

# MH 1-XR

1/4 λ Mobile Antenna for the 160 MHz Band

PROCOM

## DESCRIPTION:

- ★ Black-chromed, conical stainless steel whip.
- ★ Elegant transition between whip and mounting surface due to slim-line mount.
- ★ 30° tiltable whip.
- ★ Stainless steel X-mount with M6-thread whip-fastening system.
- ★ Simple mounting exclusively with access from the outside.
- ★ Models available with X-mount (oblong), CX-mount (circular) and MM-mount (magnetic).
- ★ Choice between two connection principles:
  - ★ X-mount, MM-mount : FME-connection (supplied without cable).
  - ★ XP4-mount : Permanently attached 4 m cable terminated with FME-connector.

## SPECIFICATIONS:

ELECTRICAL	
MODEL	MH 1-XR
ANTENNA TYPE	1/4 λ mobile whip antenna
FREQUENCY	Tunable by cutting within: 144...175 MHz (Also applicable: 175...225 MHz)
IMPEDANCE	Nom. 50 Ω
POLARISATION	Vertical
GAIN	0 dB (acc. to EIA RS-329-1)
BAND WIDTH	≥ 15 MHz @ SWR ≤ 2.0
SWR	≤ 1.3 @ f. res.
MAX. POWER	150 watts
MECHANICAL	
MATERIALS	Whip: Black-chromed, conical stainless steel Black-chromed brass Mount: Black-chromed brass Environment-proof plastics Stainless steel
RECOMMENDED INSTALLATION TORQUE	4 ± 1 Nm
COLOUR	Black
HEIGHT	Approx. 55 cm
WEIGHT	X-version : Approx. 70 g XP4-version: Approx. 180 g MM-version: Approx. 300 g
MOUNTING	18 mm dia. hole

All whips are compatible with all mounts.

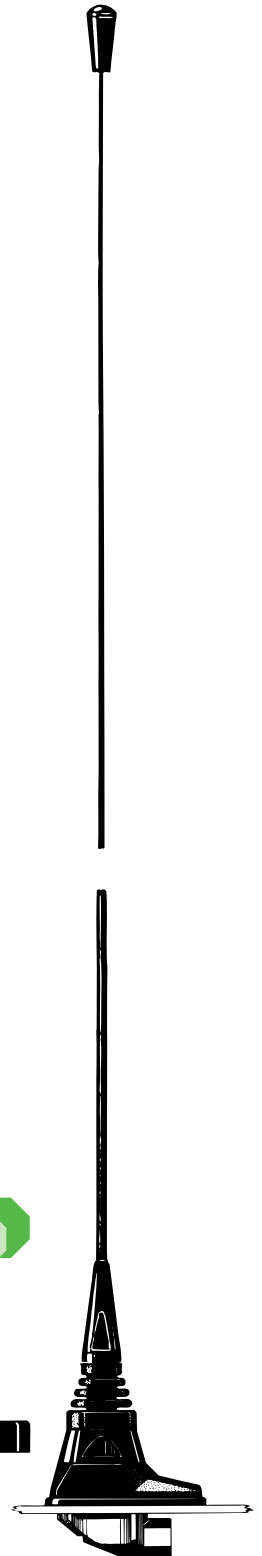
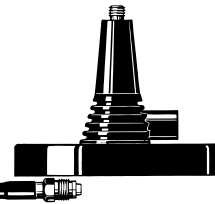
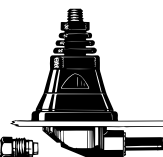
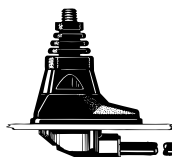
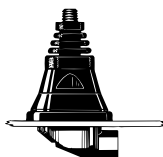
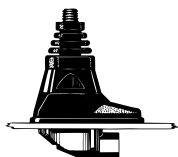
X-Mount

CX-Mount

XP4-Mount

CXP4-Mount

MM-Mount



## ORDERING DESIGNATIONS:

MOUNT VERSION	X-mount (oblong) with FME-system	CX-mount (circular) with FME-system	XP4-mount (oblong) with 4 m cable and FME-connector	CXP4-mount (circular) with 4 m cable and FME-connector	MM-mount (magnetic) with FME-system
TYPE NO.	MH 1-XR	MH 1-CXR	MH 1-XP4R	MH 1-CXP4R	MH 1-MMR

PROCOM A/S reserve the right to amend specifications without prior notice.

# MH 1-XR Installation



The X and CX antenna types can be mounted anywhere on the car, however, roof top mounting is always recommended. The oblong X-mount can be mounted on the often very narrow strip on the rear wing between the trunk lid and the side of the car. Mounting can take place exclusively with access from the outside when drilling an 18 mm dia. hole. Mounting can take place from the inside by drilling a 14 mm dia. hole. When mounting in a 14 mm dia. hole, remove the bottom plastic ring of the packing gasket with a sharp cutter.

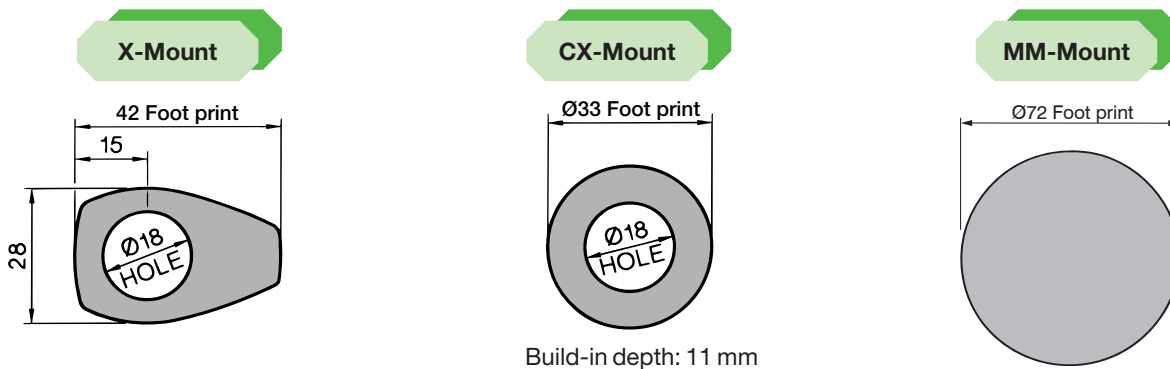
When cleaning the car in car-washing machines, remove the whip using a spanner, size 9 mm. After wash, refit the whip and tighten it lightly with the spanner.

As the X- and CX-mounts are internally equipped with a bendable section, the antenna can always be adjusted to an upright position independent of the tilt angle of the installation spot (up to 30° tilt).

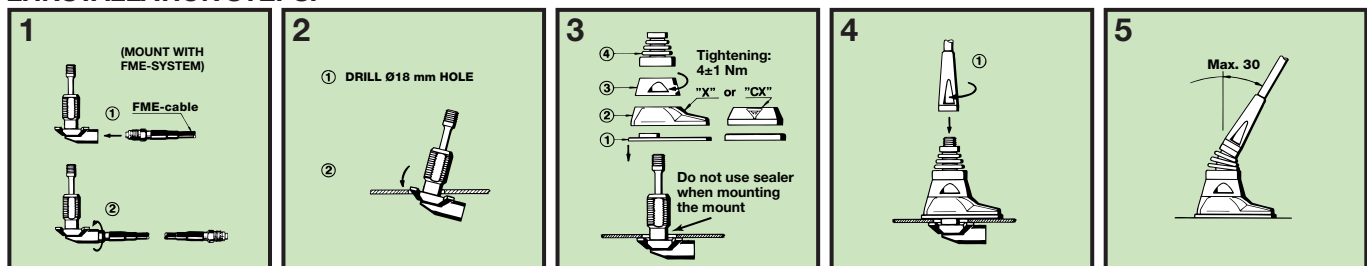
The MiniMag (abbreviated: MM) is a small, light-weight magnetic mount with a high attaching effect. A silicone layer applied to the contact surface protects the car roof and ensures maximum friction.

Antennas with magnetic mount should be mounted in the middle of the vehicle roof to ensure best omnidirectional coverage.

## 1. INSTALLATION DIMENSIONS:



## 2. INSTALLATION STEPS:

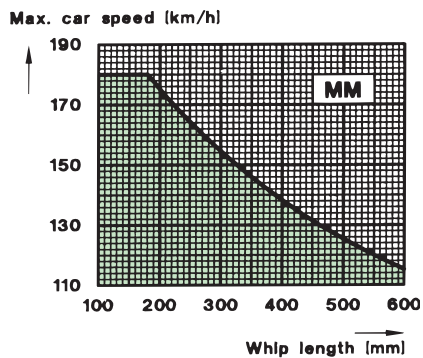
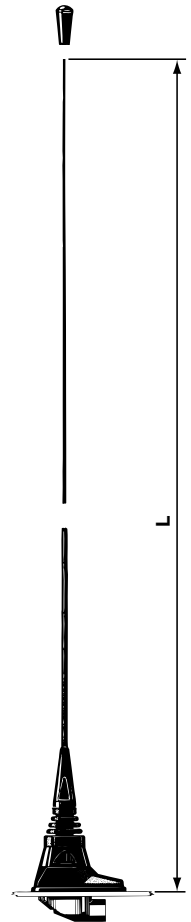
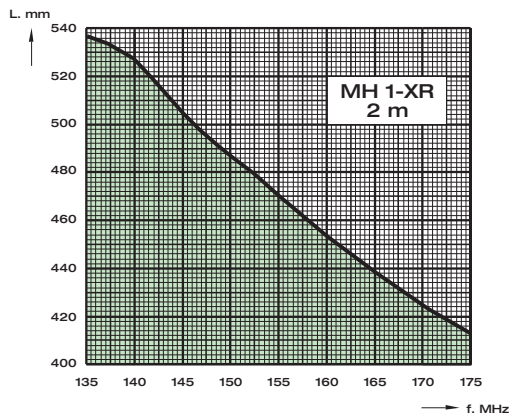
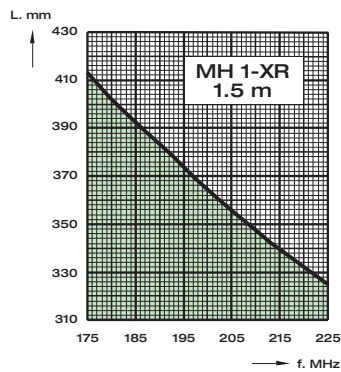
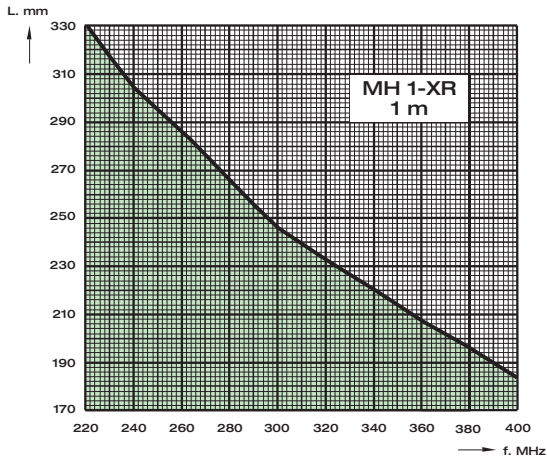
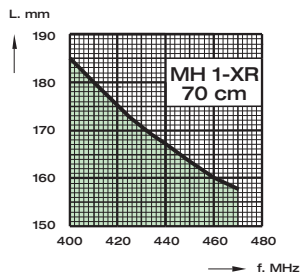


# MH 1-XR Tuning Information



### 3. TUNING:

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



#### PLEASE NOTE:

For safety reasons:  
Do not operate the MiniMag with antenna whips longer than 60 cm. Please respect the maximum car speed limit corresponding to a particular whip length as appears from the above curve.

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