

Flush fixing to solid walls

When flush mounting a box in a solid wall, you need to cut a neat recess through the plaster and into the masonry behind. Wear gloves and protective goggles and test for hidden pipes and cables first.



1 Hold the mounting box in position, check with a spirit level, then draw its outline on the wall. Using a masonry bit and hammer action drill, make holes within the outline to a slightly greater depth than that of the mounting box. Set the drill's depth stop, or wrap masking tape around the bit as a guide.



2 Chop out the plaster and masonry with a bolster and club hammer. Check the fit of the box. Hold it in place, mark the fixing positions, drill and plug the holes. Cut a channel for the cable before attaching the box. Isolate the circuit and make the final connections (see CHANGING A SOCKET, Step 3, overleaf). Fit the faceplate and check the wiring is correct using a socket tester.

Step 3, overleaf). Fit the faceplate and check the wiring is correct using a socket tester.

Flush fixing to a stud wall

When flush mounting a socket in a timber-framed partition wall (stud wall), use a cavity fixing box with a flange that sits against the face of the wall. Use a stud finder to check that the wall's framework will not be in the way (see IDEAL FOR THE JOB).



1 Hold the box in place and use a spirit level to ensure it is horizontal. Draw around it in pencil. Test for hidden pipes and cables, then push and twist a screwdriver through at diagonally opposite corners of the outline so that you can insert the blade of a padsaw or plasterboard saw.

2 Cut outwards from the holes, following the box outline, and remove the

plasterboard. Check that the box fits in the hole. remove the knock-out from the box. If it's a metal box, fit a rubber grommit in the resulting opening to protect the cable from the sharp edges. Push the box back into the hole, feeding the cable through the opening. Push in or turn the securing lugs so that they grip the rear face of the plasterboard firmly. connect the wires (see CHANGING A SOCKET, Step 3, overleaf) and fit the faceplate. Check the socket is correctly wired using a socket tester.

Ideal for the job

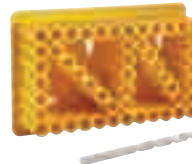
Socket tester

This plug-in tester confirms that a circuit is dead - and so safe to work on - and also whether a socket is wired correctly.



Socket template

When cutting out a recess for a flush mounting box, a socket template will allow you to drill a series of closely spaced holes for a single or double box without the need to draw around the box first. It will also prevent the bit from wandering.



Stud finder

Use a stud finder to locate the timber supports (studs) in a stud wall. This will also help you detect any hidden pipes or cables before you start drilling.



B&Q you can do it

Learn more about electrical installations with the bestselling **you can do it – the complete B&Q step-by-step book of home improvement**. Only **£16.98**



Printed on 100% recycled fibre.



Please remember to recycle this leaflet when you have finished, you could even compost it as the leaflet has been printed using vegetable-based inks.

A summary of this leaflet can be made available in Braille, large print and audio cassette. Please ask for details or email us at diversity@b-and-q.co.uk

Every effort has been made to ensure that the instructions given in this leaflet are accurate and will enable you to do the job safely and successfully. Please follow instructions carefully and seek expert advice in the event of difficulty.

©2008 B&Q plc. Hampshire, SO53 3YX

All information correct at time of going to print.

HOWT0117



how to... replace a socket

tools

- socket tester
- screwdriver
- pipe and cable detector
- hammer action drill with masonry bits
- spirit level
- pencil
- protective gloves
- safety goggles
- bolster
- club hammer
- stud finder
- padsaw or plasterboard saw

materials

- socket faceplate, same size as original or new double socket
- screws
- green/yellow sleeving, if required
- wall plugs and screws, if required
- mounting box
- adhesive tape
- cavity fixing box

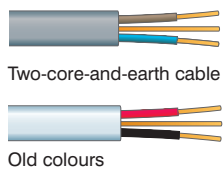
Replacing an electrical socket or converting a single socket into a double are simple jobs. Sockets can be surface or flush mounted. Surface mounting electrical fittings is easier - a mounting box is screwed to the wall - but flush-mounted fittings look better and are less prone to accidental damage.

Minor electrical work

You don't need to be a qualified electrician to replace a socket. You can do this sort of minor electrical work without notifying your Local Authority Building Control Department, but the work must be done in accordance with the standards in the relevant Building and Electrical Regulations and you should consider having the work checked by a competent electrician to make sure it is safe.

Understanding cable colours

Electricity flows to all appliances in the home by means of cable, which is usually hidden behind walls, ceiling and floor. Cable contains conductors called cores, set side by side within a thick white or grey PVC outer sheath. The core colours in these cables have changed, and all electrical installation work that has commenced since 31st March 2006 has used the new colours. In new two-core-and-earth cable, the live or phase core is separately insulated in brown sheath (in old cable the colour is red); the neutral core is in blue sheath (in old cable, neutral is black). The new colours are the same as those that have been used in flex for many years. The earth core, or protective conductor is bare and runs between them. If old and new two-core-and-earth cables are joined at socket terminals, it is essential to take care to connect the cores correctly, ie old red to new brown (for live) and old black to new blue (for neutral). In addition, a warning notice like this (below right) must be fixed prominently at the distribution board or consumer unit.



CAUTION

This installation has wiring colours to two versions of BS 7671.

Great care should be taken before undertaking extension, alteration or repair that all conductors are correctly identified.

Safe electrics

Before you start any kind of electrical work isolate the circuit by removing the circuit fuse from the consumer unit – put it in your pocket so it can't be replaced by accident – or switch off the relevant circuit breaker and lock it if you can. Double-check the circuit is dead with a voltage tester/meter/socket tester (see IDEAL FOR THE JOB). For a lighting circuit you need to check with a voltage tester. Never take risks with electrical safety.

Changing a socket

An electrical socket may be broken or become damaged if it overheats and scorches. If the problem is scorching, it will usually have been caused by a loose connection in the socket or by loose connections in the plug. Don't plug it back in without dealing with the problem or it will just happen again.



1 Isolate the circuit (see SAFE ELECTRICS, above). Use a socket tester to double-check that it is dead. Unscrew the socket faceplate and pull it away from the wall, keep the screws in case the new ones don't fit.



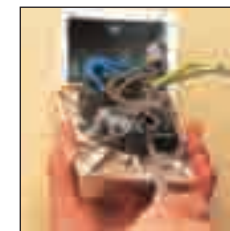
2 Loosen the terminal screws and free the cable cores. If the insulation is heat damaged, cut back the cores and strip the ends. Run green/yellow sleeving over the earth core if you find it bare.



3 Connect the (old) red or (new) brown core or cores to the live terminal (L) of the new faceplate, the (old) black or (new) blue core or cores to the neutral terminal (N) and the earth core or cores to the earth terminal (E or \perp). Tighten the terminal screws fully. Fit the new faceplate. If the new screws don't fit the lugs of the old box, use the original screws. When power is returned to the circuit, use the socket tester to check it is wired correctly.

Single flush socket to a double

Converting a single socket to a double is a simple way of increasing the number of sockets in a room without the need to add a spur cable from the main circuit cables. If the socket is flush mounted, it is very easy to replace it with a surface-mounted double socket. There are special socket conversion boxes available for doing this, or you can use a standard double socket and drill and plug the wall, as shown here. If you want the socket to be flush mounted, however, you will have to remove the old box and make a larger recess for a new one (see overleaf).



1 Isolate the circuit. Use a volt meter/socket tester to double-check that it is dead. Unscrew the faceplate and disconnect the cables from the terminals of the single socket mounting box. Run green/yellow sleeving over the earth core if you find it bare.



2 Remove the knockout in the new surface mounting box and pass the cables through. Then mark the fixing holes on the wall in pencil. Take the box away, check for hidden pipes or cables, and then drill and plug the wall behind.



3 Screw the new box in place and then connect the cables to the terminals (as for CHANGING A SOCKET, Step 3). Fit the new faceplate. Use the socket tester to check it is correctly wired.

Safety first

If the cable won't reach the terminals of the new socket without straining, don't pull it. Use a specially designed crimp or terminal block to attach a new short length of cable. But only do this if there is room for it inside the mounting box; all wiring connections must be accessible, not buried in the wall behind.