CHANGING TAPS

SKILL LEVEL • • • • •

Basic plumbing skills would be useful. Good agility and dexterity are essential to work in cramped conditions.

SAFETY FIRST

Ensure all metal pipes and the bath (if metal) are bonded to a common earth. Take care when using a blowlamp. Keep naked flames away from flammable material. Make sure that the water is off and well drained before placing a lead lamp near the underside of the taps. If possible, use a water-resistant double-insulated lamp. When working upside down, wear eye protection.

INTRODUCTION

Changing taps can give a new lease of life to a bathroom suite or kitchen, and modern fittings make the job a lot easier than it used to be.

The most difficult part is removing old taps which, in bathrooms, may be puttied in. On a workbench it would be a fairly easy job but the inaccessibility makes it awkward, so don't rush into it. Invest a little time in getting comfortable, and you will work faster with less strain. Get a good light so you can see exactly what you are doing and, if you have to lie on your back, use a cushion for your head.

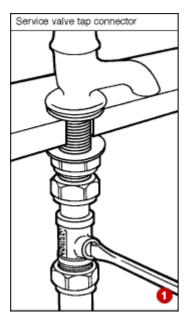
2 - Getting Started

Make sure you turn the water off properly before you begin. Once the old taps are out, things become easier because you can use new, user-friendly fittings.

If you are fitting new taps at the same time as fitting a new sink or bath, it is easier to fit the taps before you put the sink/bath in place. Sometimes you can attach whole sections of pipework as well.

Not all taps are suitable for British-style low-pressure systems which use a tank in the loft. So check before buying. Continental taps are made for mains pressure. If you have an unvented water cylinder or combination boiler, then Continental taps should work well. If you have a tank in the loft, it is best to stick to British-made taps.

3 - Service valves



Tap connectors can be substituted for integral service valves to provide an easy means of shutting off the water. The top end fits onto the tap and the bottom end is a compression fitting for the pipe. The valve can be turned off for re-washering and servicing the tap (1).

If access is difficult, use Speedfit hand-tightenable tap connectors with integral 'O' rings. The pipe pushes into the end of the fitting once it has been screwed onto the tap. Fibre washers can be held in place by wrapping a few turns of PTFE tape around them and the top of the connector. This also helps make a better seal.

4 - Preliminary checks

New taps are all made to standard dimensions, but check the hole distances in old baths or sinks, as they aren't always compatible with mixer taps. Mixer-tap holes for baths should be approximately 180mm (7.25in) apart, and 195mm (7.75in) apart for sinks. If they aren't standard, you will need to buy adjustable union taps with swivels.

Check that the spout is long enough to deliver water into the bath or basin without dribbling over the side. If you have an old bath with non-standard tap-hole centres, you can buy a mixer with adjustable cranked swivel tails. Alternatively, fit individual taps.

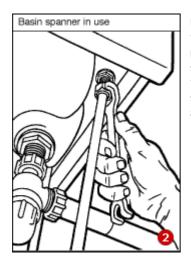
You may also find that the holes in a basin, sink or bath are square (set like diamonds). A new smaller bodied tap doesn't always cover the hole. The only way around this is to buy some chrome cover plates and put them on first.

Some bath taps are connected directly to lead pipes with a wiped joint. The lead can be cut back to a straight section and joined with a special mechanical fitting. Don't try to solder copper fittings on to the lead. Where the lead goes back to a galvanized-iron pipe, it will be easier to unscrew the lead completely and use new flexible tails or lengths of plastic pipe.

If you want to fit a bath/shower mixer, make sure that both the existing taps are fed from the low-pressure tank-fed system. A quick check can be made by turning on the tap and holding your thumb over the end immediately. If the pressure pushes your thumb off it is most likely to be a mains-fed tap.

5 - Removing old taps

Turn off the water and drain the pipes through the taps. If possible, open other taps lower on the system to drain any remaining water in the pipes. Check that the water is completely shut off - it isn't easy or pleasant to work with water still dribbling through the pipes.

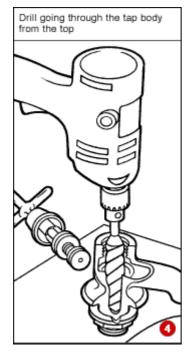


Use a claw spanner to undo the tap connectors and back nuts on the underside of the sink, bath or basin (2). If the taps begin to turn, get somebody to hold them with a wrench or block of wood.



You can cut a notch in a piece of wood and use it as a lever to hold the taps steady. Alternatively, mark two holes where the spouts are positioned and drill two holes so the piece of wood can be slipped over both spouts to hold the taps steady (3).

Remove old taps and the complete waste fitting if the new taps incorporate a pop-up waste.



If the taps won't budge, it is often easier to cut through the brass back-nut with a hacksaw, and then prise the nut open with an old screwdriver. When this is impossible due to lack of space, the taps can be drilled from the top (4).

Select a drill of the same diameter as the back-nut under the tap. This will be a 3/4in drill for a 1/2in basin or sink tap or a 1in drill for a 3/4in bath tap.

Remove the whole of the head-work and carefully drill straight down through the body of the tap. Be careful that the drill doesn't snag. It is best to use a drill with torque control if you aren't sure you can hold it.

Don't try turning basin taps in their holes while you hold the back-nut steady or you might damage the china or enamel.

Undo the head mechanisms of taps before fitting and check the inside is free of swarf. A surprising number of new taps contain debris which can damage 'O' rings and washers.

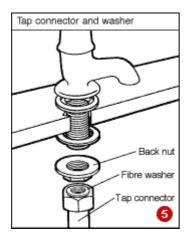
6 - Fitting new taps

Single taps sometimes twist when they are turned off. They should have anti-rotation washers to hold them steady. Alternatively, you can bed the taps in silicone sealant and let the whole assembly dry for 24 hours.

Clean the area around the taps. If the bath is metal and there are signs of rust, use a rust remover before fitting the taps. Fit the new taps by placing them through the hole with the rubber anti-rotation washer on the upper side. Hot goes on the left, cold on the right.

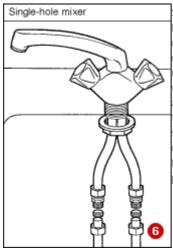
It is easier to reach the far tap under a bath if you unscrew the overflow pipe from the hole in the bath. Remember to replace it afterwards.

Place a plastic top-hat spacer washer (if fitting to a thin sink) on the underside and hand-tighten the back nuts. Hold the tap steady and tighten the back nuts with a wrench or box spanner.

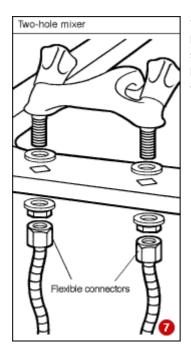


If the old pipework fits, you can use it, but replace the fibre washers in the tap connectors (5). If the old pipes don't fit, or are awkward, it is easier to cut the pipes back and fit new connectors.

The easiest connectors to fit are the braided flexible type. Make sure they have rubber or fibre washers in them before you screw them on.



Single-hole mixers have fairly flexible copper tails (6). You can bend them slightly but don't try bending them any more than 45 degrees or you will kink the pipe. The tails are easier to connect because they are longer, and you can see what you're doing. Use compression fittings or pushfit fittings to join the pipework to the taps.



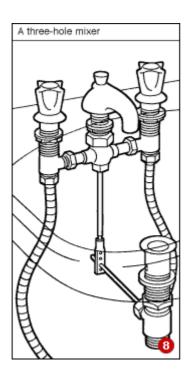
Two-hole mixer taps need to be sealed above the bath or sink with the special washers provided. Check the holes are a standard distance apart (7).

Connect the tap end of flexible connectors before attaching them to the supply pipes.

Flush pipes through with the taps open before closing them off. If a tap doesn't shut off properly, don't force it or you will damage the washer or disc. Open it up fully, run the water and then close it again. This should clear any debris.

7 - Three-hole basin and bidet mixers

Assembling a three-hole mixer is done by placing each section through the holes in the basin or bidet and connecting the pipes underneath (8). Full instructions come with the tap.



8 - Final checks

If you get a leak there is always a reason, so don't try to force the nut on further than it should go. It is better to turn off the water and undo the fitting so you can see exactly where the problem lies. Examine the surfaces of the metal and look closely at the sealing washers. Check the pipes are squarely aligned and screw the tap connectors back on. You should find this does the trick!