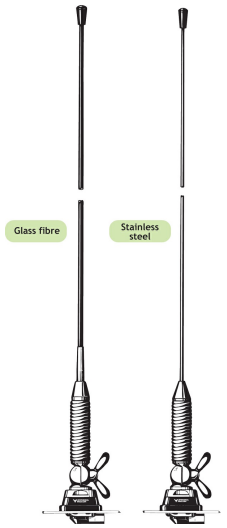
¼ λ Mobile Antenna with Shock Spring for the 80 MHz Band



DESCRIPTION

- Sturdy, general-purpose ¼ λ antenna in professional quality.
- Available with glass fiber or stainless steel whip.
- Stainless steel Z-mount with ball-joint and wing screw whip-fastening system.
- Available with bright or black-chromed metal parts (mount and whip):
  - ML 1-Z…: Bright version
  - ML 1-BZ…: Black version
- Simple mounting exclusively with access from the outside. Models with roof thickness from 2 mm to 7.5 mm mounting from the inside.
- Choice between two connection principles: Z-mount:
  - FME-connection (supplied without cable)
  - ZP4-mount: Permanently attached 4 m cable terminated with FME-connector.

SPECIFICATIONS

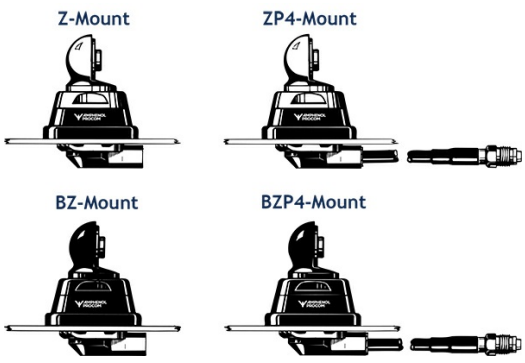
Electrical	
Model	ML 1-Z
Frequency	Tunable by cutting within : 66 - 88 MHz (Also applicable : 88 - 175 MHz)
Antenna Type	¼ λ mobile whip antenna
Max. Input Power	250 W
Polarisation	Vertical
Impedance	50 Ω
VSWR	≤ 1.3:1 @ f. res.
Bandwidth	≥ 8 MHz @ VSWR ≤ 2.0
Gain (EIA RS-329-1)	0 dB

Mechanical	
Materials	Whip : Conical glass fiber or Stainless steel Chromed brass Spring : Stainless steel Mount : Chromed brass Weather- and shockproof plastics Stainless steel
Installation Torque	7.5 ±1 Nm
Colour	Black or bright, see mount variant
Height	Approx. 1100 mm / 43.31 in.
Weight	Z-version : Approx. 250 g / 0.55 lb. ZP4-version : Approx. 400 g / 0.88
Mounting	21 mm / 0.83 in. dia. hole (For roof thickness 2 mm / 0.08 in. up to 7.5 mm / 0.30 in. mounting hole should be 22 mm dia.)
Mounting Plate Thickness	Max. 2.0 mm (Models up to 7.5 mm on request)

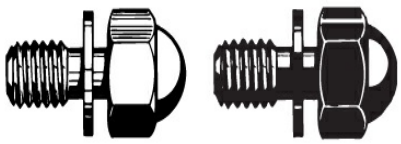
ORDERING

Model	Product No.	Description	Frequency
ML 1-ZR	130000616	Stainless Steel Whip	Z-mount with FME-system BRIGHT
ML 1-BZR	130000621	Stainless Steel Whip	BZ-mount with FME-system BLACK
ML 1-ZP4R	130000618	Stainless Steel Whip	ZP4-mount with 4 m cable and FME-connector BRIGHT
ML 1-BZP4R	130000622	Stainless Steel Whip	BZP4-mount with 4 m cable and FME-connector BLACK
ML 1-Z	130000605	Glassfibre Whip	Z-mount with FME-system BRIGHT
ML 1-BZ	130000606	Glassfibre Whip	BZ-mount with FME-system BLACK
ML 1-ZP4	130000607	Glassfibre Whip	ZP4-mount with 4 m cable and FME-connector BRIGHT
ML 1-BZP4	130000608	Glassfibre Whip	BZP4-mount with 4 m cable and FME-connector BLACK

THE WHIP IS COMPATIBLE WITH ALL BELOW MOUNTS



Hat screw option:



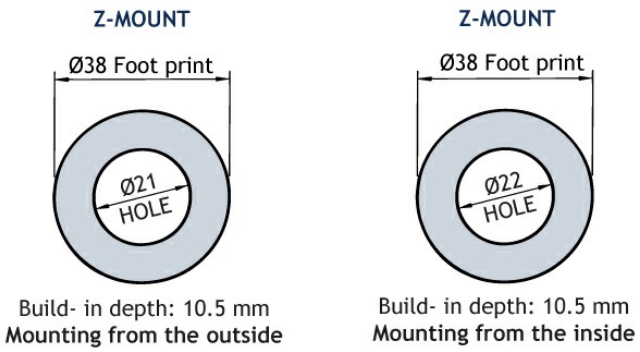
For antenna delivered with hat screw instead of wing screw add a K to the antenna designation.

INSTALLATION

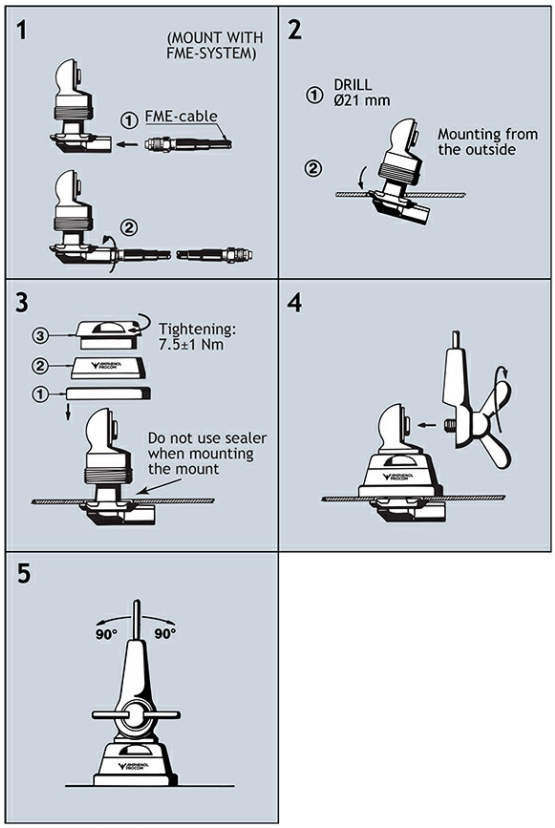
This antenna is supplied with type Z-mount. The whip is fastened to the mount by means of our standard ball-joint and wing screw system. The adjustable ball-joint ensures that the whip can always be mounted in a vertical position independent of the angle of the installation spot.

The Z-mount is particularly well suited for mounting on car-roofs because of its ability to be installed exclusively with access from the outside. The Z-Mount for roof thickness from 2 mm to 7.5 mm must be mounted from the inside. However, the antenna can be installed anywhere on the car, as the Z-mount is equally well suited for mounting on e.g. trunk or wing.

1. INSTALLATION DIMENSION



2. INSTALLATION STEPS

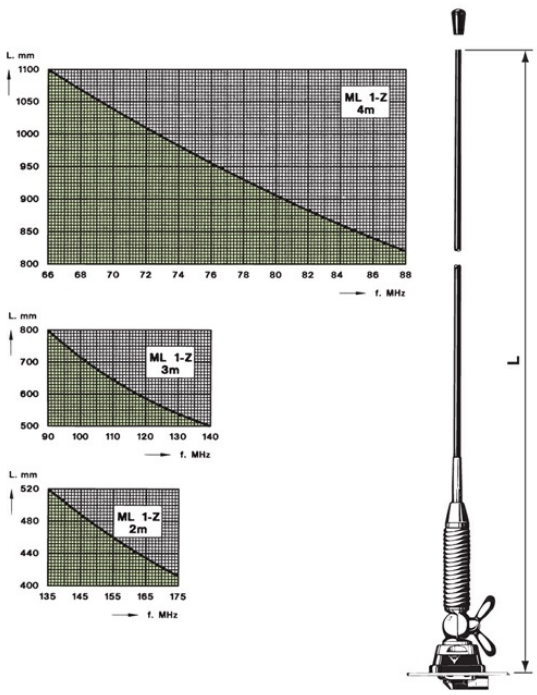


Do not use sealer on rubber gasket or other places.

3. TUNING

The antenna should always be tuned using an VSWR-meter. The cutting diagrams below serve as a guide for this procedure.

GLASS FIBRE WHIP



STAINLESS STEEL WHIP

