



CEL800 - CEL900

For improved analogue, CDMA or digital cellular marine mobile and land based telephone communications

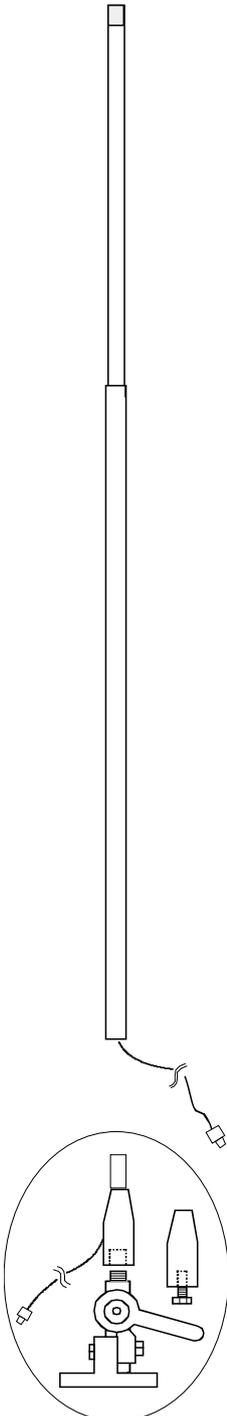
CEL800 and CEL 900 are high gain, high strength vertically polarised collinear array antennas, designed for use in the marine mobile and fixed land environments.

These systems are ideal for fringe area operation being suitable for both inshore marine and land communications including remote building sites, and temporary bases. The efficiency of both reception and transmission is improved throughout the mobile network, especially when operating in fringe areas where signal power is significantly reduced and fading of signal strength causes communication difficulties. Signals are transmitted at the required field intensity using less power, thus significantly reducing drain on the mobile battery. In analogue and CDMA systems range can also be increased due to high gain characteristics.

Antennas are fully marinised, with a fibreglass radome providing high strength protection for the radiating element. This together with a stainless steel mounting tube ensures a high degree of strength and long operational life. It can be supplied for side or base mounting or with a strong, multi-angled nylon swing down mount. Five meters of low loss UHF co-axial cable is supplied to connect to the mobile telephone.

SPECIFICATIONS

Colour	Standard is Black. Optional White.
Overall Length	1.6 metres (5.3ft)
Pattern	Omni-directional
Polarisation	Vertical
Frequency Range	AMPS, GSM and CDMA Cellular Mobile Telephone Bands 820-890 MHz type CEL800 890-960 MHz type CEL900
VSWR	Better than 1.7:1 entire band
Gain	+5 dBi
Impedance	50 Ohms (nominal)
Power Capability	50 watts maximum
Wind Survival	Designed to withstand wind speeds up to 200 km/h (125 mph), 55m/sec
Temperature	-50 to +55°C (-60 to +131°F, 100% humidity)
Termination	FME female crimp connector -other connectors to order
Connection	5m (16.4 ft) of RG58 extra low loss coaxial cable
Mountings	Can be fitted with: Standard Base Adaptor internally threaded 25.4mm (1") with Nylon Swing Down Mount; or 12mm Bolt Base Adaptor for fixed base mounting or may be side mounted using heavy duty clamps.
Weight	1.2kg (2.64 lbs)
Packed Weight	1.8 Kg (4 lbs)



Specifications subject to change – Issued 07/13

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INSTALLATION INSTRUCTIONS

MOUNTING BY SWINGDOWN MOUNT

1. Place the base plate (of the mount) in the desired position and use it as a template.
2. Mark the position of the mounting holes.
3. Drill 4 x 6.4mm (1/4 in) diameter holes.

MOUNTING BY 12mm BOLT BASE MOUNT ADAPTOR

1. Mark the mounting position on a horizontal surface or bracket that allows a minimum of 38mm (1.5 in) diameter surface area.
2. Drill a 13mm (1/2 in) hole in the marked position.
3. Using a 12mm stainless steel or galvanised bolt fastens the antenna down firmly. **DO NOT OVERTIGHTEN AS THREAD MAY STRIP IN NYLON BASE.**

MOUNTING BY SIDE MOUNTING

1. Use heavy duty clamps or strong hose clamps.
2. Space them 300mm (12 in) apart...
3. Do not over tighten.
4. Do not drill stainless steel mounting tube.

IMPORTANT FACTORS

1. The top 80 cm (32 in) of the antenna must be in free space, well away from other objects, antennas, etc. Mounting it as high as possible will assist performance. Vertical is best.
2. The base/mounting tube section of the antenna must not be drilled or damaged.
3. Supplied cable may be shortened. It may be lengthened but performance will be degraded due to signal/coaxial losses.
4. Due to internal arrangements the antenna will exhibit an open circuit if tested with an ohm meter or DC tester.
5. When using a swingdown mount allow sufficient cable to permit the antenna to swingdown without cable strain.



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