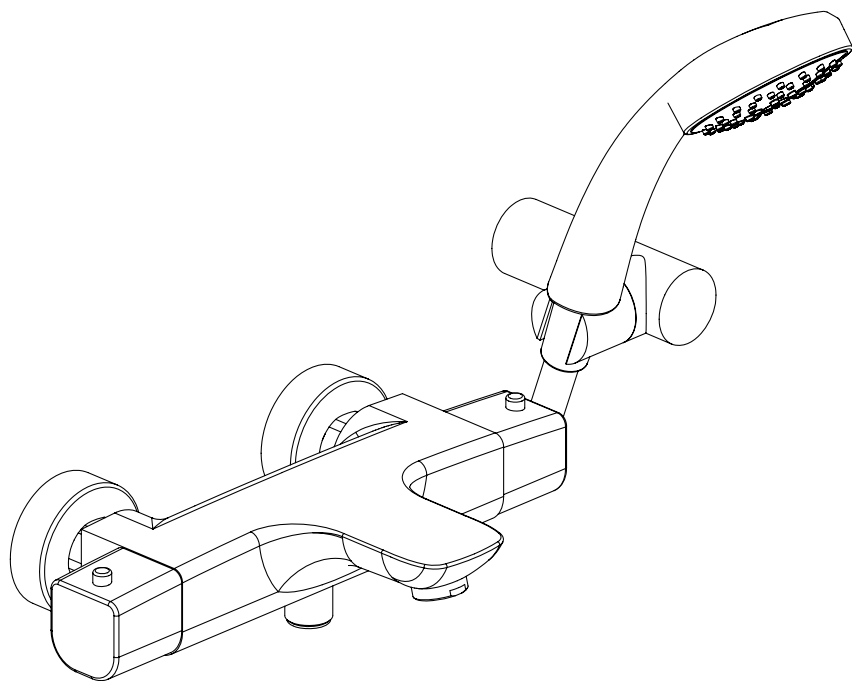


**NORTH THERMOSTATIC BATH SHOWER MIXER**

**NO421TWC** chrome  
**NO421TWM** matt black



**INSTALLATION INSTRUCTIONS**

crosswater<sup>✕</sup>

## INTRODUCTION

**Please read these instructions carefully and keep in a safe place for future reference.**  
**General Installation Requirements.**

The installation must comply with regulations of the Local Water Authority as contained in their bylaws. All of the taps in this range are single flow (the hot and cold water mix in the body) and should therefore be supplied with hot and cold water at balanced pressures, both from the tank or both from the mains (via a combination boiler for example). If the taps are not supplied at balanced pressures then the mixer will not function correctly. It will also be necessary to fit non-return valves on both hot and cold feeds. It is very important that all pipework is flushed thoroughly after installation to avoid damaging the ceramic discs.

### **Minimum/Maximum working pressure**

These taps are suitable for high pressure installations. They are fitted with a half turn ceramic disc cartridge which provides a good flow rate with very smooth movement. The maximum water pressure is 5 bar, the minimum water pressure is 1 bar (note: mains cold water is normally supplied at between 2 and 3bar). For installations where the mains pressure exceeds 5 bar a pressure reducing valve should be fitted. The tap is fitted with a flow straightener. If your water is supplied at high pressure you may prefer to change the nozzle to an aerator.

### **Approvals**

All products are manufactured using materials tested and approved under the Water Bylaws Scheme and comply with requirements of British Standard 5412:1996 where applicable.

### **Preparation and byelaw requirements**

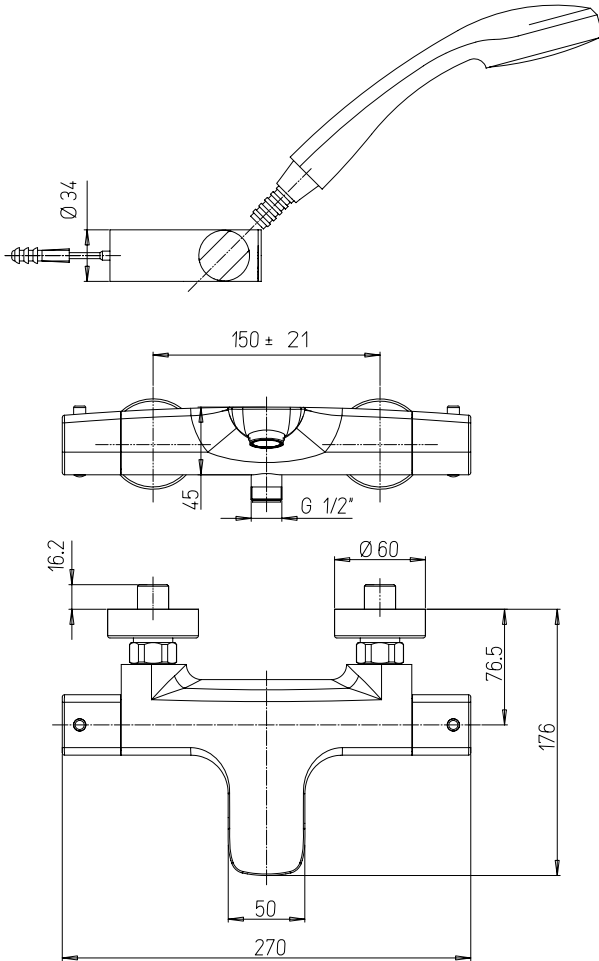
These taps are single flow so the hot and cold water mix in the body. Water byelaws require that where the hot water is supplied from a tank and cold from the mains, non return valves are fitted on both hot and cold pipes as close as possible to the tap. These are not supplied. Where combination boilers are fitted it is only necessary to shut off the incoming mains and turn the boiler off and non return valves are not required.

### **WARNING**

**Before installing the new mixer it is essential that you thoroughly flush through the supply pipes in order to remove any remaining swarf, solder or other impurities. Failure to carry out this simple procedure could cause problems or damage to the working of the mixer.**

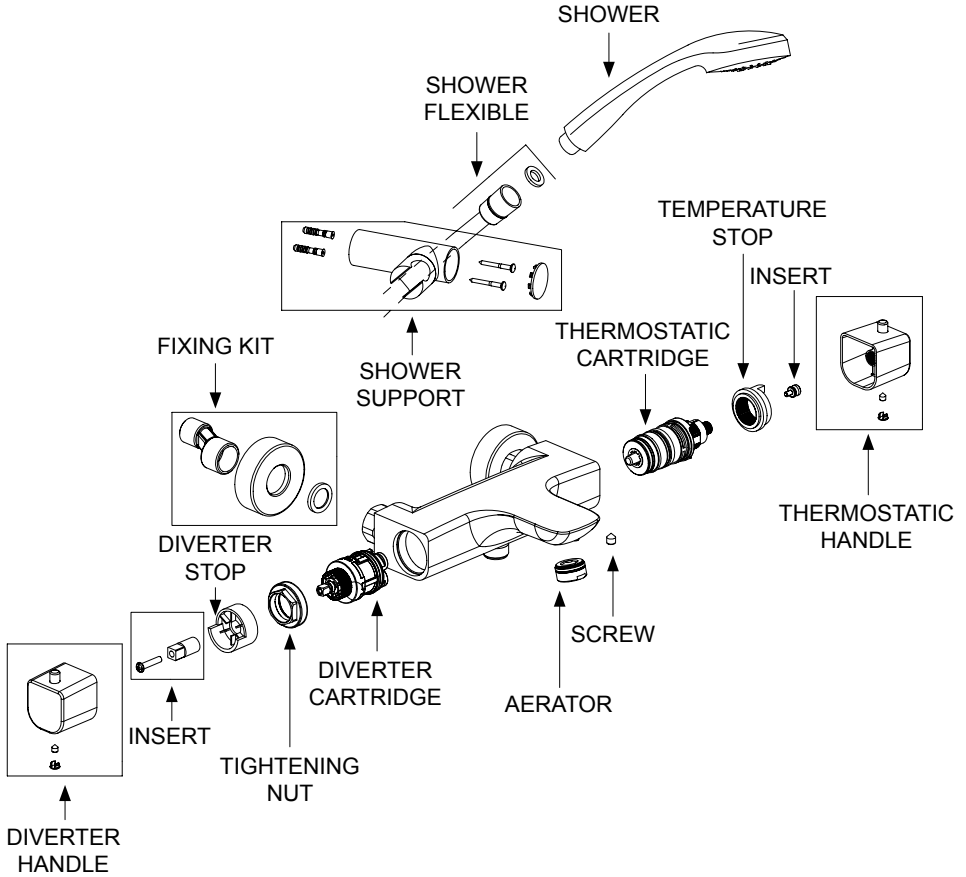
These hints have been prepared for your guidance, you must exercise due care at all times. We do not accept responsibility for any problems that may occur through incorrect installation.

## DIMENSIONS



NOTE: ALL DIMENSIONS IN MILLIMETRES

## INSTALLATION



## INSTALLATION

First shut off your water heating system then, with your mains stop cock closed, open the lowest hot and cold taps in the house and allow to run until the cold storage tank and pipes are empty (the hot water storage cylinder always remains full). Fitting isolating valves to the inlet feeds is recommended for ease of maintenance.

### INSTALLATION



**Remember to turn off the mains water supply before connecting to any existing pipe work.**

### WALL INSTALLATION

Close the main water supply. Before proceeding with assembly, it is advisable to purge the hot and cold water pipes to prevent dirt and small impurities from compromising the operation of the tap. Carefully clean the threads of the main power supply. Make sure the system is set up to have two G1/2" female fittings on the wall with  $150 \pm 20$  mm center distance to which to screw the eccentric fittings. Ensure the tightness of the coupling with the use of Teflon. Screw the rosettes up to the stop on the wall. After verifying that the internal non-return valves are correctly positioned, insert the G3/4" gaskets inside the caps, then place the faucet body on the eccentrics previously installed and lock it by means of the caps. Use of a suitable operating key, taking care not to damage the external surfaces. Once assembly is complete, the tap body must remain perfectly horizontal. Open the water and check the correct operation of the tap as well as the perfect seal of all its parts. Operating the handle on the right adjusts the water outlet temperature, the faucet is provided with a device against burns, if you want a higher temperature, press the button and continue rotating. The left handle closes and adjusts the amount of water being dispensed. The article is provided with a bath and shower outlet and this also regulates the deviation, turning in a direction the supply is diverted to the shower, turning in the opposite direction the flow is diverted to the aerator; regardless of the type of output selected, the further the handle moves away from the central closing point, the more the flow increases progressively.

### SHOWER ASSEMBLY

The article is equipped with a shower support with duplex, pierce the wall at a height that allows the comfortable support of the shower; insert the plugs in the holes, fix the support to the wall with the aid of the screws and insert the cap. Before connecting the shower, check that the non-return valve is correctly positioned in the mixer, then screw the cap of the hose onto the threaded fitting, interposing the gasket, then connect the end of the hose to the shower, always inserting the gasket

### ATTENTION

Having first checked all new connections, turn on the mains stop cock, close all taps except the new mixer and as the system starts to refill check for leaks. Once you have satisfied yourself that there are no leaks, switch on the water heating.

## MAINTENANCE

### CLEANING THE HEADWORK

The concealed headwork should give trouble free service, but in the event of any problems, servicing is straight forward.

### THERMOSTATIC CARTRIDGE REPLACEMENT (close the water system)

**Remember to turn off the mains water supply before performing any maintenance work**

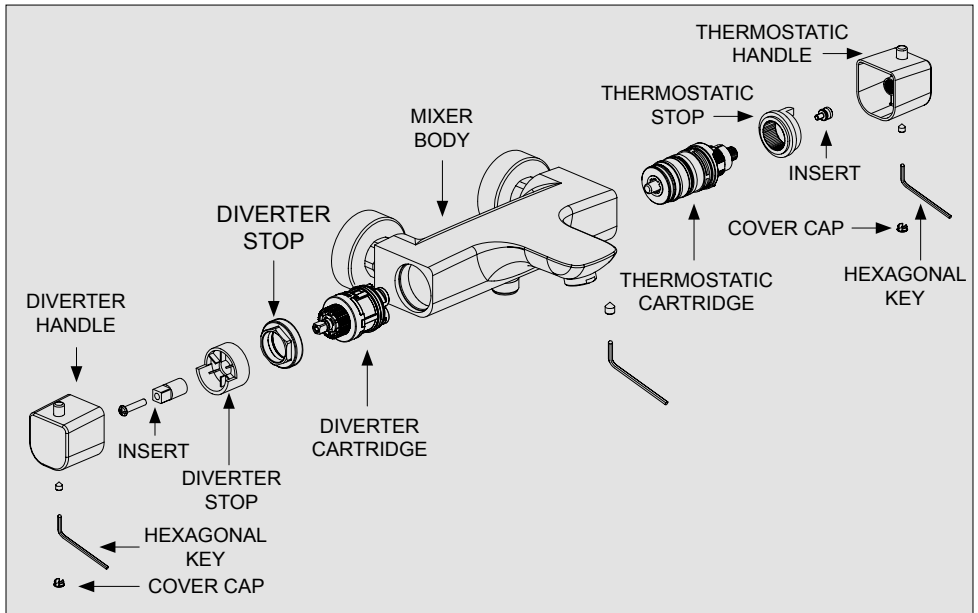
To remove the thermostatic cartridge, remove the indice, unscrew the tightening dowl with a 2.5 mm HEX wrench and remove the handle, then remove the temperature stop and the pin from the thermostatic cartridge.

Unscrew the threaded grub screw under the thermostatic body with a HEX 3mm wrench and then remove the thermostatic cartridge from the tap.

Insert the new thermostatic cartridge in the appropriate seat of the tap, taking care to make the positioning hole coincide with the seat of the lower fixing dowl, then screw the latter avoiding to tighten it vigorously. Excessive closure may cause malfunctions or breakages.

Absolutely avoid moving the rod of the cartridge, so as not to lose the calibration.

Reassemble the other components in reverse order.



**DIVERTER CARTRIDGE REPLACEMENT (close the water system)**

To remove the diverter cartridge, remove the indice, unscrew the locking grub screw with a 2.5mm HEX wrench and remove the handle. Unscrew the screw and remove the square insert. Remove the mechanical flow rate lock, remembering the mounting direction and finally unscrew the cartridge locking ring nut.

**CLEANING**

The chrome and matt black we use on our taps is very durable, nevertheless care should be taken when cleaning them. They should be cleaned only with warm soapy water followed by rinsing with clean water and drying with a soft cloth. All finishes are vulnerable to acid attack and some strong substances such as household cleaners, disinfectants, denture cleaners, hair dyes, wine making and photographic chemicals can cause the surface to go black or peel.



This product should only be fitted by a qualified plumber to NVQ (National Vocational Qualification) or SNVQ (Scottish National Vocational Qualification) Level 3. Should the installation be completed by a non-qualified person then the guarantee may be considered invalid.

For a claim made under our warranty written certification of your installers credentials can be required. For further information or to find a qualified installer in your area please visit the Institute of Plumbers website - [www.iphe.org.uk](http://www.iphe.org.uk)

## THE QUALIFICATIONS

At present, to be a plumber you need to follow the National Vocational Qualification (NVQ) route (Scottish National Vocational Qualification - SNVQ - in Scotland). These qualifications are made up of theory and practical work in the classroom/purpose built training facility and work based experience with a working plumber. Colleges should help students find a work placement, although many students organise it themselves. The S/NVQ qualification works in levels. All recently qualified plumbers should hold S/NVQ Level 2 as basic with Level 3 as the preferred level. Level 2 will give you the foundation you need for a career in plumbing and teach you domestic plumbing to a satisfactory level. Level 3 is more comprehensive and deals with domestic, commercial and industrial plumbing along with aspects such as gas - if you want to one day set up your own business, this is the level to reach. The Institute of Plumbing and Heating Engineering, and the industry as a whole recommends that all plumbers reach a minimum of Level 3.

Reaching Level 3 has other advantages. The Institute runs a Master Plumber Certificate, which only those attaining Level 3 or equivalent can reach as long as they have the relevant experience as well. Those with S/NVQ Level 3 can (once in membership with the Institute for five years as a Member MIPHE) gain Engineering Technician EngTech status with the Engineering Council (UK).

For any further information please contact  
Crosswater on: **0345 873 8840**

Or visit our web-site at [www.crosswater.co.uk](http://www.crosswater.co.uk)