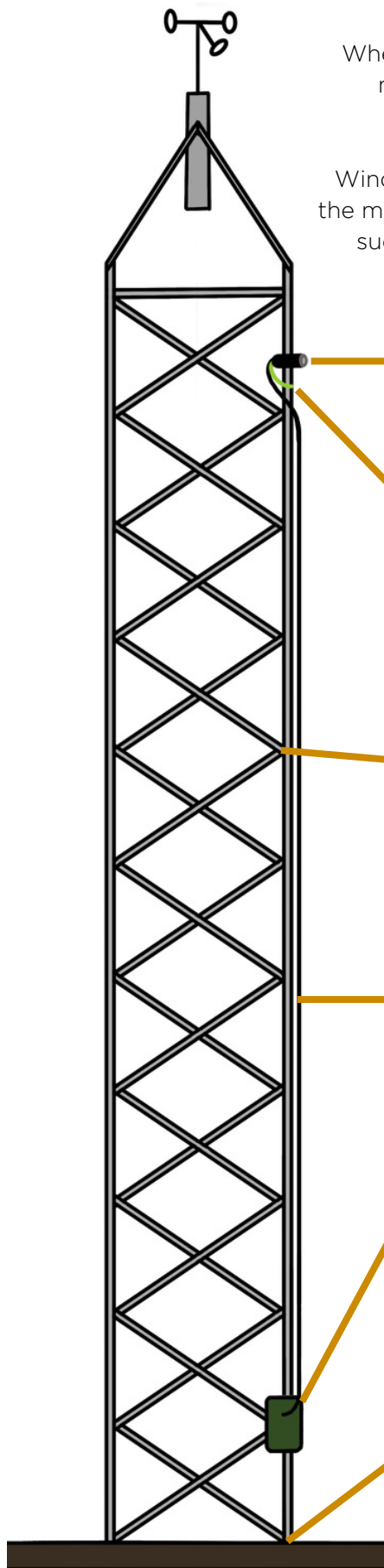


Preventing damage from electrostatic discharge

When mounting recorders at height (eg. meteorological or wind masts) using microphone extension cables, additional precautions are required to help prevent damage from electrostatic discharge.

Windy, dry conditions can result in electrostatic build-up which may damage the microphone. Ultimately the charge will discharge along a metal conductor, such as the metal in the microphone cable, resulting in a spark which could damage the microphone or recorder. Also be aware that mounting your microphone or detector at height may attract lightning.



Attaching earth wire to microphone

Microphone grounding

The microphone must be grounded to the mast or other conductive path to the ground. Do this by attaching the microphone earth wire directly to the mast.

Mast material

Microphones should be mounted on static electricity conductive masts such as metal. Avoid non-conductive masts such as fibreglass and nylon.

Extension cables

You can use a single 3, 5, 10, 20 or 50 metre cable, or any two sizes combined, up to a maximum of 100m total.

Isolating the detector

Operate the recorder from internal batteries or make sure the external power supply doesn't have a path to the ground.

Ground the mast

The mast should be grounded with an appropriate earth stake.



1

Scrape some of the black anodising off the microphone body using sandpaper.



2

Use 1.5-2.5mm² electrical wire. Strip approximately 2cm of the plastic insulation off the end of wire.



3

Bend the exposed electrical wire end in half.



4

Place the stripped wire end against the exposed microphone body.



5

Secure the wire to the microphone using a 20mm stainless steel hose clamp.



6

Connect the opposite end of the wire to a metal part of the tower in a similar way, keeping the wire as short as practical.