



**INTATHERM IT1001/3CP
SEQUENTIAL CONTROL
THERMOSTATIC
BASIN MIXER TAP**

INSTALLATION, OPERATING AND MAINTENANCE
INSTRUCTIONS

PLEASE LEAVE THESE INSTRUCTIONS WITH THE USER

INTRODUCTION

This installation guide has been produced for the Inta range of thermostatic products. These instructions cover the installation, operation and maintenance of the Inta thermostatic products. Please read the enclosed instructions before commencing the installation of this product, please note;

WE RECOMMEND THAT THE INSTALLATION OF ANY INTA PRODUCT IS CARRIED OUT BY AN APPROVED INSTALLER

The installation must be carried out strictly in accordance with the Water Supply (Water Fitting) Regulations 1999 and any local authority regulation.

If in any doubt, we would recommend that you contact either your local water authority, the secretary of the Water Regulations Committee at WRc on Tel: 01495 248454 or Institute of Plumbing on Tel: 01708 472791

IMPORTANT

When installing the product, care must be taken not to damage/affect the finish of this product. To ensure the finish of this product is maintained, we recommend that this product be cleaned periodically with a soft cloth and mild detergent. The use of any type of abrasive or solvent-based cleaners is not recommended.

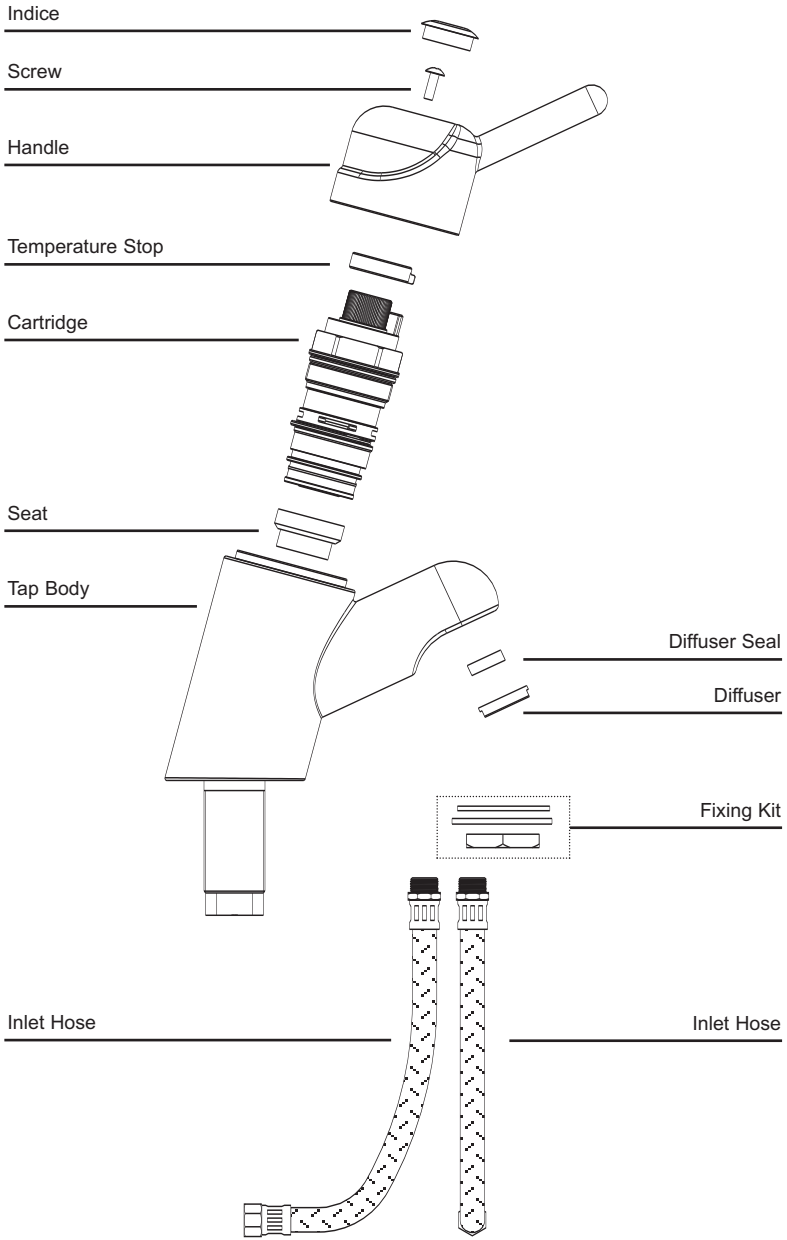
All products **MUST** be re-commissioned to suit site conditions to ensure optimum performance levels of the product are obtained

TECHNICAL DATA

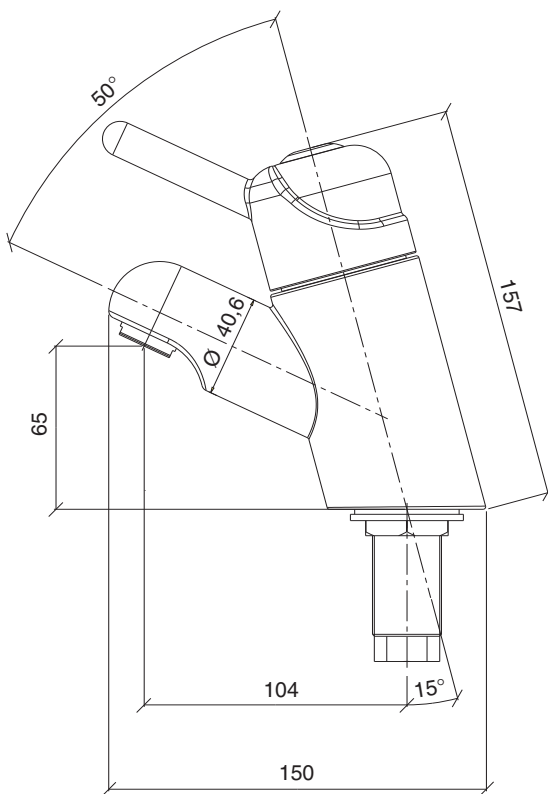
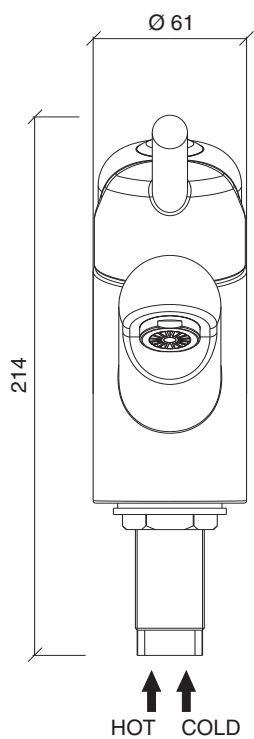
All of the Inta range of thermostatic products are suitable for installation on all types of plumbing systems, including gravity supplies, fully pumped, modulating combination boiler, unvented water heater and unbalanced supplies i.e. Cold Mains & Tank Fed Hot. They are not suitable for non-modulating combination boilers.

Max Dynamic Pressure	5 Bar	Min Operating Pressure	0.2 Bar
Max Static Pressure	12 Bar	Min Inlet Temperature	10°C
Max Inlet Temperature	85°C	Temperature Stability	± 2°C
Pre Set Factory Temp Setting	43°C	Min Temp Differential	10°C
Max Unbalanced Pressure Ratio (With Flow Regulators)	15:1	to ensure fail-safe between hot and cold supplies	
Max Unbalanced Pressure Ratio (Without Flow Regulators)	5:1		

COMPONENTS



DIMENSIONS



INSTALLATION INSTRUCTIONS

Please check that all components are in the box prior to installation of this product.

Before starting the installation of this product, ensure that the site conditions are suitable for installation of this product. The hot water supply is connected to the left hand side of the valve when viewed from the front and the cold supply to the right.

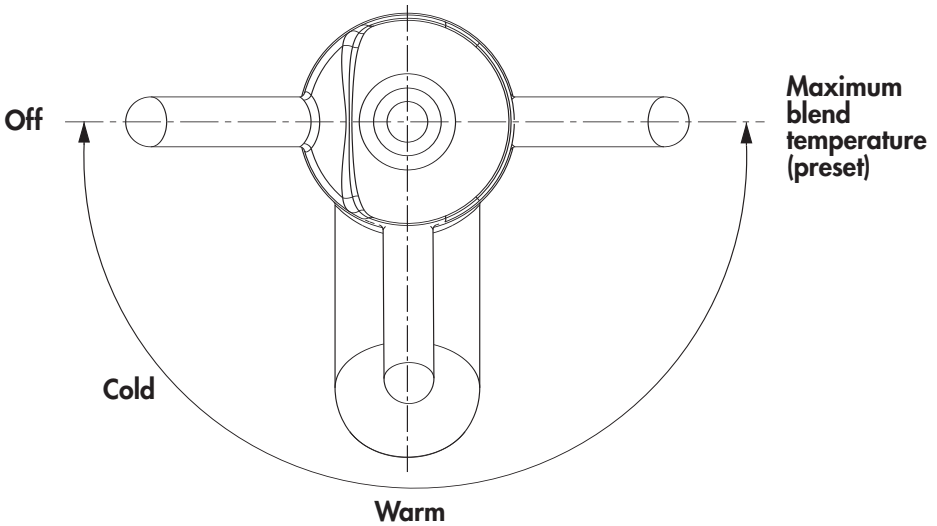
We recommend that independent filters, isolation and check valves be fitted in an accessible position in conjunction with this product for servicing purposes (Not Supplied).

All of the Inta range of thermostatic products is suitable for installation on all types of plumbing systems, including gravity supplies, fully pumped, fully modulating combination boiler, unvented water heater and unbalanced supplies i.e. Cold Mains & Tank Fed Hot. They are not suitable for non-modulating combination boilers. For optimum performance we recommend balanced pressures.

This product is intended to be installed in a single or twin tap hole wash hand basin with hole size of 30 mm - 36 mm.

It is supplied complete with flexible inlet tails. This product is identifiable by the number 950413 stamped on the cartridge and unique product reference on tap body.

OPERATION



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 43°C.

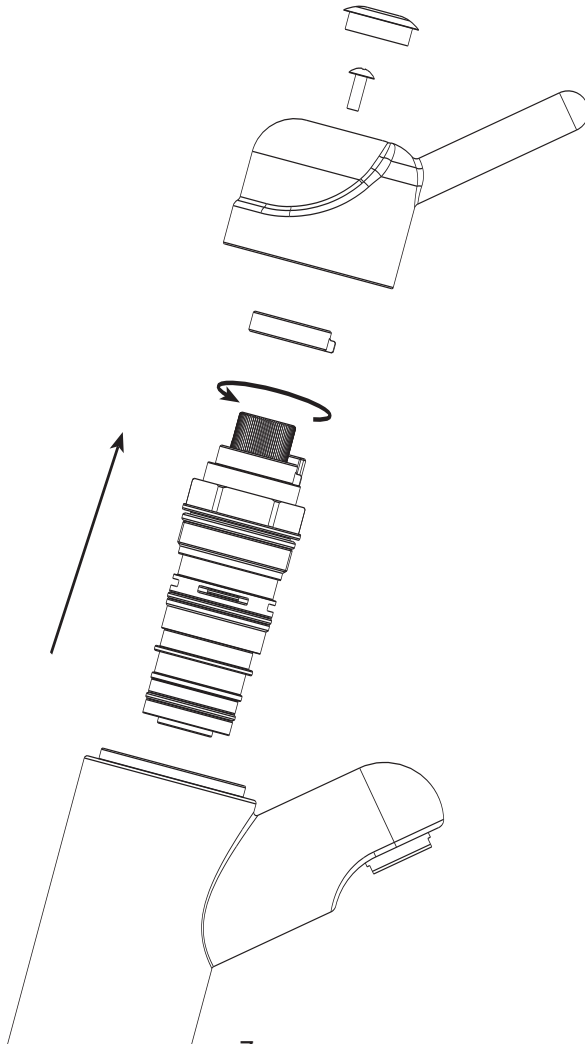
ON SITE CALIBRATION

The factory setting at 43°C can be altered to suit site conditions, care must be taken when altering the setting as **INCORRECT CALIBRATION CAN CAUSE INJURY**.

- Remove indice from tap handle
- Fully open the flow control to establish a stable flow of water at the maximum temperature set point.
- Taking care not to damage the tap body remove the indice, screw and handle from the body.
- Remove the temperature stop ring from the cartridge and set the mixed water to the required temperature.
- Once the required temperature is achieved replace the temperature stop ring and re-assemble the handle as described.

REMOVING CARTRIDGE

1. Remove the indice from the handle
2. Remove the screw and lift the handle from the tap body
3. The thermostatic cartridge is a single piece construction and should be unscrewed from the tap body using a 36 mm A/F socket.
4. When re-installing the cartridge into the tap body - it should be tightened to a maximum of 15 NM.
5. Re-commission the tap in accordance with the instructions enclosed.



FAULT FINDING

Fault	Diagnosis
Mixed water temperature is not hot enough	Ensure the hot water supply is at constant temperature above 60 deg C. Check for airlocks in the pipework
The water goes cold during a shower	insufficient stored hot water supply. Ensure that the boiler is still firing for combi boilers. Adjust the boiler control to a minimum setting of 65 deg C not necessarily the best flow rate
When the water is set at cold, the blended temperature is too hot	Hot and cold supply connections have been made in reverse
Max blended temperature is too hot or when set to hot water runs cold	Check the commissioned maximum temperature of the valve. Check connections to the valve are not reversed
Flow of water through the valve is low	Check the filters are clean and supply pressure is above 0.2 bar
No Flow of water	Ensure the valve has not fail-safed, and check that there is water flow to the valve and the check valves are not closed - see exploded drawing

AFTERCARE INSTRUCTIONS

- With all highly polished items, care should be taken not to damage any of the external surfaces.
- We recommend that to ensure the physical appearance of the product and component parts is maintained that periodically, the valve should be cleaned with a soft damp cloth and a mild detergent. The use of abrasive or solvent cleaners will damage the finish of the product.
- We recommend periodically that the diffuser is cleaned using a suitable descaling solvent. Check first it does not affect the plated surface.
- We recommend that the Intatherm is serviced at least annually.
- Only use genuine Inta spares, full list available on request.

THE FOLLOWING INSTRUCTIONS APPLY WHEN THIS PRODUCT IS USED IN A D08 APPLICATION

INTRODUCTION

The INTA range of thermostatic products has been specifically designed and manufactured to meet the requirements of BS 7942: 2000 and NHS D08. The product have been independently tested and approved as a TYPE 3 valve under the TMV3 scheme.

TECHNICAL SPECIFICATION

Outlet Temp Adjustment Range	30°C ÷ 50°C
Temperature Stability	± 2°C
Max. Hot Inlet Temp	85°C
Inlet Temperature Range	52°C ÷ 65°C : Hot Supply 05°C ÷ 20°C : Cold Supply
Max. Working Pressure	10 Bar : Static
Min. Working Pressure	0.2 Bar : Dynamic
D08 Working Pressure Ranges	0.2 ÷ 1.0 : Low Pressure 1.0 ÷ 5.0 : High Pressure
Min Temp Differential (Mix to Hot) for fail-safe	10°C
Max. Pressure Inlet Differential	10:1

APPLICATION

The Intatherm IT1001/3CP has been independently tested by WRc and certified as meeting the requirements of the NHS ~ DO8 specification under the TMV3 Scheme as being suitable for use on the following designations

Application	Range	Application	Range
Basin	High Pressure	Basin	Low Pressure-E

INSTALLATION

IMPORTANT- The following instructions must be read prior to the installation of any INTA product. 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 legislations.

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

- It is essential that before installing an INTA range of products 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 section 2 and conditions on which the approval is granted i.e. verify supply temperatures, supply pressures, risk assessments etc.
- Consideration must be made for the possibility of multiple / simultaneous demands being made on the supply system whilst the INTA range of products are 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.
- The supply system to which the INTA range of products is to be installed must be thoroughly flushed and cleaned to remove any debris, which may be accumulated during the installation. Failure to remove any debris will affect the performance and the manufacturers warranty on the product. Independent filters / check valves and isolation valves must be fitted in conjunction with the valve. In areas that are subject to aggressive water provision must be made to treat the supplies prior to entering any INTA product.
- The maximum flow rate of the valve will only be achieved when the supply conditions are achieved as quoted, with a flow condition under 1 bar differential pressure.
- INTA therm has been designed to be basin mounted. It is essential that the access to the valve is not obstructed for future maintenance that may be required to the valve or associated fittings.
- The connecting hot and cold water supplies must be connected to the tap strictly in accordance with the indications on the body of the valve i.e. hot water supply to the hot port of the valve.

- In a situation where one or both of the water supplies are excessive, it is possible to fit an Altecnic Pressure Reducing Valve WRAs approved product to reduce the pressure(s) to within the limits as quoted previously. (Altecnic Limited – Tel 01889 207200)
- Thermostatic products must be fitted with a back flow prevention device, such as check valves to prevent the cross contamination of supplies. However if required additional WRAs approved back flow prevention devices should be used.
- We recommend that Y Pattern strainers and full bore isolation valves are installed in conjunction with the INTA range of products as close as practically possible to the location of the valve.
- It is essential that the INTA range of products should not be installed in situations where there is a possibility of the valve being deprived of water or where demands for water are greater than the actual stored supplies.
- To ensure that performance levels of the Intatherm are maintained (in the event of cold water failure), the temperature of the hot water supply at the point of entry to the valve must be a minimum of 10°C before the commissioned mixed water discharge temperature.
- The INTA range of products 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 the commissioning of an Intatherm. If under any circumstances there are aspects to the installation / system which do not comply with the specification laid down, the valve **MUST NOT** be put into operation until the system / installation complies with our specification.

- Ensure that the system is thoroughly cleaned and free from any debris prior the commissioning of the INTA product.
- The commissioning of the temperatures must be carried out using a suitably calibrated thermometer – preferably a digital thermometer.
- In the absence of other temperatures being specified, we recommend that the outlet temperatures quoted in table 1 are used.

TABLE 1

Application	Recommended Set Hot Water Temperature
Basin	41°C

“Extracted from the National Health Service – Health Guidance Note – Safe Hot Water and Surface Temperatures”

- Each Valve 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 valve are open 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.
- Once the supply temperatures are established and the normal operating conditions are established, the valve can be commissioned, We suggest that the following sequence is followed when commissioning the valve;
 - a) Set the mixed water temperature to the required temperature
 - b) Measure and record the temperature of the hot and cold water supplies at the connection to the valve.
 - c) Measure and record the temperature of the water discharging from the valve from the largest and smallest draw off point.
 - d) Isolate the cold water supply to the valve and monitor the mixed water temperature.
 - e) 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 in table 2

TABLE 2

Application	Maximum Hot Water Temperature
Basin	43°C

- f) Record all the equipment used during the commissioning
- Ensure that the application, to which the valve will be used in, is appropriate for the approved designation.
 - The above information must be recorded and up dated on every occasion when any work is carried out on the valve.

MAINTENANCE

To ensure that the INTA range of products maintains a high level of protection, we advise the following in service testing is followed (the same equipment used to commission the valve initially must be used in the following tasks).

- After a period of between 6 and 8 weeks after commissioning, carry out the following.
 - a) Record the temperature of the hot and cold water supplies.
 - b) Record the temperature of the mixed water at the largest draw off flow rate
 - c) Record the temperature of the mixed water at the smallest draw off flow rate
- If the mixed water temperature has changed significantly from the previous test results (e.g. $>1^{\circ}\text{C}$), record the change and before re-setting the mixed water temperature check that:
 - a) All the strainers are clean
 - b) That all the check valves are in good working order
 - c) The isolation valves are fully open
- If the mixed water temperatures is acceptable, carry out the following:
 - a) Record the temperature of the hot and cold water supplies
 - b) Record the temperature of the mixed water at the largest draw off flow rate
 - c) Record the temperature of the mixed at the smaller draw off flow rate
 - d) Isolate the cold water supply to the mixing valve and monitor the mixed water temperature
 - e) Record the maximum temperature achieved as a result of (d) and the final temperature (the Final temperature should not exceed the values quoted in table 2)
 - f) Record the equipment used during these tests
- If the test during 9.3.e the mixed water temperature is greater then the values quoted in table 2 or the maximum temperature exceeds the corresponding values from previous test results by more than 2°C , the valve must be serviced.
- After a period of between 12 and 15 weeks after commissioning, carry out the sequence of tests as described previously where necessary.
- Dependant upon the results obtained from the first two series tests, there are a number of possible outcomes:
 - a) If there is no significant change in the mixed water temperatures (e.g. $>1^{\circ}\text{C}$) is recorded between commissioning and 10.1 or between commissioning and 10.5 – the next in service testing should be carried out at a period of 24 to 28 weeks after initial commissioning.

- b) If a small change (e.g. 1 - 2°C) 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.
 - c) If a small change (e.g. 1 - 2°C) 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 18 to 21 weeks after commissioning.
 - d) If significant changes (e.g. 1-2°C) 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 – 21 weeks after commissioning.
- The general principal to be observed after the first 2 or in-service tests is that the intervals for future test should be set to those which previous tests have shown can be achieved with no more than a small change in mixed water temperature.
 - In all areas periodic maintenance of the valve and associated fittings i.e. strainers, check valves will ensure optimum performance levels are maintained.

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