

# ML 1-ZR/160/BBMU/...

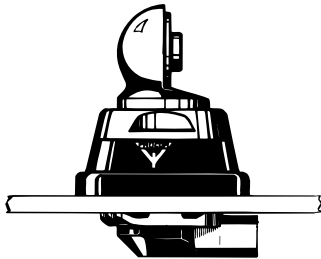
160 MHz 2 dB Mobile Antenna  
for Glass Fibre Roof

PROCOM

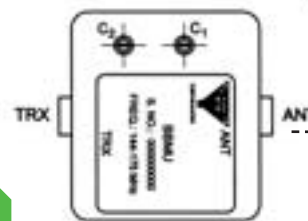
## DESCRIPTION:

- ★ Sturdy  $1/2 \lambda$  mobile antenna in professional industry standard quality.
- ★ Groundplane independent antenna for mounting on non-conducting surfaces.
- ★ Ideal for glass fibre roofs as can be found on some trucks, lorries, transport vans, busses and farm machinery.
- ★ The ML 1-ZR/160/BBMU/... can be tuned from 144-175 MHz via the adapter box.
- ★ Necessary cable length between the adapter box and the mount : 100 mm (FME junction cable included).
- ★ Simple mounting exclusively with access from the outside.  
Models with roof thickness from 2 mm to 7.5 mm mounting from the inside.
- ★ FME antenna cable can be mounted direct in the adapter box.

### Z- MOUNT



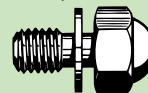
100 mm FME cable  
(included in the supply of  
the broad-band antenna).  
**Tip:** The cable length  
should not be changed!



## SPECIFICATIONS:

ELECTRICAL	
MODEL	ML 1-ZR/160/BBMU/...
ANTENNA TYPE	$1/2 \lambda$ mobile whip antenna
FREQUENCY	Turnable within 144-175 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	2 dB (acc. to EIA RS-329-1)
BANDWIDTH	$\geq 6$ MHz @ SWR $\leq 2.0$
SWR	$\leq 1.3$ @ f. res.
MAX. POWER	25 Watts
MECHANICAL	
MATERIALS	Whip: Stainless steel Chromed brass
	Spring: Stainless steel
	Mount: Chromed brass
	Environment-proof plastics Stainless steel
RECOMMENDED INSTALLATION TORQUE	7.5 $\pm$ 1 Nm
COLOUR	Bright / black
DIMENSIONS	Antenna : Approx. 800 mm Adapterbox : 50 x 50 x 20 mm FME junction cable : 100 mm
MOUNTING	$\varnothing 21$ mm dia. hole (For roof thickness 2 mm up to 7.5 mm mounting hole should be 22 mm dia.)
ROOF THICKNESS	0.5-2 mm and 5-7.5 mm respectively depending on mounting ring

Hat screw option:



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

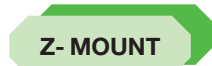
# ML 1-ZR/160/BBMU/... Installation



## INSTALLATION:

1. Mount and adapter box to be connected by means of the 100 mm junction cable included in the supply.
2. Connect the FME cable for the radio station to the adapter box.
3. 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.
4. Adjust the frequency by means of an SWR-analyzer via C1 and C2 on the adapter box.

## 1. INSTALLATION DIMENSIONS:



Build-in depth: 10.5 mm  
Mounting from outside

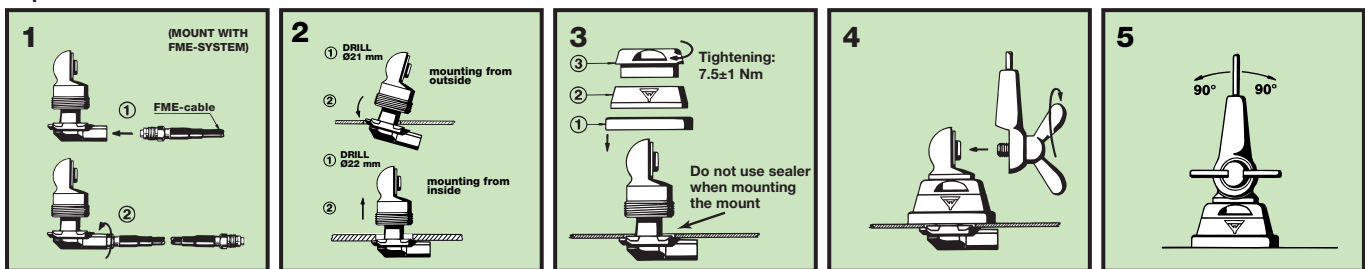


Build-in depth: 10.5 mm  
Mounting from inside

## 2. INSTALLATIONS STEPS

The mount is delivered as a standard Z-mount ( for roof thickness 0.5-2 mm).

If the mount must be used for roof thicknesses between 5 and 7.5 mm the enclosed replacement parts must be used.



## 3. TUNING:

SWR 3000 Analyzer with built-in signal generator and graphic display range of measurement 30-2700 MHz.



Tune the SWR in on the desired centre frequency and suitable spacing ( for instance 30 MHz ). Adjust C1 till the SWR curve emerges on the display. Adjust C2 till the best possible SWR minimum is reached on the required frequency. Fine-tune the SWR minimum and the bandwidth step by step by means of C1 and C2.

