# **UMBRELLA INSTALLATION**

## **GROUNDWORK GUIDELINES**

- Measure and mark out the ground with chalk to denote the edges, corners and most importantly
  the exact centre of the umbrella mast. Be aware that the edge of the umbrella is between
  2300mm and 2400mm from the ground to the underside, depending on the model being fitted.
  It is vital to ensure there is a minimum 250mm gap between the edge of the umbrella and any
  building, lamp-post, trees or adjacent umbrellas.
  - If there are any further obstructions such as drains, manhole covers too close to the mast, the layout may have to be changed and re-positioned.
  - If gutters are to be used, either between umbrellas or to a building, an optimum gap of 250mm is recommended. However there is a tolerance of 50mm either way.
  - If the umbrella is close to buildings and there are doors, which open outwards, check the distance from the ground to the top of the door. The umbrellas can be raised up by a maximum of 200mm. If this still cannot be achieved, the umbrella will have to be moved further away to enable the doors to open.
- Once the centre point has been carefully decided and marked accordingly, proceed to remove the
  paving / decking as applicable. We cannot guarantee that lifting slabs will not cause damage to
  them and we cannot take responsibility for this but the floor is to be laid back down in the best
  possible way.
  - Excavate a hole approximately 800mm x 800mm x 800mm (or larger for the bigger umbrellas over 4m) deep for the umbrella, in which to set the in-ground sleeve into poured concrete. Obviously, if solid concrete is found, this creates an excellent 'key' and it is not necessary to excavate so large.
- 3. At this point it will be essential to find out the approximate route of the cable, dictated by the distribution board within the building. (This only applies to umbrellas that require heating or lighting).

If an electrician is present, they should determine the 'run' of the cable. If an electrician is not present proceed as follows:

Dig a trench approximately 350mm deep from the hole to the main building wall which is nearest to the consumer unit. Run the relevant swa cable (5 core 4mm is recommended for H&L) from the hole to the building. Ensure that you leave sufficient cable to make the connection to the fuse-board. Leave approximately 500mm of cable protruding from the hole in the top of in-ground sleeve.

## Do not damage any cable insulation within the in-ground sleeve or along the route.

Push this spare length back into the in-ground sleeve if possible to prevent trip hazard or place a cone or equivalent over the sleeves whilst awaiting for the umbrella to arrive.

- 4. Cast the in-ground sleeve into the concrete, with the square top with bolt holes pointing upwards, in such a way that the top of the plate is flush (or 5mm below if using a cover plate) with the finished floor level.
  - It is very important the flat plate must be 100% level all ways and M12 bolts are used to secure the upper sleeve to the ground sleeve. Please not that the upper sleeve will arrive with the umbrella itself and does not arrive with the ground sleeve.

5. Care should be taken not to disturb the in-ground sleeves whilst setting.

Re-install any blocks / paving around the in-ground sleeve, obviously keeping the finished surface in line with the top plate.

Back fill all trenches ensuring a safety tape (if conduit is not used) is laid on top to signify a cable and re-instate the paving etc.

6. It will now be necessary to wait approximately 7 days for the concrete to set before returning to site to erect the umbrella.

The end of the cables against the wall of the building should have a gland fitted and placed into a waterproof junction box by the appointed electrician. The electrician will then carry out the final connections inside the building.

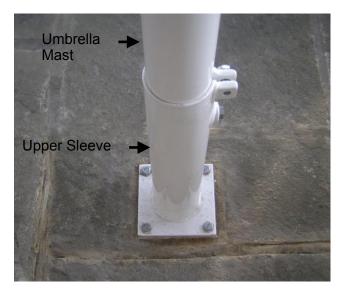
- 7. Each umbrella should have its own independent switches for heating and lighting so that each function can be operated individually. Please also ensure that each umbrella can be easily isolated if needed. We recommend a minimum of 32amp per umbrella for heating and a 3amp supply for lighting. We also suggest the use of rotary isolators for each umbrella. We also advise type c breakers should be used due to the initial power surge when turning heaters on.
- 8. Insert the end of the umbrella mast into the upper sleeve, position the upper sleeve next to the ground sleeve or spreader plate and connect any cables required, then carefully stand the umbrella up and secure using the 4 x M12 bolts and then position your umbrella and then tighten the neck bolts of the upper sleeve. You can now use your umbrella!

## Note:

Whilst considerable care has been taken to produce these instructions, we cannot be responsible in any way for claims or issues arising from work carried out in accordance with these instructions, however caused. This is purely a recommended guide. The contractor/customer is responsible to detect and avoid any pipes or cables below ground and to use the correct and appropriate materials.

If you require any further information or assistance, please do not hesitate to contact us





#### PORTABLE BASE GUIDELINES

- **1.** If you are using a portable base, follow instruction for position as per number 1 on page 1. Please also refer to points 7 and 8.
- 2. If you have heat and light kits, you will need to decide on which umbrella feed you require. The first option is arm fed, where the feed comes out of the electrical hub and runs along the support arm and the main arm and is terminated with a weatherproof 3 or 5 pin connector. The second option is to have a commando plug at the base of the umbrella and a cable feed will need to run along the floor. The third option is to have the cable coming out of the bottom of the umbrella for you to connect to your feed via a suitable connector.
- 3. We recommend using a suitable cable protector if you are running cable above ground.
- 4. If we are supplying slab weights for your portable base, we will issue the standard amount of weights required. Additional weight can be added if required.
- 5. You have two choices of 'feet' for the portable base. The first choice is having adjustable feet on your base which is what we recommend. These allow you to be able to adjust your base to ensure it sits level on the floor. The second option is wheels, which allows you to move the umbrella around. Once you optioned your base you will need to lock the wheels into position.
- 5. Please note that our wind ratings are excluded on installations using a portable base or spreader plate.





These are guidelines only and you must seek professional advice wherever required.