

13MM-SM18 INSTRUCTION MANUAL

Installation Site

Installer must carefully inspect the selected roof installation location to ensure it is structurally sound and in good repair before installation. Please also ensure the roof location chosen is suitable for optimal signal and accepted by the customer before installation.

Warning

The SM18 relies upon the strength of the purlin-rafter joint to transfer the wind load to the building structure. Therefore, the installer must inspect joints near the mast to ensure they are suitable and structurally sound.

Safety Warning

Dangerous live electrical cables may be present behind roof sheets/building cladding. Please make sure to use an earth leakage protection safety device when drilling into any surfaces.

Installation Limitations

You can install the SM18 to a maximum height of 8.5m above ground level. The roof must not exceed 30 degrees slope and have cladding rib heights between 16 and 30mm.

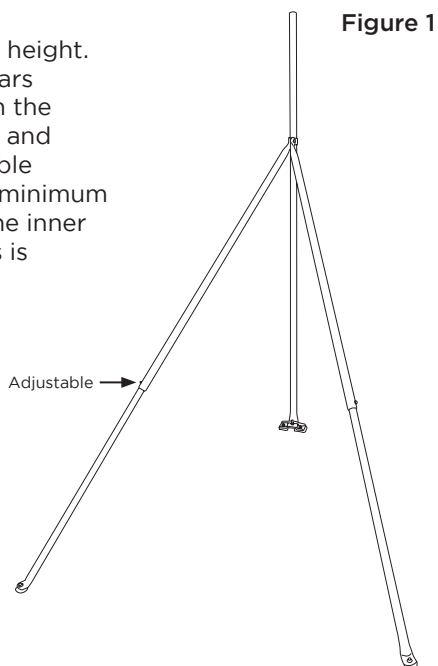
Rafter and batten spacings must be between 900mm minimum and 1200mm maximum.

The SM18 mount is suitable for use on standard corrugated cladding profiles like CUSTOM ORB®, and different profiles such as TRIMDEK® or SPANDEK®, a cyclonic metal batten kit can be used for additional strength if required at the anchor locations (sold separately) All anchor screws must be through the ridge of the sheeting.

The SM18 is unsuitable for tiled roofs and light gauge metal frame roofs.

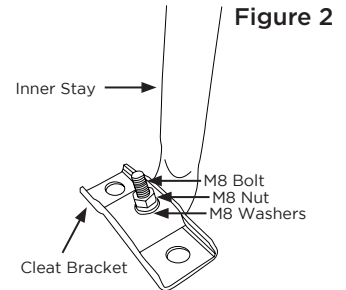
Mast and Stay Arms

The SM18 mast is 1.8m in height. The design of the stay bars allows them to run down the roof from the main mast and have a maximum allowable length of 2200mm. The minimum permissible overlap of the inner and outer stay bar tubes is 150mm. See Figure 1.

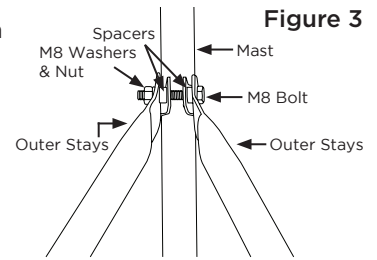


Installation Guide

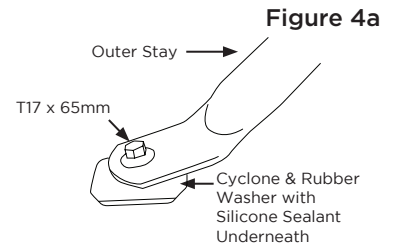
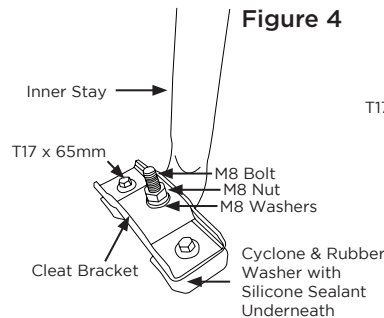
Step 1: After selecting a suitable roof position and confirming with your client, fasten the supplied cleat bracket to the foot of the mast using the supplied M8 x 30mm carriage bolt, washers and nut. Refer to Figure 2.



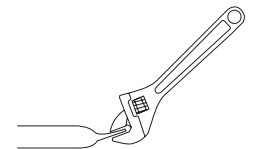
Fix the two stay bars to the mast (450-550mm down from the mast top) using the collar clamp assembly with two supplied spacers and M8 x 50mm bolt, washers and nut. Refer to Figure 3.



Step 2: Place the mast foot cleat bracket onto the roof or ridge capping. Place some roofing silicone sealant underneath the bottom face of the mast base where the two screws fasten and then fasten to the roof using two Type 17, 65mm wood screws with cyclone and rubber washers supplied. Next, extend out and attach the flattened ends of the telescoping stay tubes to the roof ridges, first placing some roofing silicone sealant underneath the bottom face. Again, use the Type 17, 65mm wood screws and cyclone and rubber washers supplied. See Figures 4 and 4a.

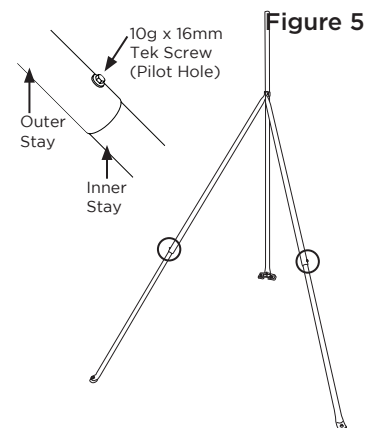


Note: You can adjust the flattened ends of the stay bars to suit the installation angle by simply bending them with an appropriate tool like a vice grip or adjustable wrench.



Warning: If fixing to metal batten roofs (0.42-1.5mm thick), use either duo cleats (13MM-DUOCLEAT) or the cyclonic metal batten kit (sold separately) and fasten replacing all Type 17, 65mm wood screws with Buildex® M6.5-12 x 55 Roof Zips® screw fasteners. *Also sold separately 13MM-BK01 Universal Batten Kit for Metal Roofs

Step 3: The mount is nearly complete and should look as shown in Figure 1. Using a spirit level (magnetic levels make the job easier), adjust the mast by pushing it into place until it is plumb, now secure in place the two stay bars by using the supplied 10g x 16mm TEK® screws and drilling into the pilot holes of the stay bar overlap. See Figure 5



Step 4: Follow the manufacturer's instructions to assemble your antenna, connect the antenna cable, and attach it loosely to the top of the inner mast tube in preparation for testing.

Step 5: Connect your test equipment to the antenna and then slowly rotate the antenna until you achieve the optimal signal. Make sure to loosen the antenna clamps sufficiently to rotate freely. Once correctly aligned, only tighten the clamping assembly to secure the antenna direction in place.

Step 6: Attach the permanent cable connection to the antenna and fasten the cable to the mast using suitable fasteners like UV stable tape and UV stable cable ties.

Step 7: The mast installation is complete and should look like Figure 6. Finally, fasten the remaining cable down the mast and feed it into the roof space or building entry point, making sure not to exceed the manufacturer's cable bend radius or to expose the cable to any sharp edges upon entry where the cable can be cut or damaged. Double-check all fasteners and seals before leaving the roof area.

Figure 6

