

## 1/4 $\lambda$ Mobile Antenna with Shock Spring for the 80 MHz

#### Band

#### DESCRIPTION

- $\blacktriangleright$  Sturdy, general-purpose  $1\!\!/_4$   $\lambda$  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**

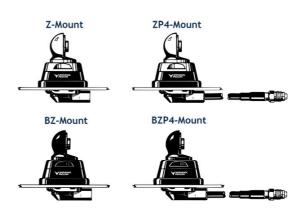
Electrical		
Model	ML 1-Z	
Frequency	Tunable by cutting within: 66 - 88 MHz (Also applicable: 88 - 175 MHz)	
Antenna Type	1/4 λ mobile whip antenna	
Max. Input Power	250 W	
Polarisation	Vertical	
Impedance	50 Ω	
VSWR	≤ 1.3:1 @ f. res.	
Bandwidth	≥ 8 MHz @ VSWR ≤ 2.0	
Gain (EIA RS-329-1)	0 dB	

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

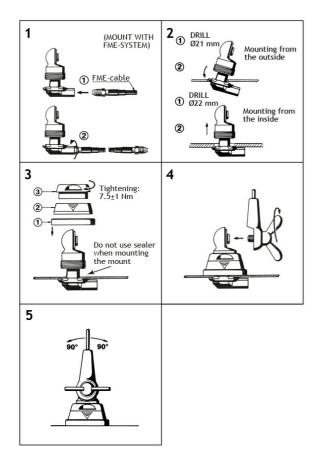
# **Z-MOUNT** Ø38 Foot print Ø21 HOLE

Build- in depth: 10.5 mm Mounting from the outside

## **Z-MOUNT** Ø38 Foot print Ø22 HOLE

Build- in depth: 10.5 mm Mounting from the inside

#### 2. INSTALLATION STEPS

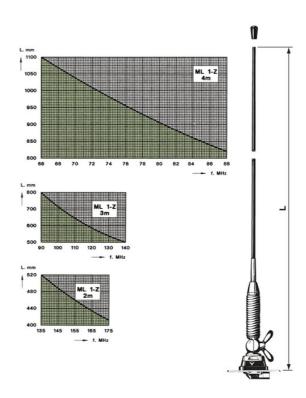


Do not use sealer on rubber gasket or other places.

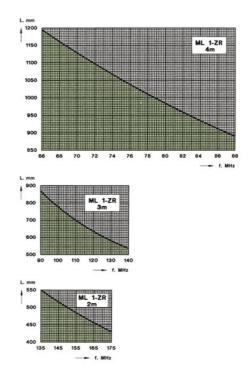
#### 3. TUNING

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





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