Torc Ground Anchor – Series II – Expanding Bolts Kit

Fitting Instructions for Brick Walls, Mediocre Concrete etc

(11-Aug-16)

Important Requirements

Caution: Be careful that you do not drop the anchor on your foot or allow the shackle to fall on a finger!

Any security installation is only as strong as its weakest link:

The Torc Ground Anchor must be used in conjunction with an appropriately fitted Sold Secure-approved lock and chain.

The integrity of the anchor is dependent upon the quality of the surface to which it is fitted. Concrete is generally stronger than brick, and brick is generally stronger than block. This *Brick* fitting kit can also be used for fitting to concrete floors and other situations where the quality of the concrete may not be sufficient for some other approaches. These instructions use the term *Brick Wall* to refer to the substrate, even though it may not actually be made of brick, or a wall!

The Torc Ground Anchor should **not** be fitted to a block wall or to a brick wall within 2.0 metres (6 feet) of its top edge – do not fit it to a low garden wall! Similarly, you should choose a location that is at least 0.3 metres (1 foot) from the nearest end of the wall – don't fit it close to an external corner. This fitting kit includes expanding bolts but these are liable to split the bricks apart if there is insufficient weight above the fixing or if it is too close to the edge. If the wall can be knocked over you have no security!

The minimum wall thickness recommended is 100mm. You should also avoid walls with a plaster/plasterboard covering – this product is designed to be fixed directly to the bricks. Coverings over the bricks create a vulnerability that could be exploited by a criminal.

Separate fitting kits are available for installation on concrete floors and other situations.

If you are unsure, please contact your supplier for advice.

What Tools Will I Need?

The fitting kit includes all parts that are required. The only tools you will require for wall mounting are:

- An electric hammer drill with at least a 12mm chuck capacity. The fixings require holes to be drilled 16mm in diameter, so a powerful drill will make this easier.
- A medium sized hammer (a 4lb/2kg club hammer is fine)
- Eye protection – goggles or a visor should be worn
- A pencil or felt pen or similar for marking holes to drill
- Optionally, construction adhesive such as *PinkGrip, Liquid Nails, Serious Stuff* or similar
- Optionally, a torque wrench and ¼" AF socket

How Long Should I Allow to Fit an Anchor to a Brick Wall etc?

30-60 minutes as a guideline. Be careful and don't rush.

What Parts Should be in a Brick Wall Fitting Kit?

The Torc anchor expanding bolts/Brick Wall fitting kit contains:

- M10 x 70mm long high tensile (10.9-rated) hex socket countersunk bolts, fully threaded (qty. 4)
- M10 shield anchors (qty. 4)
- Hardened steel ball bearings to suit bolts (qty. 4)
- 6mm hex wrench (*Allen* key)
- 6mm AF x ¼" Hex Driver bit to suit bolts
- M8 x 50mm hex head bolt (to be used as a punch)
- Length of flexible PVC hose
- Masonry hammer drill bit 16mm straight shank (SDS-Plus shank also available)
- These instructions

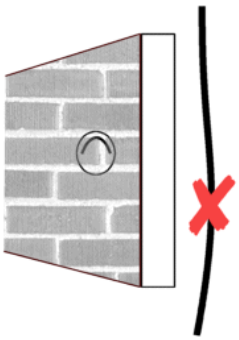
How to Fit a Torc Ground Anchor to a Brick Wall

The Torc ground anchor is designed to be fitted by any competent DIY enthusiast.

You should read through these instructions in their entirety *before starting to fit an anchor*. If you are not confident of your ability, you should ask an experienced person or professional builder to help.

In the following instructions, the term *bike* is used to mean any valuable item that you wish to secure with your ground anchor.

1. **Check the contents of the Fitting Kit:** Ensure the fitting kit is complete (the items are listed above). Contact your supplier if there are any parts missing or damaged.



2. **Choose a good location:** Be careful to choose an appropriate location for fitting your anchor, clear of any pipes, cables etc (the use of a metal detector or other pipe/cable detector is recommended if you are unsure). The anchor is designed for permanent installation so take time to ensure the chosen position will allow you to secure your motorbike with the chain etc that you have chosen. Putting the anchor near a corner or other location such that the bike restricts access to the anchor can make it a lot harder for a criminal to attack, as can keeping chains and locks off the floor. We recommend that you lean the anchor against the wall and check that you can get the bike into position and then ensure you can actually fit the chain & lock. Time spent now checking the intended location is much better than realising later that you can't get the bike within the range of your chain!

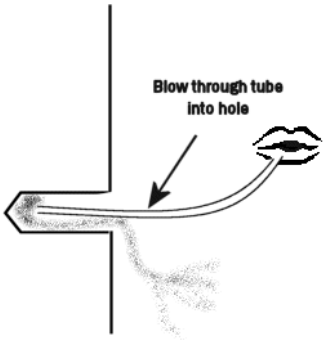
   Remember that any anchor is only as good as the substrate it is fitted to.

3. **Mark the holes to drill:** The fixing holes are at the corners of a rectangle measuring 100mm x 60mm. Using the anchor itself, choose the precise combination of hole positions relative to the mortar joints in the brickwork if you are fitting it to a wall. The short end of a brick is usually strong and is preferable to the *frog* (the indented long side, usually at the bottom of the brick when it is laid). You can also put one or more holes into mortar joints between the bricks. Try to choose a position and orientation of the four holes so that the combination is as solid as possible. Then *carefully* mark the holes to drill using a pencil or felt pen, for example.
   Check carefully that all four holes are marked at the centres of the bolt holes in the anchor. Accuracy is important here.

4. Move the anchor out of the way and then, using eye protection, good ventilation and a hammer drill, carefully **drill the holes** to 70mm depth. Be careful to avoid the drill drifting sideways as you drill and keep it perpendicular to the wall. The drill bit supplied is marked with tape at the right depth – the tape should just touch the surface of the wall as you finish drilling each hole – **don't drill too deep or you may burst through the other side of the wall!** Take care not to breathe the dust. Using a vacuum cleaner and crevice tool near the drill may help to suck up the dust during the drilling process – take care however you do it!

   If you are drilling extremely tough bricks etc or if the drill is difficult to keep in position, you may find it helps to drill a pilot hole of e.g. 5mm diameter first, if you have a suitable drill bit available (only a 16mm drill bit is included in the kit), and then drill the final size holes.

5. **Clean dust from inside the holes:** It is very important that the holes are as clean as possible if the anchor is to achieve maximum strength. The drill will often leave a lot of dust at the bottom of the hole so it is a good idea to spin the drill up and down to *screw* dust out of each hole.

   Then, still wearing eye protection and taking care to avoid breathing the dust, use the plastic tube provided to blow any remaining dust out of each hole. Place one end of the tube in your mouth and, whilst blowing, move the other end of the tube up and down in each hole. Keep doing this until the holes are clean and no more dust blows out. This stage is easier if you have a source of compressed air or a vacuum cleaner to suck the dust up (a crevice tool and the plastic tube can work well), but take care to protect your eyes and avoid breathing the dust, however you clean the holes.

6. **Check that the holes are clean and deep enough:** Slide one of the bolts, without the *shield* (i.e. just the bare bolt without the expanding sleeve), into each hole in turn and check that it will sit with the underside of the countersunk head resting on the surrounding wall. It is surprising how easily compacted dust can remain at the bottom of the holes – if the holes are not clear or simply not deep enough, repeat the relevant steps above to achieve the correct depth and holes clear of dust.

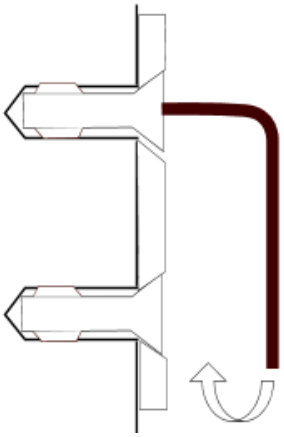
7. **Put the bolts through the anchor and loosely screw a *shield* (i.e. an expanding sleeve) onto each of them. Do this away from the wall.**

8. **Optionally, add some adhesive.** If you wish to increase the grip of the shields on the wall, you can squirt a little construction adhesive into the drilled holes. (Check hole alignment first, as below.) Don't apply too much or it will obstruct the shields and make a mess! Follow the instructions on the product and beware getting it on your hands.

9. **Hold the D-shaped shackle against the wall and put the anchor in position over it so that the shackle is held in position by the cut-outs in the anchor base plate**, and carefully sliding the shield assemblies into the drilled holes. You may need to jiggle the anchor around to get all four shields to sit home in their holes.

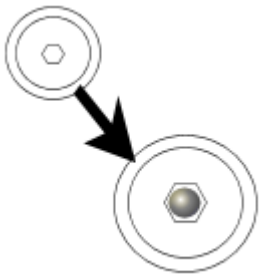
   DO NOT FORGET TO PUT THE SHACKLE AGAINST THE WALL FIRST!!!

   Ensure that each bolt is fully home against the countersink in the anchor and the anchor base plate is snug against the wall. Small alignment errors can be corrected by re-drilling; greater errors need you to start again or seek advice from your supplier.



10. **Tighten the bolts:** Using the L-shaped hex wrench (*Allen* key) provided, tighten all four bolts evenly until they are all tight. There is no need to use any extra leverage than the arm of the hex wrench, but the bolts do need to be tight. If you have access to a torque wrench and ¼" AF socket, you can use the small hex driver bit in each bolt head to tighten the bolts to 40Nm/30lb-ft.

11. **Check all four bolts are fully home:** Once you have tightened all four bolts, check that they are all fully home and in contact with the base plate of the ground anchor. The ground anchor should now be held tightly against the wall.



12. **Insert the ball bearings:** Hammer one of the ball bearings supplied into the hexagonal head of each bolt. You may find the extra M8 x 50mm bolt is useful as a *punch* to reach the bolt heads – the end of the bolt has a slight dimple that will locate on the ball bearing. The ball bearings are a very tight fit so it will take a few hammer blows to drive them into the bolt heads. Be careful not to hit your fingers! ☺ It can be a good idea to re-check the tightness of each bolt just before you insert its ball bearing, just in case the hammering on previous bolts has caused any loosening of the grip. Once all four fixings are finished, give the anchor a good tug by hand just to double-check the firmness of the fixing. Contact your supplier if you have any problems.

13. **The installation is complete. Well done ☺**

Using a Torc Ground Anchor

A properly installed anchor should give you many years of trouble-free service.

Remember that you must use an appropriately fitted Sold Secure-approved lock and chain to be confident in your security provisions.

No maintenance is normally required. Do not use any abrasives for cleaning.

Fixing Queries

I only have a Plastered Wall Available?

Although longer bolts would compensate for the thickness of the plaster, this is not recommended as a criminal could attack the plaster and thereby gain access to the bolts. The best solution is to cut away the plaster so that the bare bricks are exposed and to then mount the anchor directly on them.

What about Cavity Walls?

The anchor is fitted to a single skin of brickwork so it should be fine with a cavity wall.

I can't get the bolts to tighten?

If you are struggling to tighten the bolts it may be because the brick is splitting. If so, you should try again with a wall that is in better condition. If there is no alternative, a construction adhesive may help the shields to grip in the holes. Follow the instructions on the product.

My bricks etc appear very soft or crumbly?

Bricks that are in poor condition are not suitable for fitting a ground anchor. You should find an alternative location.