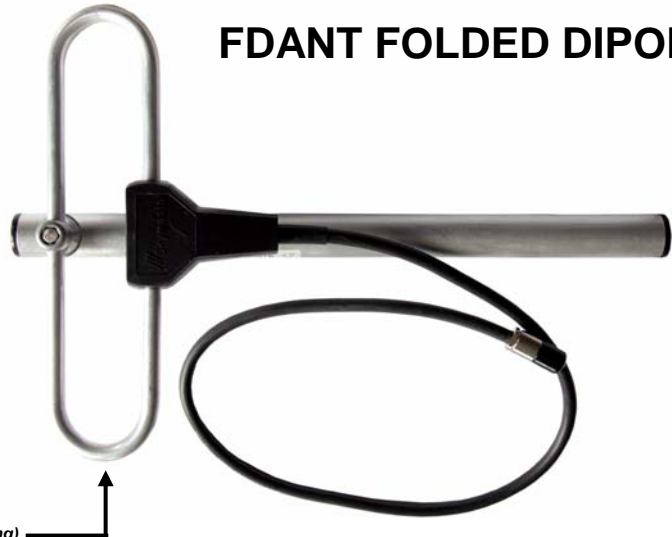


The FDANT is a well designed and constructed half wave folded dipole aerial with BALUN matching for use with all SCOPE UHF paging systems. It is capable of providing excellent coverage of very large sites provided it is sited and installed correctly.

FDANT FOLDED DIPOLE



DRAIN-HOLE (must be downward facing)

Scope transmitters operate on UHF frequencies which incur high power losses in the antenna feeder cable. Always use quality 50 OHM coaxial cable. RG58 is only acceptable on cable runs of up to 5 metres. We recommend RG213 or better on greater lengths up to about 15 metres. Longer runs should be avoided if possible. Use only high quality solder-fit connectors. Pre-terminated feeder cable in 5, 10 and 15 metre lengths are available from SCOPE.

- ◆ When installed, the drain hole on the antenna element must face downward
- ◆ Ensure that the connection from the aerial to the feeder cable is sealed correctly (see below for details) and that the feeder cable is adequately clamped along the entire run. **DO NOT COIL EXCESS CABLE.**
- ◆ The aerial can be supplied with either a wall mounting bracket or pole mounting clamp. **If using the wall bracket, ensure that the aerial is mounted on a vertical wall facing the primary coverage area and away from any metal objects.**
- ◆ If a more omni-directional coverage is required, either mount the aerial at the top of a building with the upper part of the radiator above roof level, or mount on a vertical pole above roof height using the pole mount clamp.
- ◆ For propagation throughout a large multi-storey building, the best coverage is often achieved by either mounting the aerial in a riser, or mounting it outside the building at half the building height.
- ◆ Where penetration of buildings is required as opposed to maximum range, increasing the aerial height could be counter productive. In these circumstances, lowering the aerial may be the best solution, assisting signal penetration through windows and doors etc.
- ◆ UHF signals do not travel well over hills but they will bounce off obstructions and in many cases the signal will be received by reflection rather than by direct path.
- ◆ Watch out for hazards to transmission: Foil backed plasterboard, metal clad buildings, chain link and chicken wire fencing all act as screens to radio waves, severely limiting the range.

IMPORTANT: SEALING THE CABLE JOINT

The joint between the antenna cable tail and the main cable **MUST** be properly sealed with self-amalgamating tape and then over-wrapped with PVC tape.

Using self amalgamating tape, commence wrapping approximately 35 mm (1.5") from the connector. The tape should be stretched 2 or 3 times its natural length to ensure a tight fit -free of voids. The first turn should provide 100% overlap, gradually reducing overlap to not less than 50%. Ensure no voids are produced in the wrapping, by building up tape at the connector to avoid a steep step. Continue wrapping to finish on the coaxial feeder about 35mm (1.5") on the far side of the connector.

An over-wrapping with PVC tape should be applied, to completely cover the previous wrap, starting slightly before the self amalgamating tape, and finishing after it. Again 100% overlap, followed by 50% overlap, is recommended, the tape being kept taut during wrapping.