

INSTALLATION MANUAL



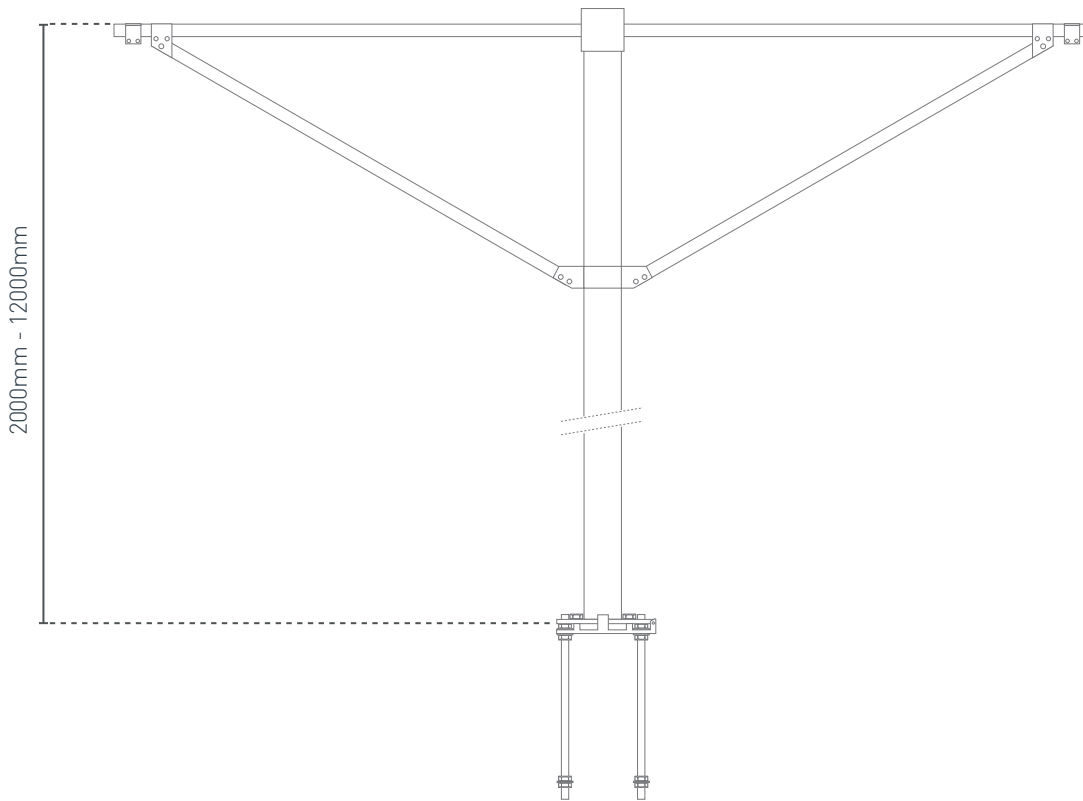
Multiple Light Approach Mast (2-5 Lighting Arrangement)

2000mm - 12000mm (180mm)

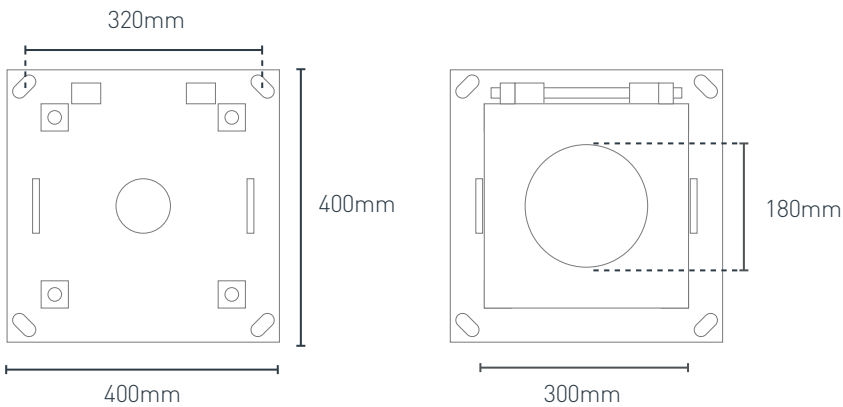
MULTIPLE LIGHT APPROACH MAST 180MM

Dimensions

Mast Dimensions



Base Plate Dimensions



Specification (mm)

| | |
|-------------------------|--------------|
| Mast Height | 2000 - 12000 |
| Mast Section Diameter Ø | 180 |
| Base Plate Dimensions | 300x300 |
| Base Plate Thickness | 12 |
| Ground Plate Dimensions | 400x400 |
| Ground Plate Thickness | 10 |
| Ground Rod Length* | 500 - 1000 |
| Ground Rod Diameter Ø | 16 |
| Cable Hold Diameter | 80 |

Lower Support Bracket Location Table

| Cross Arm Configuration | Cross Arm Length (m) | Bracket Location (mm)* |
|-------------------------|----------------------|------------------------|
| 2 Lights - 1.5m | 1.7 | 400 |
| 3 Lights - 1.5m | 3.2 | 750 |
| 4 Lights - 1.5m | 4.7 | 1150 |
| 2 Lights - 2.7m | 2.9 | 700 |
| 3 Lights - 2.7m | 5.6 | 1350 |

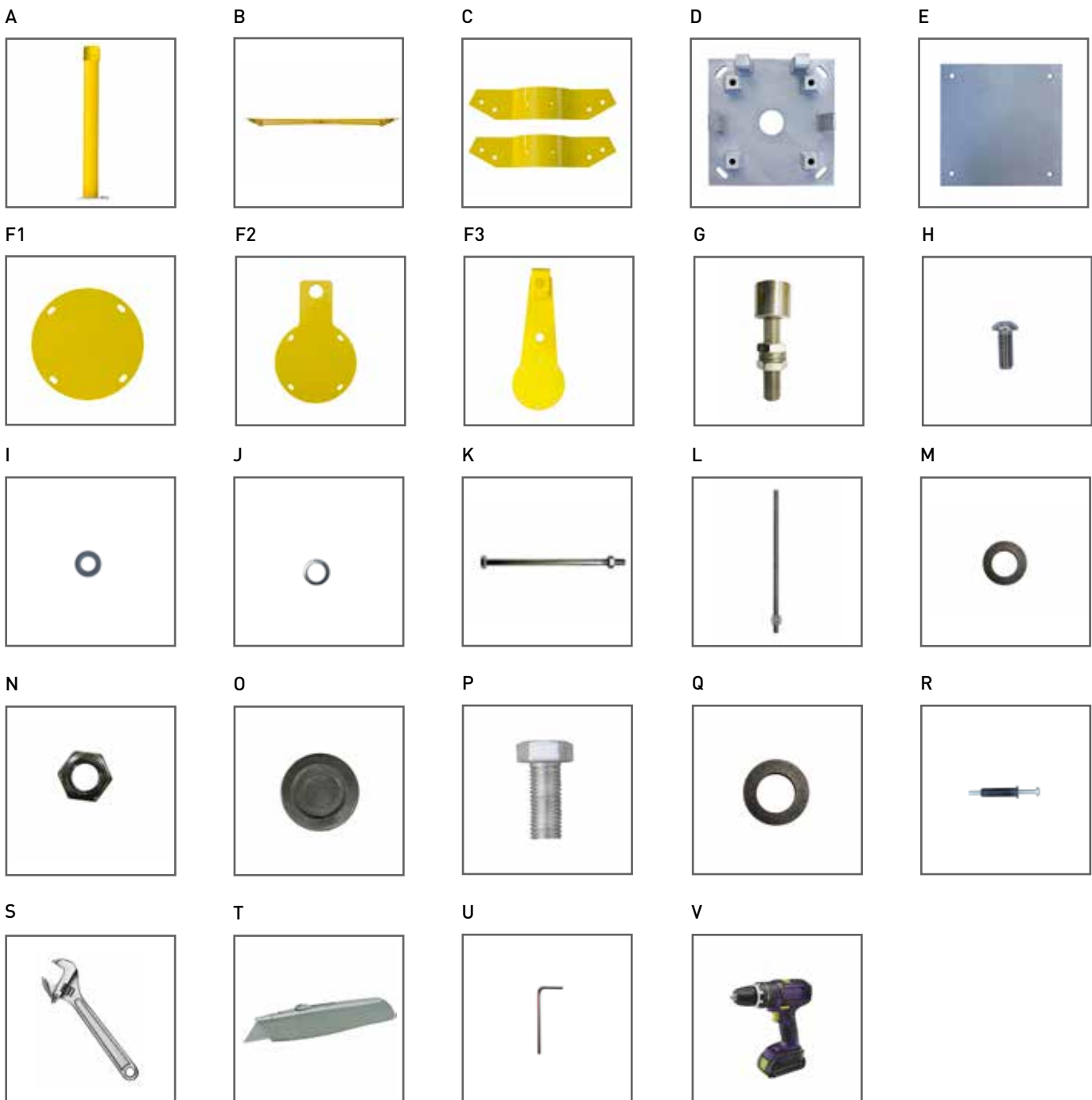
*From the top of the mast to the top of the lower support bracket.

* Ground rod length dependent on foundation size.

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Parts Checklist

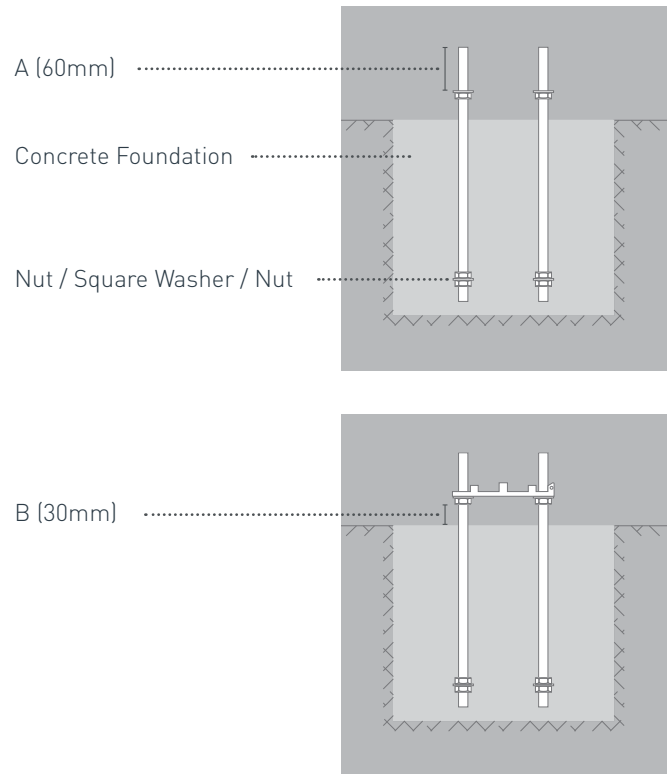
| | | | |
|----|--------------------------------------|---|--|
| A | 1 x Mast | K | 1 x Hinge Bolt, Nut & Washer |
| B | 1 x Cross Arm Assembly | L | 4 x Foundation Rods, Nuts & Square Washers |
| C | 2 x Support Arm Brackets | M | 4 x Washers |
| D | 1 x Ground Plate | N | 4 x Full Nuts |
| E | 1 x Ground Plate Template (Optional) | O | 1-5 x Rubber Grommet |
| F1 | 1 x Top Plate Or | P | 4 x Bolts |
| F2 | 1 x Extended Top Plate Or | Q | 4 x Large Washers |
| F3 | 1 x SQFL Extended Top Plate | R | 4 x Anchor Nut & Screw |
| G | 1-5 x Light Height Adjuster | S | 1 x Adjustable Spanner (Not Included) |
| H | 4 x Top Plate Screws | T | 1 x Utility Knife (Not Included) |
| I | 4 x Top Plate Washers | U | 1 x Allen Key (3mm) (Not Included) |
| J | 4 x Top Plate Spring Washer | V | 1 x Drill (Not Included) |



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Step 1

- At the base of each foundation rod, fit a nut, square washer and a nut.
- Screw one nut and one washer onto each threaded foundation rod for distance 'A' as shown on the concrete foundation dimension.
- Rest the ground plate (or template, if casting in advance of the masts) onto the washers ensuring the hinge is facing up, secure the plate in position with a retaining nut on each rod.
- Place the foundation bolts in the concrete at the correct depth, ensuring there is a maximum gap of distance 'B' between the concrete and the ground plate, as shown on the diagram. This is to make it possible to adjust the mast vertically later.
(To help maintain a gap, use wooden lats.)



Step 2

Once set, remove the retaining nuts and template if used. Thread the cable through the central hole of the base plate and rest the ground plate onto the washers. Ensure the hinge is facing in the required direction.



Step 3

Level the ground plate using the nuts on the underside of the plate.



Step 4

Once level screw one washer and one nut onto all four ground rods to secure the ground plate. Torque the nuts to 180Nm.



Step 5

Mate the two half hinges of the mast base plate and the ground plate together, ensuring the holes are aligned.



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Step 6

Once the holes are aligned, slide through the hinge bolt, use a large hammer if required. Secure the hinge bolt with the washer and nut provided. Torque the nut to between 150-200Nm.



Step 7

Rest the mast horizontally and feed the cables up inside the mast.

(If you require a centre light, feed a cable out of the mast pre-drilled hole, located 80mm down from the top cap. This cable will feed into the centre light.)



Step 8

To prevent ingress of water into the mast, slice the rubber grommets and thread onto the cables.



Step 9

Bring the cross arm assembly up to the top cap, thread the cables through the cross arm via the pre-drilled arm hole and secure the grommet into the arm.

(If you require a centre light, secure the grommet into the wall of the mast.)



Step 10

Rest the cross arm into the crown and secure in place using the appropriate top plate:

- » Standard Top Plate
- » Extended Top Plate (Centre Light Configuration)
- » SQFL Extended Top Plate (On to adapted top cap)

Secure in place with the four bolts, spring washers and flat washers, the spring washers sits between the flat washers and underside of the bolt.



Step 11

Depending on the light arrangement, position the light brackets on the cross arm in the desired position. Torque the nuts to between 15-20Nm.



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Step 12

Remove the bolts from the cross arm assembly.



Step 13

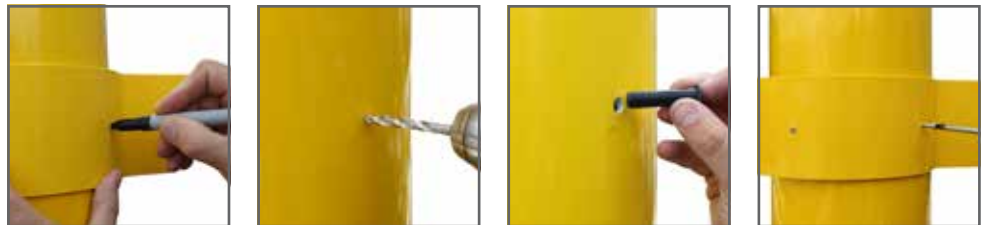
Wrap the support brackets around the mast in the correct position to attach the support arms.

(See the 'Lower Support Bracket Location' table for positioning relevant to the cross arm length shown on the 'Dimensions' page.)



Step 14

Mark location on the mast through the holes in the brackets. Drill the mast using an 8mm drill bit, taking care of internal cables and insert an anchor nut. Secure brackets to the mast using screws provided. Repeat on both sides.



Step 15

Align the support arm holes with the holes in the support bracket. Secure using the bolts, washers and nuts provided. Repeat for both sides. Torque the nuts to between 15-20Nm.



Step 16

Once the lower support arm bracket is correctly located, tighten the nuts on the upper support arm brackets. Torque the M8 nuts to between 10-15Nm and the M12 nut to between 15-20Nm.



Step 17

For a centre light configuration, fit the light height adjuster onto the top cap with one half nut and one lock washer, then secure in place with the second half nut and lock washer; adjust to the required height.



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Step 18

Fit the light height adjuster(s) onto the light bracket(s) with one half nut and one lock washer, secure in place with the second half nut and lock washer at the required height.

(Ensure nuts are tightened correctly to ensure the lock washers are mated.)



Step 19

Fit the appropriate lights onto the light height adjuster and connect the cables as required.

(See the light manufacturers installation guide.)



Step 20

Hinge the mast up vertically until it meets the ground plate resting blocks.

(Use lifting assistance if required - for masts over 6m use winch assembly.)



Step 21

Secure the mast base plate to the ground plate using the bolts and large washers. Torque the large M20 bolts to between 200-250Nm.

