PRO450DC/J/V





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

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.

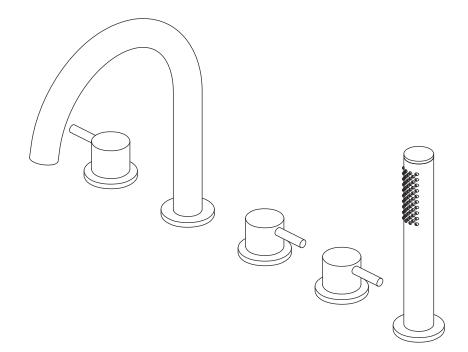
The S/NVQ qualification works in levels. All recently qualified plumbers should hold S/NVQ Level 2 as basic with Level 3 as the preferred level. Level 2 will give you the foundation you need for a career in plumbing and teach you domestic plumbing to a satisfactory level. Level 3 is more comprehensive 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: **0845 873 8840**

Or visit our web-site at www.crosswater.co.uk

The manufacturer reserves the right to make technical modifications without prior notice.



INSTALLATION INSTRUCTIONS





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 HP2

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 6 bar (note: mains cold water is normally supplied at between 2 and 3bar). For installations where the mains pressure exceeds 6 bar a pressure reducing valve should be fitted. The tap is fitted with a flow straightener for use in low pressure installations. 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

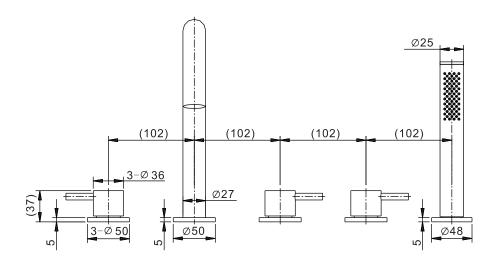
These taps are single flow so the hot and cold water mix in the body. Water byelaws require that where the hot water is supplied from a tank and cold from the mains, non return valves are fitted on both hot and cold pipes as close as possible to the tap. These are not supplied. Where combination boilers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

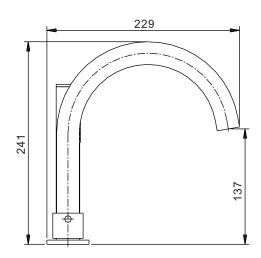
WARNING

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.

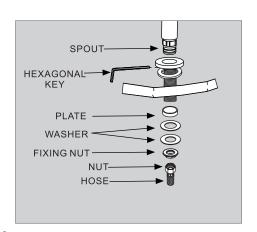
DIMENSIONS

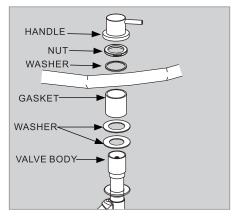






INSTALLATION -SPOUT COLD CONTROL DIVERTER HANDLE HANDLE CONTROL HANDLE HANDSET VALVE **ESCUTCHEON BODY** WASHER HOSE HOT COLD INLET INLET





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.

Attach the flexible hoses to the outlets on the diverter valve and check they reach to the required position on the deck prior to drilling any holes or arranging layout (see illustration page 6).

Insert the bath spout into the correct tap hole on the bath (or work top).

The traditional layout is as illustrated below but this may vary, please note:

- . the hot and cold valves will always be either side of the spout
- . The diverter and handset position can be positioned to either the left or right but the distance between diverter and valves should not exceed the length of flexible connectors provided;

Once the layout is established make sure there is enough thread to tighten the spout to the unit. Then slide the black washer and retaining plate up the threaded screw and hand tighten the fixing nut.

Both side bodies must then be fitted from the under-side of the bath (or work top), without the chrome flanges fitted making sure that the "back nuts" are already screwed onto the threads. The outlets of both side bodies must then be aligned so that the flexible pipes can supply water to the diverter valve which you secure in the same way as the valves. Once the alignment of each item is achieved the back nuts under the bath can be tightened to allow the chrome flanges to be fitted from above the controls. The shower hose support can then be fitted to the remaining tap hole. The hose screwed on to the base of the support and connected to the bottom outlet of the diverter.

The copper pipes then need to be secured to the hot and cold valves using the compression fittings and washers supplied.

The Hot (to the left side) and Cold (to the right side) water supplies can then be connected to the 3/4" fittings at the bottom of each side body.

The tap setup must then be examined for any leaks under the bath.

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.

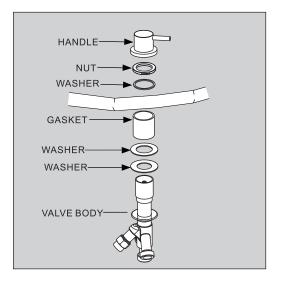
Once you have satisfied yourself that there are no leaks, switch on the water heating.

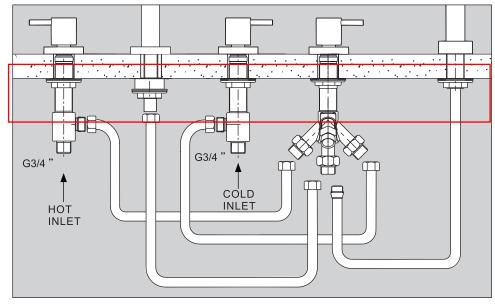
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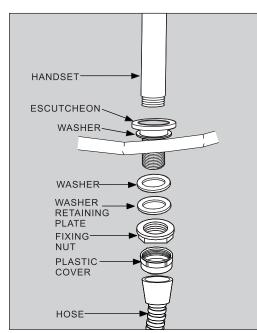
MAINTENANCE

Once the valve has been set correctly, the handle can be screwed to the valve body. Adjust the direction of the handle then tighten the handle with the back nut.





The hose is to be connected with the washer provided. A thread sealant may also be used such as PTFE Tape.



CLEANING

The chrome and gold plate 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.

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