross contamination of supplies.

8 Isolation valves, in an accessible position, are required as close as is practicable to the water supply inlets of the thermostatic basin tap.

9 The fitting of strainers is recommended as close as is practicable to the water supply inlets of the thermostatic basin tap.

10 It is essential that the fail safe thermostatic basin tap should not be installed in situations where there is a possibility of the tap being deprived of water or where demands for water are greater than the actual stored supplies.

11 To ensure that the performance levels of the thermostatic basin tap are maintained (in the event of cold water failure), the temperature of the hot water supply at the point of entry to the thermostatic shower valve must be a minimum of 10°C above the commissioned mixed water discharge temperature.

12 The fail-safe thermostatic basin tap must not be subject to any extreme temperature variations either during the installation or under normal operating conditions.

Commissioning

Important: - The following instructions must be read and understood prior to commissioning the thermostatic basin tap. If under any circumstances there are aspects to the installation / system which do not comply with the specification laid down, the tap **MUST NOT** be put into operation until the system / installation complies with the specification. However if all these conditions are met, proceed to set the temperature as follows;

1 Ensure that the system is thoroughly cleaned and free from any debris prior to commissioning the thermostatic basin tap.

2 Commissioning the temperatures must be carried out using a suitably calibrated thermometer, preferably a digital thermometer. The sensing part of the thermometer probe must be fully submerged in the water when testing.

3 The tap must be commissioned taking into consideration any fluctuations, which may occur within the system due to simultaneous demands. It is advisable that any outlets which are connected to the same supply as the basin tap are open during setting of the mixed water temperature. It is advisable to ensure that the water temperatures are established before any attempt to commission.

4 Once the supply temperatures are stable and the normal operating conditions are established, the basin tap can be commissioned. The following sequence should be followed when commissioning the tap;

4.1 The first step in commissioning a thermostatic basin tap is to check the following:

- The designation of the thermostatic basin tap matches the application.
- The supply pressures are within the tap's operating range.
- The supply temperatures are within the tap's operating range.
- Isolating valves (and 'Y' strainers preferred) are provided.

4.2 If all these conditions are met, proceed to set the temperature following the procedure described earlier in the Calibration section.

4.3 Measure and record the temperature of the hot and cold water supplies at the connection to the tap.

4.4 Measure and record the temperature of the water discharging from the tap.

4.5 Isolate the cold water supply to the tap and monitor the mixed water temperature.

4.6 Measure and record the maximum mixed water temperature and the final temperature. The final temperature found during the test should not exceed the values quoted.

4.7 Record all the equipment used during the commissioning.

4.8 The mixed water temperature at the terminal fitting (the tap) must never exceed 2°C above the set temperature.

Commissioning

5 If the mixed water temperature exceeds the recommended temperature of 41˚C by 2˚C or does not reach 41˚C the basin tap can be adjusted as follows:

5.1 With stable supply conditions remove the temperature control knob.

5.2 Rotate the temperature control knob by one spline clockwise to increase the temperature and one spline anticlockwise to reduce it.

5.3 Measure the water discharging from the shower.

5.4 Repeat 5.2 until the desired temperature is stabilised and record the temperature.

5.5 Repeat 4.4 and 4.5

5.6 Secure the temperature control knob with the retaining screw and re-fit the cover.

6 The above information must be recorded and updated on every occasion when any work is carried out on the valve.

In Service Testing

It is a requirement that all TMV2 approved valves or taps shall be verified against the original set temperature results once a year. When commissioning / testing is due the following performance checks shall be carried out.

1 Measure the mixed water temperature at the outlet.

2 Carry out the cold water supply isolation test by isolating the cold water supply, wait for five seconds if water is still flowing check that the temperature is below 43˚C.

3 If there is no significant change to the set outlet temperature (±2˚C or less from the original settings) and the fail-safe shut off is functioning, then the tap is working correctly and no further service work is required.

Notes:

- If there is a residual flow during the commissioning or the annual verification (cold water supply isolation test), then this is acceptable providing the temperature of the water seeping from the tap is no more than 2˚C above the designated maximum mixed water outlet temperature setting of the valve.
- Temperature readings should be taken at the normal flow rate after allowing for the system to stabilise.
- The sensing part of the thermometer probe must be fully submerged in the water to be tested.
- Any thermostatic basin tap that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the manufacturers' instructions

Acura TMV3 Thermostatic Basin Tap

Introduction

The Acura thermostatic basin tap has been specifically designed and manufactured to meet the requirements of BS 7942: 2000 and NHS D08. The valve has been independently tested and approved as a TYPE 3 valve under the TMV3 scheme.

Technical Specification / Conditions for use TMV3 Valves

Outlet Temperature Adjustment Range	30°C to 50°C
Temperature Stability	±2°C
Maximum Hot Inlet Temperature	85°C
Inlet Temperature Range	52°C to 65°C : Hot Supply 5°C to 20°C : Cold Supply
Max. Working Pressure	10 bar : Static
Min. Working Pressure	1.0 bar : Dynamic
DO8 Working Pressure Range	1.0 to 5.0 bar : High Pressure
Min Temp Differential (Mix to Hot) for Fail-Safe	10°C
Max. Pressure Inlet Differential	5 : 1

NOTE: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 3 valves.

Approvals

TMV3 Scheme Approval Number: Details Available on Request

WRAS Scheme Approval Number: Details Available on Request

Fail Safe Function

The Acura thermostatic basin tap is designed to stop the mixed water flow in the event of either the hot or cold water supply failing when installed in accordance with these instructions. To ensure full closure of the mixed water flow the minimum temperature differential between the hot water inlet to the tap and the mixed water outlet **MUST be at least 10°C.**

Temperature Setting

Ensure that the basin tap is commissioned under normal system conditions. The basin tap MUST be commissioned to suit site conditions and the desired outlet temperature set by the installer;

i With normal supply conditions established and the hot and cold water supplies running, open the basin tap to its maximum temperature and leave running.

ii Remove the cover, retaining screw and temperature control knob by pulling away from the tap and the temperature stop ring, see diagram on page 3.

iii Fully open the flow control and allow the outlet temperature to stabilise.

iv Temporarily refit the control knob and using a digital thermometer it is possible to increase or reduce the mixed water outlet temperature until 38°C is re-established, by slowly rotating the control knob.

v Remove the control knob and refit the temperature stop ring onto the splined section of the cartridge. The red dot on the temperature stop ring must align with the temperature position symbol on the valve body.

vi Refit the temperature control knob in the reverse order ensuring that 38°C on the control knob is in line with the temperature position symbol.

Application

The Acura thermostatic bath filler has been independently tested by Buildcert Limited and certified as meeting the requirements of the NHS D08 specification under the TMV3 Scheme as being suitable for use on the following designations;

Wash Hand Basin **HP-W**

Installation

IMPORTANT - The following instructions must be read prior to the installation of any Inta basin tap. The installer should also be aware of their responsibility and duty of care to ensure that all aspects of the installation comply with all current regulations and legislation.

Flushing through water systems using certain chemicals may wholly or partially remove the lubricant from the internal workings of the valve, which may adversely affect its performance. We recommend that following a flushing of the system with chemicals, valves are checked for correct operation.

1 It is essential that before installing an Acura thermostatic basin tap to ensure that the supply conditions of the system, to which the tap is intended to be fitted, are checked to confirm compliance with the parameters as quoted within the Technical Specification and conditions on which the approval is granted i.e. verify supply temperatures, supply pressures, risk assessment.

2 Consideration must be made for the possibility of multiple / simultaneous demands being made on the supply system whilst the basin tap is in use, all practical precautions must be made to ensure that the basin tap is not affected. Failure to make provision within the pipe sizing etc. will affect the performance of the tap.

Installation

3 The supply system to which the Acura thermostatic basin tap is to be installed into must be thoroughly flushed and cleaned to remove any debris, which may have accumulated during the installation. Failure to remove any debris will affect the performance and the manufacturer's warranty of the product. Independent filters / check valves and isolation valves must be fitted in conjunction with the basin tap, as close as practically possible to the water supply inlets of the basin tap. In areas that are subject to aggressive water, provision must be made to treat the water supply prior to the supply entering any product.

4 The maximum flow rate of the tap will only be achieved when the supply conditions are achieved as quoted within the Technical Specification, with a flow condition under 1 bar differential pressure.

5 This thermostatic mixer tap has been designed for basin mounting. It is essential that access to the tap is not be obstructed for commissioning, testing, or any future maintenance that may be required.

6 The hot and cold water supplies must be connected to the tap strictly in accordance with these instructions i.e. hot water supply to the hot port of the tap.

7 In a situation where one or both of the water supplies are excessive, it is possible to fit a pressure reducing valve or a flow regulator to reduce the pressure(s) to within the limits as quoted previously.

8 Any thermostatic basin tap must be fitted with a back flow prevention device, such as check valves to prevent the cross contamination of supplies.

9 Isolation valves and strainers must be installed, in an accessible position, in conjunction with the Acura thermostatic basin tap as close as is practicable to the water supply inlets of the tap.

10 It is essential that the Acura thermostatic basin tap should not be installed in situations where there is a possibility of the tap being deprived of water or where demands for water are greater than the actual stored supplies.

11 To ensure that the performance levels of the Acura thermostatic basin tap are maintained (in the event of cold water failure), the temperature of the hot water supply at the point of entry to the valves must be a minimum of 10°C above the commissioned mixed water discharge temperature.

12 The Acura thermostatic basin tap must not be subject to any extreme temperature variations either during the installation or under normal operating conditions.

Commissioning

IMPORTANT - The following instructions must be read and understood prior to commissioning the Acura thermostatic basin tap. If under any circumstances there are aspects to the installation / system which do not comply with the specification laid down, the tap MUST NOT be put into operation until the system / installation complies with our specification. However if all these conditions are met, proceed to set the temperature as follows;

1 Ensure that the system is thoroughly cleaned and free from any debris prior to the commissioning the Acura thermostatic basin tap.

2 Commissioning the temperatures must be carried out using a suitably calibrated thermometer preferably a digital thermometer.

3 In the absence of other temperatures being specified, we recommend the outlet temperature quoted in Table 1 are used.

Table 1

Application	Recommended Set Mixed Water Temp.
Wash Hand Basin	41˚C

4 Each basin tap must be commissioned taking into consideration any fluctuations, which may occur within the system due to simultaneous demands. It is advisable that any outlets which are connected to the same supply as the basin tap are opened during the setting of the mixed water temperature. During commissioning it is advisable to ensure that the water temperatures are established before any attempt to commission.

5 Once the supply temperatures are stable and the normal operating conditions are established, the tap can be commissioned. The temperature setting can be adjusted following the procedure described earlier in the Temperature Setting section.

We suggest that the following sequence is followed when commissioning the valve:

5.1 Set the mixed water temperature to the required temperature.

5.2 Measure and record the temperature of the hot and cold water supplies at the connection to the bath filler.

5.3 Measure and record the temperature of the water discharging from the basin tap.

5.4 Isolate the cold water supply to the tap and monitor the mixed water temperature.

5.5 Measure and record the maximum mixed water temperature and the final temperature. The final temperature found during the test should not exceed the value quoted in Table 2.

5.6 Record all the equipment used during the commissioning.

Commissioning

Table 2

Application	Maximum Set Mixed Water Temp.
Wash Hand Basin	43˚C

6 Ensure that the application, in which the bath filler will be used, is appropriate for the approved designation. The above information must be recorded and updated on every occasion when any work is carried out on the bath filler.

Maintenance

To ensure the Acura thermostatic basin tap maintains a high level of protection, we advise the following in service testing is conducted (the same equipment used to commission the bath filler initially must be used in the following tasks).

1 After a period of between 6 and 8 weeks from commissioning carry out the following;

1.1 Record the temperature of the hot and cold water supplies.

1.2 Record the temperature of the mixed water from the basin TAP.

2 If the mixed water temperature has changed significantly from the previous test results (e.g. >1˚K), record the change and before resetting the mixed water temperature check that:

2.1 All the strainers are clean.

2.2 All the check valves are in good working order.

2.3 The isolation valves are fully open.

3 If the mixed water temperatures are acceptable, carry out the following:

3.1 Record the temperature of the hot and cold water supplies.

3.2 Record the temperature of the mixed water from the bath filler.

3.3 Isolate the cold water supply to the mixing valve and monitor the mixed water temperature.

3.4 Record the maximum temperature achieved as a result of (3.3) and the final temperature (the final temperature should not exceed the values quoted in table 2)

3.6 Record the equipment used during these tests.

4 If the mixed water temperature is greater than the values quoted in table 2 or the maximum temperature exceeds the corresponding values from previous test results by more than 2˚K, the basin tap must be serviced.

5 After a period of between 12 to 15 weeks from commissioning, carry out the sequence of tests as described in Maintenance sections 1, 2, 3 and 4.

Maintenance

6 Dependant upon the results obtained from the first two series of tests; there are a number of possible outcomes:

6.1 If no significant change in the mixed water temperatures (e.g. ≤ 1°K) is recorded between commissioning and Maintenance sections 1 or between commissioning and Maintenance sections 5, the next in service testing should be carried out at a period of 24 to 28 weeks after initial commissioning.

6.2 If a small change (e.g. 1 to 2°K) in the mixed water temperature is recorded in only one of these periods, necessitating adjustment of the mixed water temperature, then the next in service can be deferred to 24 to 28 weeks after commissioning.

6.3 If small changes (e.g. 1 to 2°K) in the mixed water temperature are recorded in both of these periods, necessitating adjustment of the mixed water temperature, then the next in service test can be deferred to 18 to 21 weeks after commissioning.

6.4 If significant changes (e.g. > 2°K) in the mixed water temperature are recorded in both of these periods necessitating service work, then the next in service test should be carried out at 18 to 21 weeks after commissioning.

7 The general principle to be observed after the first 2 or 3 in-service tests is that the intervals for future tests should be set to those which previous tests have shown can be achieved with no more than a small change in mixed water temperature.

8 In all areas periodic maintenance of the valve and associated fittings i.e. strainers, check valves will ensure optimum performance levels are maintained.

Spares

A full range of spares are available for this product from Inta.

PLEASE NOTE: Only genuine spares should be used.

Please leave this Manual for the User

To active your product warranty please visit

www.intatec.co.uk

and click on Product Registration

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E & O.E

29-05-13