

1. Antennas for RadioRanger SEL-8300

The SEL-8300 unit works with two types of antennas – local antenna and extended antenna. EOS makes the internal and extended antennas.

1.1 Local Antenna

1.1.1 Antenna Type

The local antenna is of a coaxial dipole type.

A 1/4 wave stub is counter-balanced with a brass pipe. This design is widely used by the radio industry.

1.1.2 Antenna Part

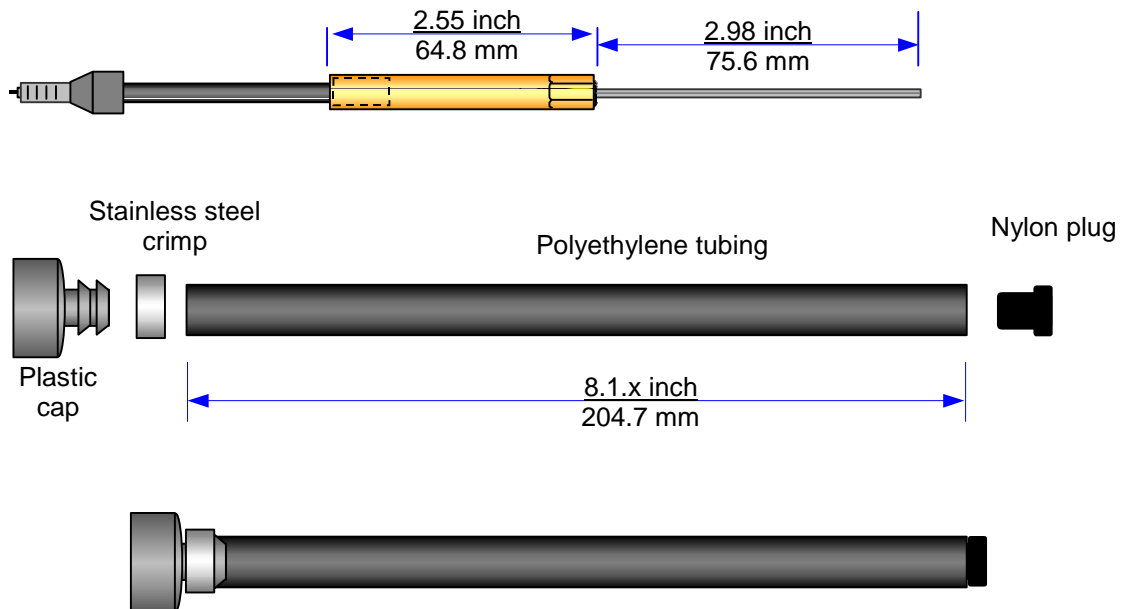
SEL part number: SEL-8300 Local Antenna

Manufacturer: EOS

The antenna is built by EOS, using RG-58/U (50 Ohm) coaxial cable, plastic insert, brass pipes and a crimping ferrule. The antenna is encapsulated with a polyethylene tubing, for environmental protection.

1.1.3 Antenna Structure

Antenna drawing is shown in figure below.



The polyethylene pipe is crimped with a stainless ring, to ensure water tightness.

1.1.4 Antenna Replacement

The local antenna has no means of detaching or replacing with any other type of antennas.

1.2 Extended Antenna

1.2.1 Antenna Type

The extended antenna is a non-detachable unit – it is soldered at the production line.

Antenna is connected with 15 feet of an LMR-195 (50 Ohm) coax cable.

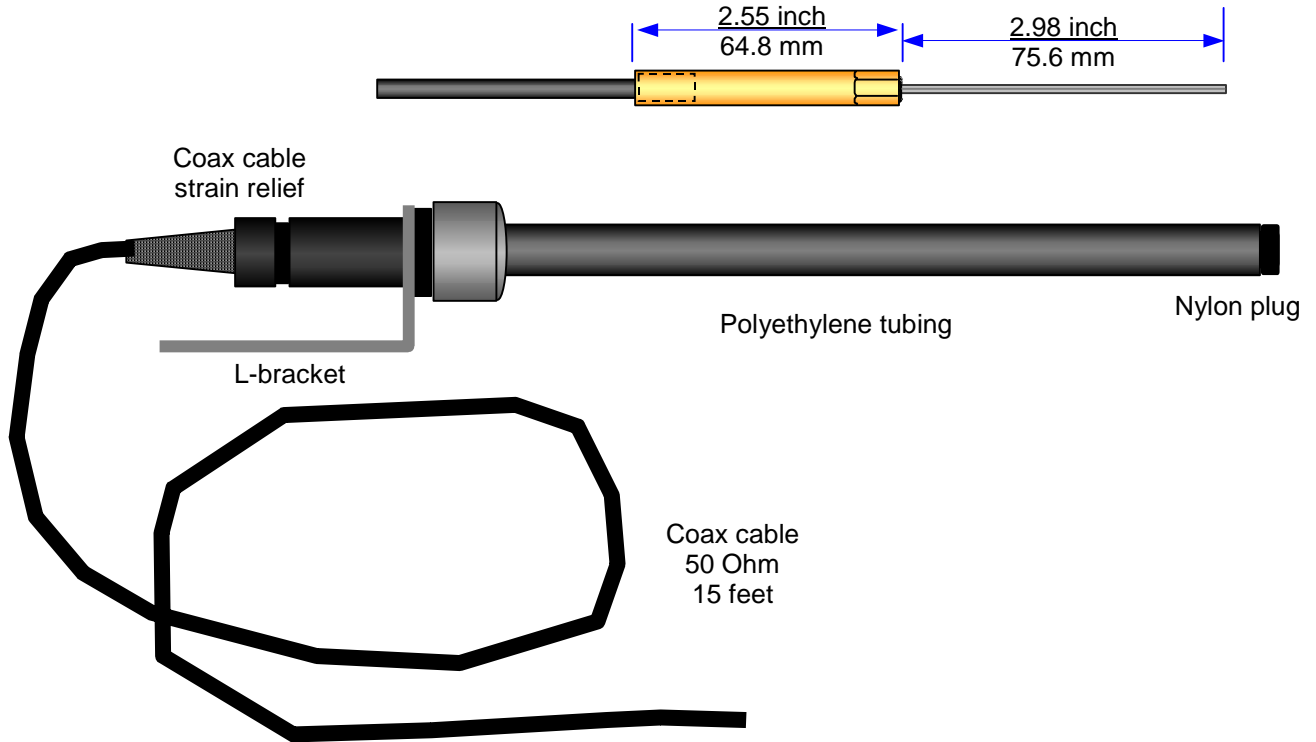
The antenna radiation element is the same as the SEL-8300 Internal Antenna (shown above).

1.2.2 Antenna Part

SEL part number: SEL-8300 Extended Antenna
Manufacturer: EOS

1.2.3 Antenna Structure

The antenna drawing is shown in figure below.



The coaxial cable length is set to 15 feet.

1.2.4 Antenna Replacement

The extended antenna has no means of detaching or replacing with any other type of antennas.