

## House kit Installation

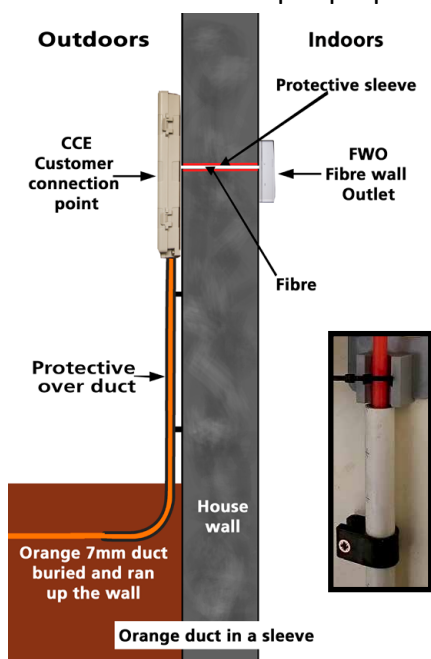
(This is the preferred method for installing the fibre. If a different installation method is required, please contact [install@b4rn.org](mailto:install@b4rn.org))

Getting your property ready to be connected to the B4RN network is your responsibility, but we'll supply the materials and any guidance you might need. To finance this project, we're asking everyone to apply for a government Gigabit Voucher. This contributes to the funds to build the network, and also gives you a dig grant of £150. This grant is paid after you confirm a live connection and can be used in these 3 ways

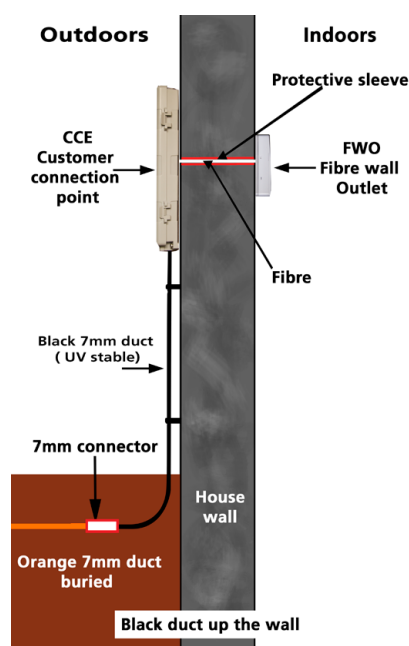
1. You decide to dig the duct in and install the fibre boxes yourself or with their neighbours. The grant will be paid directly to you by B4RN.
2. You ask a B4AV volunteer to do the work. The grant is paid direct to the B4AV community group by B4RN.
3. You book an approved contractor and negotiate a price and pay them for the work. The grant will be paid to you by B4RN. You will be responsible for any additional costs above the grant value. *A list of recommended contractors is included at the end of this guide.*

Vouchers are issued per property and must be requested by you. please see;

<https://b4rn.org.uk/postcode-checker/> for further information.



House install method one



House install method two

## Crossing your land to the house wall

Where you can cross the garden depends on where the fibre meets the boundary of the property, as well as the location of the router. **Don't forget, the orange pipe's inner surface must be kept clean and dry, so keep the end covered with a push-on cap or some tape.**

You'll need to bury the pipe somewhere it won't get damaged by things like gardening or traffic – aim to dig a trench that is approximately 30cm deep.

Consider running the pipe in the 'shadow' of a boundary wall or fence, where it'll be less likely to be disturbed. Another good choice is to follow a gravel path; rake back the gravel, dig a trench, install the pipe, then refill the trench (having removed any rocks that could damage the pipe) and replace the gravel. Always be mindful of what traffic crosses the pipe – a footpath will be fine, but a gravel drive for vehicles will need the pipe to be deeper or have additional protection.

Digging a slit trench across the lawn seems messy, but once the turf has recovered, it will be in a safe spot that's unlikely to be disturbed. Whatever the route, it's a good idea to protect the pipe using some water pipe, or offcuts of B4RN 16mm duct (which we can supply). Remember to keep a drawing of the route for future reference.



### House Install Method One

Feed the orange pipe into an outer duct, before it comes out of the ground – electric conduit works well. Then route this up to the outside wall box, taking care to use gently curving bends. Avoid using a hammer to fix the pipe to the wall, as you may crush it.

### House Install Method Two

Connect the orange pipe to 7 mm black pipe, before routing it up the wall. As the orange pipe is not UV stable, it must be joined below the surface using a standard push-fit connector. Cut the pipe square and make sure the joints are below ground level and away from curves in the pipe.

## House Installation



### What you will need

- Fibre Wall Outlet (FWO) and Customer Connection Enclosure (CCE).
- Masonry drills, spirit level, screwdriver and a spade.
- Suitable drill bits, in size and length, to suit supplied screws
- Protective sleeve (copper pipe, plastic tube).
- Wall retaining clips.
- Suitable sealant, filler/cement.
- Personal protective equipment (PPE).

### Inside the property- Fibre Wall Outlet (FWO) installation

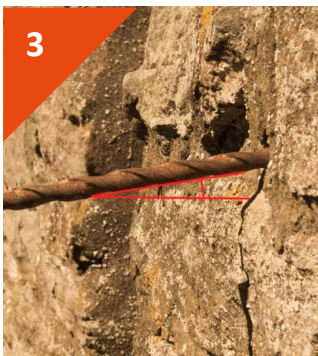


Inside the property – Fibre Wall Outlet (FWO) installation

The white FWO connects to the router and comes with fibre optic cable pre-attached. Feed this cable through a hole drilled in the exterior wall to the grey connection box outside. Ideally, the two boxes will be 'back to back'.

**Install the FWO without opening.** The fibre inside is delicate and easily broken. Protect the cable with a short length of 5-7mm plastic pipe or copper pipe. Taping this pipe to some rigid wire or the drill bit to pull it through the hole. Feeding the fibre cable through this pipe will then be easy.

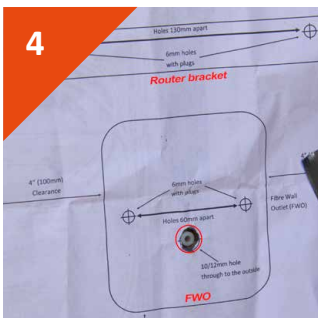
### Drilling House Walls



Before drilling the wall, make sure to check for electrical cables, pipes and battens.

Drilling from inside to outside can cause a small lump of render or stone to chip off the wall. Similarly, drilling from outside to in can damage the interior finish. However, in both cases, any marks may be covered by the boxes.

Drill slowly and switch off 'hammer' mode for the last bit of drilling – avoid using any excessive force. Whichever direction you choose to drill, ensure there is a slight downward slope so moisture will not run into the house. Once finished, seal the hole with suitable building sealant to stop water or draughts getting in.



Use the template to mark the position of the 10mm or 12mm hole to the outside for the fibre entry. Make sure there is 75mm (3inch) of clearance to the skirting or any other obstruction.



Using the template mark and drill the two fixing holes for the FWO and (if required) the two for the router mounting bracket. Note: This mounting bracket comes with the router.



Install the two yellow plugs and screw in the 2 mounting screws (smaller screws in the pack) into the plugs to within 3mm of the surface. Feed the fibre cable through to the outside.



Fix the FWO in place by locating holes on the screws.  
*Some people find it easier to fix the FWO with heavy duty double sided sticky pads instead of plugs and screws.*



8 and rotating to lock in place. Adjust the screws to get a snug fit



9 The router will generally be wall-mounted above the FWO. However, if you need to put the router somewhere else, a longer fibre cables can be provided at an extra cost.

## Outside the property - Customer Connection Point ( CCE ) Installation



10 The grey CCE box is locked with a screw and two press clips.



11 Drill out the central hole in the CCE, feed through the fibre cable and fix with the screws provided.



12 It's easier to use the provided template to mark the three screw positions – position this over the hole in the wall.



13 Feed the fibre cable through and fix with the screws provided. On uneven walls, pack out the gaps using offcuts of 16mm duct.



14 Fix the fibre cable into the guide by the central hole with a cable tie.



15 Bring the black 7mm duct into the bottom right entry point. Fix with a foam seal (provided) and secure in place with a cable tie.



16 Seal the other entry points with the other foam pieces.

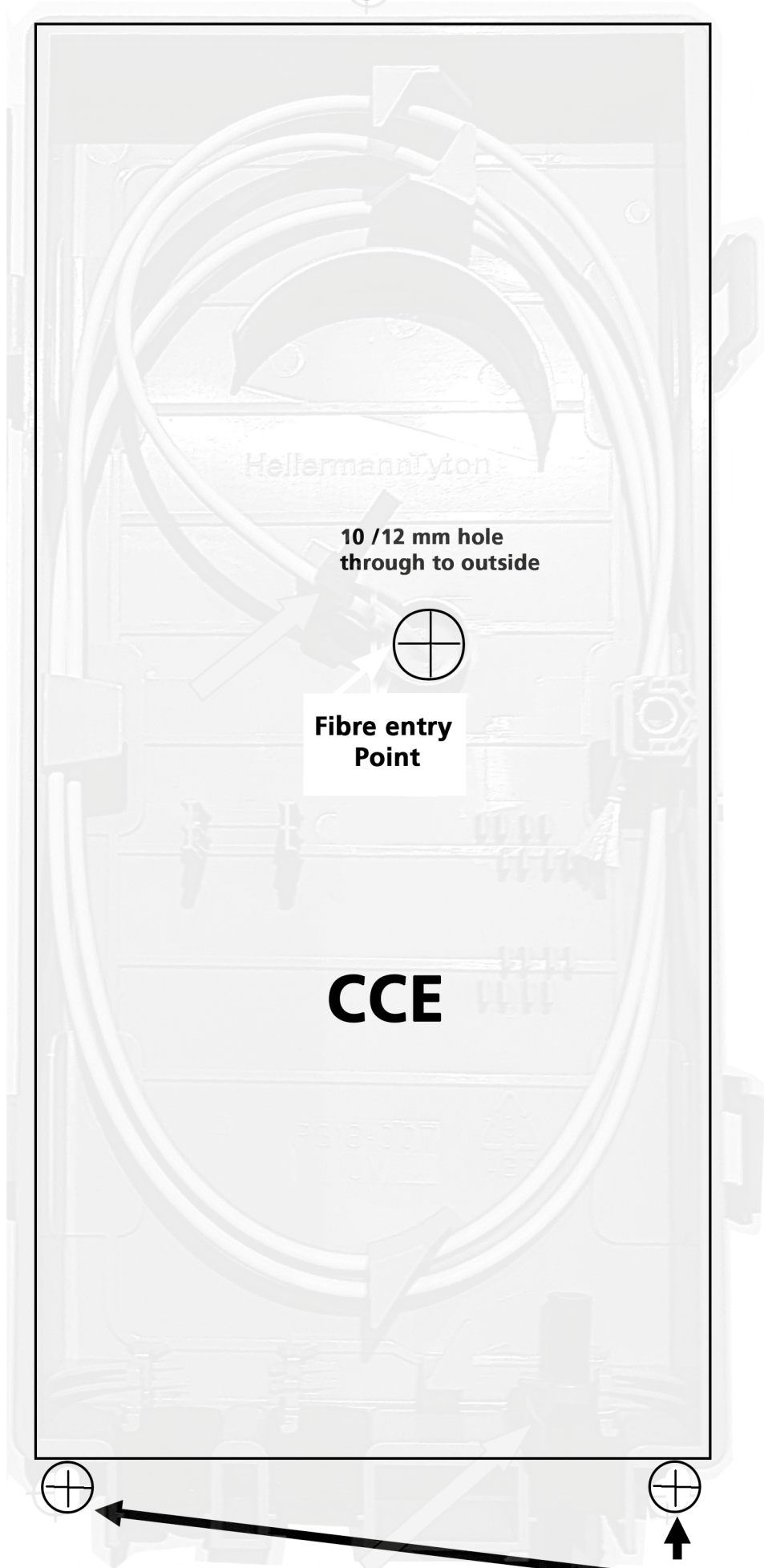


17 Coil up the excess fibre cable around the guides provided.





**Scw points 6mm**



HellermannTyton

10 / 12 mm hole  
through to outside

Fibre entry  
Point

**CCE**

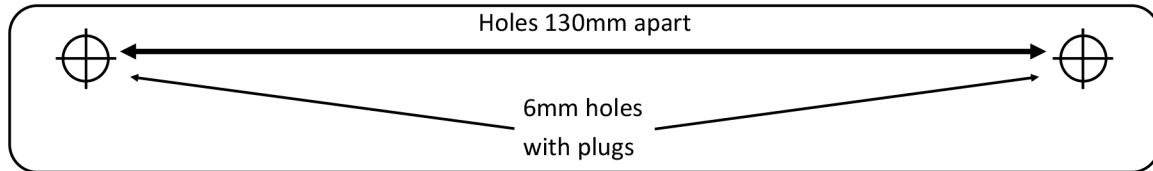
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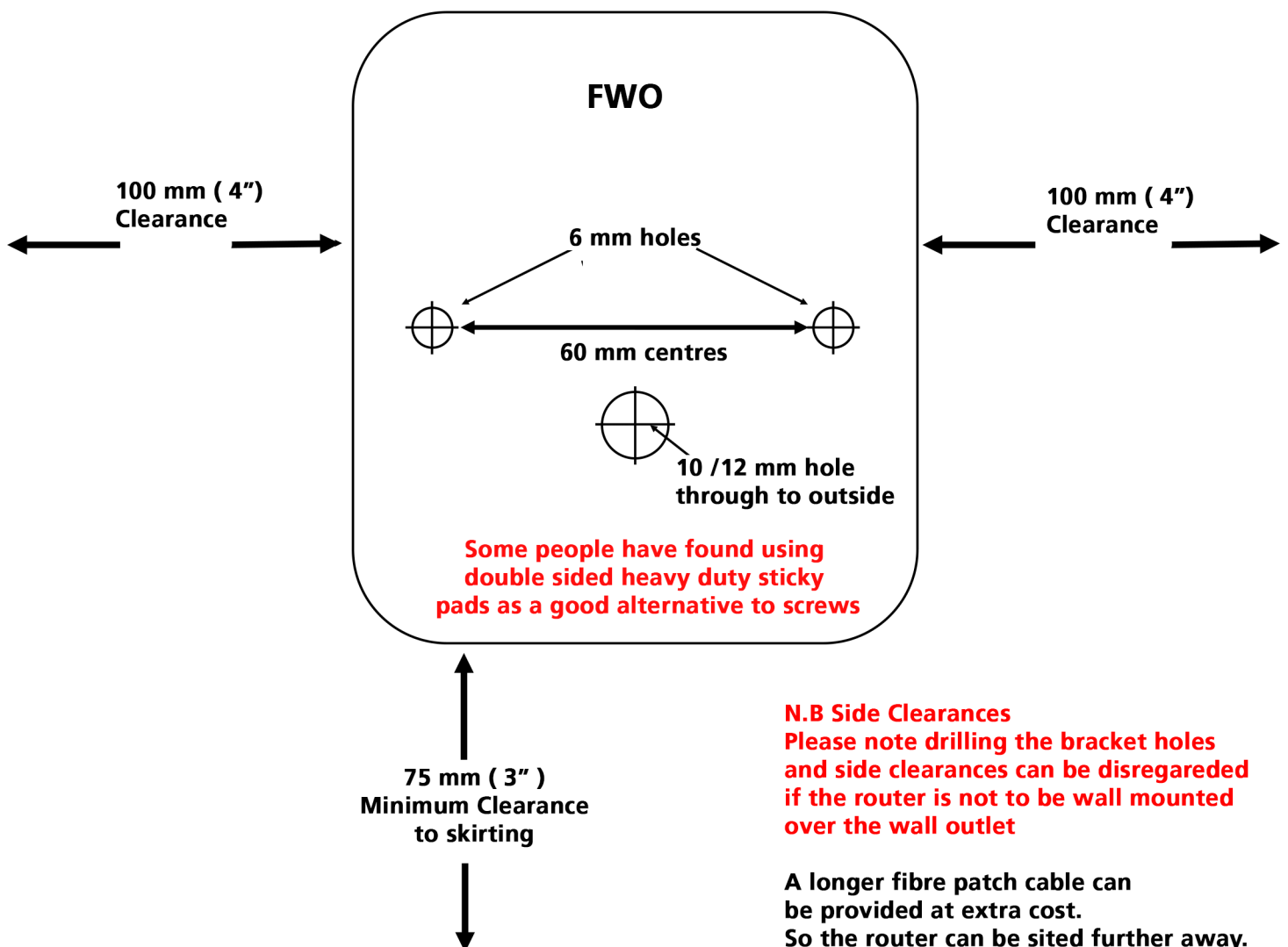
**Scw points 6mm**

## Interior Fibre Wall Outlet (FWO) Template

(Note: Clearances not to scale)



**This bracket is supplied with the router**



Once the house kit is installed, you're ready for the fibre blowing and splicing teams to fit your router and connect you to the network. We don't require access to your home to do this, but if you let; [install@b4av.org](mailto:install@b4av.org) know when the House Kit installation is complete, it will help the volunteers connect you as quickly as possible.

Now you have an idea of what is required contact us with the following details so we can supply the materials.

The standard house kit comes with an internal and external box, one pipe connector, 1 meter of black 7mm pipe for up the wall.

We normally leave a coil of orange pipe outside your property, if you can't find this, please contact us. This should reach your property and there should be enough left over to push through the wall to protect the fibre.

Please email your requirements

1. One standard house kit
2. Extra orange 7mm pipe in metres
3. Extra black 7mm plastic pipe to run up the wall in metres
4. Protective pipe in metres
5. Your Details - Name, Telephone, Address

Also this information when you would like your connection go live

- A. as soon as possible    B. at the end of my current contract    date if known  
C. A future date    D. A connection more than a year away ( in this case we will not blow fibre )

Description of entry point( ie south wall or front of house, near front door) please keep entry points to ground floor. A drawing or photograph is useful.

Importantly have you registered for a voucher If No please register before returning

*Email this information to [install@b4av.org](mailto:install@b4av.org)*

If you wish to pay someone to do the work, contact the following for a quote.

Complete installation

Jona Aal Email <a href="mailto:jona.aal@gmail.com">jona.aal@gmail.com</a> Mob 07940 731 375 Tel 01434 345 620	Malcolm Aitchison High Forest Building Services <a href="mailto:malcolm.aitchison@googlemail.com">malcolm.aitchison@googlemail.com</a> Mob 0785 2637 906
R Ainsley-Raffel Contracting Email: <a href="mailto:wdat2012@gmail.com">wdat2012@gmail.com</a> Mob 07421 001 908	Trevor Wilkinson Construction EMAIL: <a href="mailto:t.e.wilkinson@btinternet.com">t.e.wilkinson@btinternet.com</a> Mob: 07710 898 212

Ground Works only

P Dodd Services Email <a href="mailto:peterdodd fencing@gmail.com">peterdodd fencing@gmail.com</a> Office:01434 688459 Mob: 07711 353 383	R Robson Contracting Email <a href="mailto:r.robson@hotmail.com">r.robson@hotmail.com</a> Mob 07527 375 464
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