

CLARITY/BT ADSL EXTENSION KIT INSTALLATION GUIDE

Installation and Connection to Direct Telephone Lines

It's important to follow good wiring practices on fitting equipment to your telephone line to ensure that your ADSL extension socket and cabling will not endanger the public telephone networks, as well as giving you trouble-free service of course.

Each telephone exchange line coming into your home or office should be terminated by means of an NTE5 "master socket" (identifiable by its removable lower front panel) which must be installed by BT. The following assumes your master socket is an NTE5 type, and that you've got a BT ADSL Adaptor Front Plate already fitted.

Sockets must always be placed at least 50mm (2 inches) from mains electrical outlets and must not share wall fixings or back boxes with electrical outlets.

Take care in bending telephone cables that kinking or other damage is avoided.

Installing the cable

Do not plug the new cabling and socket into the BT master socket until installation work is completed. There must not be more than 50m (164 feet) of cabling between your master socket and ADSL extension socket. The cabling must at all points be kept at least 75mm (3 inches) from mains electrical cabling and long runs parallel to mains cabling should be avoided. If your cabling needs to cross an existing mains cable, the crossing should be made at right angles wherever possible.

Where cabling passes through a ceiling or floor void it must be fixed wherever necessary to ensure separation from mains electrical cabling.

All bends in the cable should be no sharper than 25mm (1 inch) radius. On no account should staples be used to fix the cable; only use suitable cable cleats (5mm size)

Positioning

Avoid kinking or crushing the cable. The ADSL cabling and extension socket are not designed for use outdoors or undue damp or condensation. Installation should be avoided near to sinks, wash basins, showers, baths, cookers, damp walls, window sills and newly plastered walls.

Extension sockets should always be mounted vertically and never horizontally on window sills. Extension sockets should not be mounted on skirting boards.

Care should be taken to avoid damp conditions, so installation in bathrooms and toilets, kitchens and swimming pool areas or similar is **not** recommended.

Suggested method of installation

- Lay the cable plug at the ADSL socket into which it is eventually intended to plug. **DO NOT INSERT THE CABLE PLUG INTO THE FRONTPLATE AT THIS TIME.**
- Uncoil the cable along the path where you'll be securing it, until the position where the extension socket is to be fixed is reached. Ensure that the installation guidelines for cabling are complied with and that there's sufficient slack in the cable to enable the plug to be easily inserted into the socket.
- Remove cable entry cut-outs in the socket back box if and as required, and mount the back box to the wall in the required position using an appropriate method for the relevant type of wall surface/material.
- Cut the cable to the required length, ensuring that there is sufficient cable to pass through the cable entry cut-out in the socket back box leaving sufficient length work freely with the wiring and to enable the cable to be connected to the terminal connector on the socket front panel.
- Pass the cable end through the appropriate cut-out in the socket back box and strip back the outer sheath by approx 50mm (2 inches). Push the wires into the terminal connectors using the tool provided with the kit or better, ensuring that the wiring connections are made as per the table shown overleaf.
- Attach the socket front panel to its back box, ensuring that there are no trapped wires, using the two screws provided.
- Once the extension socket has been installed, the cable plug may be inserted into the left hand socket in the ADSL frontplate. Your ADSL extension socket is now ready for use.
- Test the circuit's operation at this stage before securing the cable.
- Finally secure the cable to the wall using appropriate cable cleats—in the case of this kit, 5mm cleats such as sold by Clarity, or from most hardware stores. Cleats should not be hammered in tight, and ideally should be placed at UNEVEN intervals. **IMPORTANT: You must NOT use cable staples to secure this kind of cable as you'll almost certainly pinch and damage it!**

WIRING

RJ45 modular socket

Supply an **unfiltered** wire pair to the BLUE terminals on this module.
(If you're just plugging the cable into the RJ45/ADSL socket on a BT ADSL adaptor this is the BLUE pair)

RJ11 modular socket

Supply an **unfiltered** wire pair to terminals 3 and 4 on this module.
(If you're just plugging the cable into the RJ45/ADSL socket on a BT ADSL adaptor this is the BLUE pair)

“BT” telephone socket (631A) module

Supply a **filtered** wire pair to terminals 2 and 5 on this module. Connect the ringer wire to terminal 3.

LJ4F filtered linebox

Supply an **unfiltered** wire pair to terminals 2 and 5 on this unit.

NOTES

If you're carrying **BOTH** your ADSL signal (unfiltered) **AND** your voice signal (filtered) in the same cable, simply refer to the extension wiring connections at the master socket's faceplate to determine which pair carries unfiltered ADSL signal, and which pair carries your voice signal. For example, if you've got GREEN connected to either 2/5 on an unfiltered standard NTE5 faceplate, or to A/B on our modified version of the BT ADSL Adaptor faceplate, then GREEN is your man for any of the above sockets asking for an **unfiltered** connection! Simple, eh?

We would suggest that in the case of a dual-use cabling scenario such as this that you use the BLUE pair for your voice signal to the BT-style module (always pins 2 and 5) thus maintaining the practiced default colours for the voice wiring, and that you use a spare pair, such as the GREEN pair, to carry the ADSL signal. Remember that regardless of the wire pair colour chosen to carry unfiltered ADSL signal, those should still be connected to the BLUE terminals on the RJ45 module, or 3/4 on the RJ11.

Carrying both filtered and unfiltered instances of your telephone line in the same cable is very much a work-around, and not strictly catered for in the wiring standard, thus it's up to you to make your final decision on how to go about it. We've found the above suggested method to be the most consistent with standard telephone wiring practices.

CONTACT

The above should cater for all installations of ADSL extensions. If you're unsure about anything, please ask somebody knowledgeable on such matters. You can of course send an e-mail to adsl@clarity.it if you should have any uncertainty about your wiring and we'll do our best to help.

If you haven't already, you might find reading the various articles published at www.clarity.it/telecoms to be enlightening and helpful.

www.clarity.it



CLARITY/BT ADSL EXTENSION KITS & Modular Sockets

INSTALLATION & WIRING GUIDE

Parts of this guide addressing cabling guidelines are based on the installation instructions originally provided with the genuine BT ADSL Extension Kits originally sold retail by Clarity and we strongly advise that you follow that advice when fitting your cabling here.