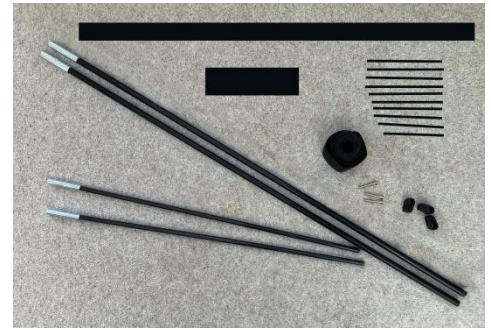


FlexEV User Guide

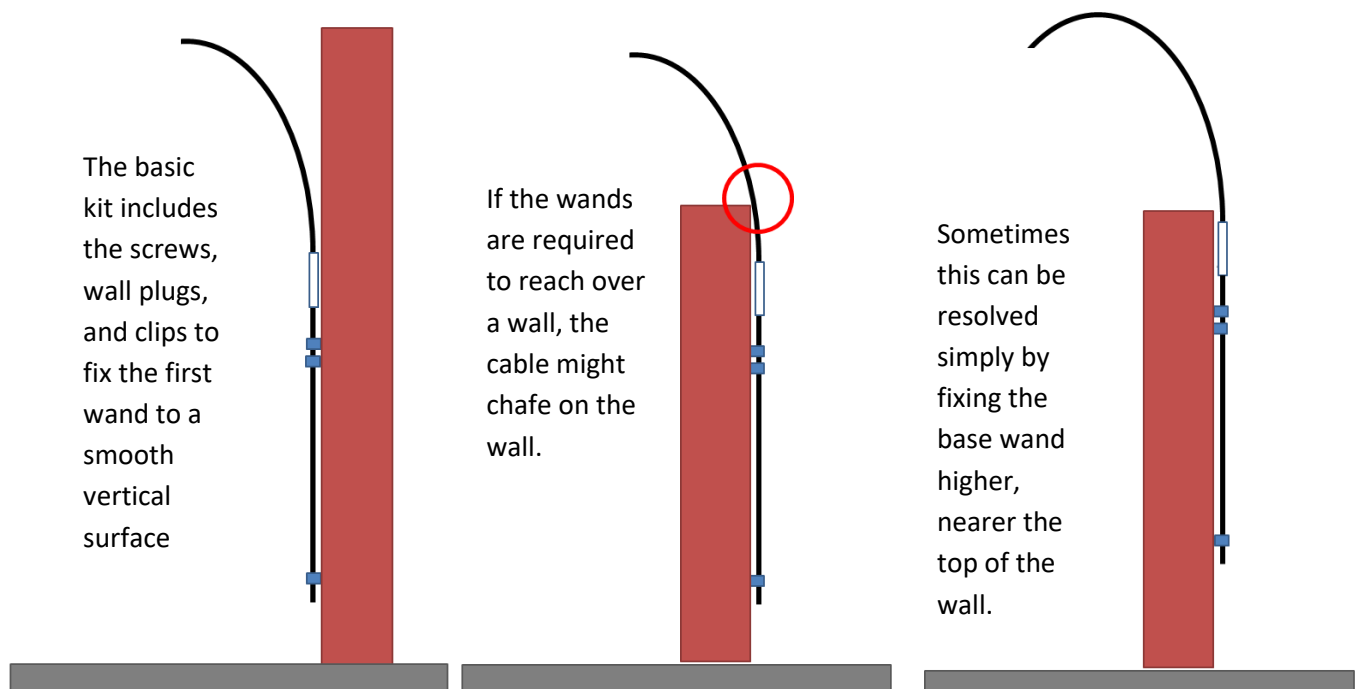
Each user must configure these parts appropriately for their particular location. Once the wands are assembled, it is usually necessary to adjust the amount of cable extending beyond the wands to suit the application. The Velcro wraps detailed below facilitate several adjustments.

Once you're happy with the lengths, consider whether you want the wands and cable to be easily dismantled, or whether you will keep the assembly all in one piece? (Excluding the fixed base wand, it is 2.2m long).



If you want ease of disassembly, stay with the Velcro wraps. However, a spiral cable wrap gives a much neater appearance. Consider the D-line product: B&Q part no. 1402467 or Screwfix part no. 115CX. You can then dispense with the Velcro wraps and the self-adhesive Velcro strip.

Mounting Options



Alternatively, a timber batten can be used to hold the base wand 75-100mm offset from the wall.

If a larger offset is needed, one or two of these TV aerial wall mounting brackets can be used.

The brackets are available in two sizes and are supplied with fixing screws and 10mm wall plugs. Adding M10 nuts as spacers allows the supplied U bolts to tighten down on the wand.



The timber and TV brackets are **not included** in the kit, but are widely available:-

Component	Screwfix	Toolstation	B&Q
6" Bracket (100mm offset)	96275 £10.89	69098 £10,89	5028422002131 £9.75
9" Bracket (175mm offset)	90874 £11.85	N/A	5028422002124 £12.50
M10 Nuts	2438V £2.69 (10 pack)	34238 £3.09 (50 pack)	3663602744573 £3.10 (20 pack)



- Using the supplied screws and clips,** fit two pipe clips in opposite directions to one of the thick wands as shown. Position the top of the wand about 1 metre above ground level, and drill the wood or masonry using the clips as a guide.
- Check that the wand is vertical, and then fix the third clip about 10 cm above the bottom of the wand.
- (It is important to have two clips together at the top for additional strength, and none in the middle, so the wand can flex a little.)

Fixing to an existing circular post. The first wand could be fixed to a circular post with two long worm-drive hose clips such as are available from Amazon or [B&Q](#) etc.

(A small spacer between the post and the wand might be helpful creating space for fingers to grip the next wand during insertion.)



4. Use a new post

If you don't have a pre-existing gatepost, a pole, wall, or fence, you may need to erect a new post for your base wand.



[B&Q](#) (P No.5013053213889) and [Wickes](#) (P No. 543222) sell 80mm round stakes.
(But not click and collect from every store)



5. A new spiked post is most easily driven into the ground with a 'post rammer'. These are available from Screwfix etc but cost about £40. A big hammer or large stone will also do the job, but take care not to splinter the top of the post.






6. As an alternative, Toolstation and B&Q offer a range of bases for 75mm square posts, which can be easier to install than driving a stake directly into the ground.



And B&Q offer a range of posts of the right size:-

75mm postHome delivery - not click and collect



Green UC3u Treated Wooden Fence Post (L)1000mm (W)75mm (T)75mm - Above Ground Wood Post	Green Treated Wooden Fence Post UC3u 75mm x 75mm x 1200mm Above Ground Timber Post	Brown Treated Wooden Fence Post UC3u 75mm x 75mm x 1200mm Above Ground Timber Post
£13	£16	£19
✓ Available for Home Delivery	✓ Available for Home Delivery	✓ Available for Home Delivery
✗ Not available for Click + Collect	✗ Not available for Click + Collect	✗ Not available for Click + Collect
✗ Not available in stores	✗ Not available in stores	✗ Not available in stores

7. Assembling the Wands and Cable.

If you are using the spiral wrap method go directly to [point 26](#).

8. Cut the longer 88cm piece of 30mm wide double-sided Velcro wrap into eight pieces 11cm long, (Cut it into equal 44cm halves; halve them to 22cm, then halve them again to 11cm each.)
9. Cut the shorter 33cm long piece 30mm wide double-sided Velcro wrap into two 16.5cm pieces.
10. Mark the 50mm wide self-adhesive Velcro tape at these points (40, 70, 100, 130, 166mm). Label the sections ABCDE, and cut to create these lengths of tape:- 40, 30, 30, 30, 36mm.



11. Take piece A, and wrap it around the second long wand, just inboard of the metal ferrule.
12. Push the white nylon reducer as far as possible into the ferrule of the same long wand. (No more than 5mm should remain exposed.)



13. Wrap piece B of Velcro around a short wand 45mm from the plain end (the end without a metal ferrule).
14. Insert the same shorter wand into the white reducer, and push it firmly home. There should be no more than 5mm of exposed wand between the white reducer and the Velcro wrap.



15. Wrap Velcro piece C around the same short wand just inboard of metal ferrule (as in point 11).
16. Insert the second short wand into the first one, and wrap Velcro piece D around the wand so that it just touches the ferrule of the first short wand – but doesn't stick to the metal ferrule.
17. Wrap Velcro piece E around the metal ferrule of this second short wand. This helps secure the end of the cable to the tip of the wands – see later.
18. Take the 20mm wide self-adhesive Velcro and cut it into 3 pieces 38mm long, and 4 pieces 30mm long.
19. With the three wands assembled as described above, starting at the thick end, fix a 20mm wide Velcro tape every 28cm or 11". (Use the 3 long pieces on the thick wand).



20. Mark the charging cable with coloured tape about 2.5metres from the car plug, and then lay the cable out in a straight line on the ground.

21. Lay the assembled wands down beside the cable so that the small end aligns with your 2.5m mark on the cable.



22. Use the 30mm wide wraps to attach the cable to the tip of the wands, and then over each of the 20mm Velcro tapes at 28cm intervals. Choose the side of the wrap that sticks to the previously fixed Velcro tape. (This stops the Velcro wraps slipping downhill when the assembly is lifted up.)

23. Finally, use 16.5cm long pieces of 30mm Velcro wrap, to link the cuffs, keeping the top wands together.



Note.

By reaching over the metal ferrule, no reliance is placed on the adhesive holding the ferrule to the wand.

24. Gathering the plug in your hand to stop it flailing around, lift the assembly into a vertical position, and drop the large wand into the metal ferrule of the first wand previously fixed in place. Make sure it goes in fully, as this is the most highly loaded part of the assembly.

25. Check that the cable can reach the car without bending the top wand below horizontal and adjust the arrangement as necessary. You can have more than 2.5 metres of cable extending beyond the wands if appropriate.



Spiral Wrap Method

26. Push the white nylon reducer as far as possible into the ferrule of the second long wand. (No more than 5mm should remain exposed.)
27. Push the first short wand firmly into the reducer as far as possible, and connect the second short wand to the first. (Some people like to tape the wands together, reaching over both sides of the metal ferrule, so the wands don't move apart while wrapping - even if the adhesive holding the ferrule weakens.)
28. Mark the charging cable with coloured tape about 2.5metres from the car plug, (or any other distance you have decided is needed) and then lay the cable out in a straight line on the ground.
29. Lay the assembled wands down beside the cable so that the small end aligns with your tape mark on the cable.
30. Use a small piece of tape to fix the cable to the end of the assembled wands – just so it doesn't move while wrapping.
31. Starting at the thin end of the wands wrap the cable and the wands together.



32. It may help to bundle the excess wrap with an elastic band so you can more easily move it round and round the cable and wands without getting in a tangle.
33. Take care that the rods don't move apart while you are wrapping them.
34. Where the wrapping passes the tip of the thin wands, use two cable ties to bind the cable and wands together, to take the weight of the free end of the cable in service.

35. Gathering the plug in your hand to stop it flailing around, lift the assembly into a vertical position, and drop the large wand into the metal ferrule of the first wand previously fixed in place. Make sure it goes in fully, as this is the most highly loaded part of the assembly.
36. Check that the cable can reach the car without bending the top wand below horizontal, and adjust the arrangement as necessary. You can have more than 2.5 metres of cable extending beyond the wands if appropriate.



Tidying Up

37. The 'pistol grip' design of charging plug forces the cable outwards, and can create an undesirable loop when you are trying to keep the cable out of the way.
38. This bungee toggle (part of a set, Screwfix Part No 182XT) usefully holds the cable in a better alignment, taking up slack and directing the cable more vertically.



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