

# MU 1-X/...

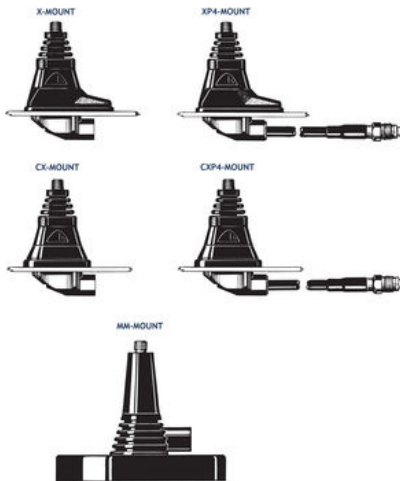
Unity Gain  $1/4 \lambda$  Mobile Antenna for the 450 MHz Band

## DESCRIPTION

- Black-chromed stainless steel whip.
- Type MU 1-X/s covers 370–410 MHz  
Type MU 1-X/l covers 406–440 MHz  
Type MU 1-X/h covers 430–470 MHz  
– no tuning required.
- 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.



All whips are compatible with all mounts.



## ORDERING DESIGNATIONS

MOUNT VERSION	FREQUENCY RANGE		
	370 - 410 MHz	406 - 440 MHz	430 - 470 MHz
X-mount (oblong) with FME-system	MU 1-X/s	MU 1-X/l	MU 1-X/h
CX-mount (circular) with FME-system	MU 1-CX/s	MU 1-CX/l	MU 1-CX/h
XP4-mount (oblong) with 4 m cable and FME-connector	MU 1-XP4/s	MU 1-XP4/l	MU 1-XP4/h
CXP4-mount (circular) with 4 m cable and FME-connector	MU 1-CXP4/s	MU 1-CXP4/l	MU 1-CXP4/h
MM-mount (magnetic) with FME-system	MU 1-MM/s	MU 1-MM/l	MU 1-MM/h

## SPECIFICATIONS

ELECTRICAL	
MODEL	MU 1-X/...
ANTENNA TYPE	$1/4 \lambda$ mobile whip antenna
FREQUENCY	450 MHz-band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (acc. to EIA RS-329-1)
BAND WIDTH	$\geq 45$ MHz @ SWR $\leq 1.5$
SWR	$\leq 1.2$ @ f. res.
MAX. POWER	100 W
MECHANICAL	
MATERIALS	<b>Whip:</b> Stainless steel and black-chromed brass <b>Mount:</b> Black-chromed brass Environment-proof plastics Stainless steel
RECOMMENDED INSTALLATION TORQUE	$4 \pm 1$ Nm
COLOUR	Black
HEIGHT	Approx. 180 mm
WEIGHT	X-version: Approx. 60 g XP4-version: Approx. 200 g MM-version: Approx. 268 g
MOUNTING	18 mm dia. hole

## INSTALLATION

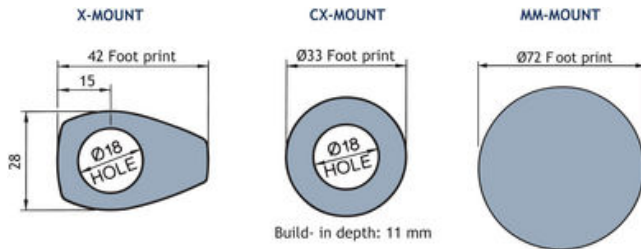
This antenna should always be mounted on the car roof to ensure best omnidirectional coverage.

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.

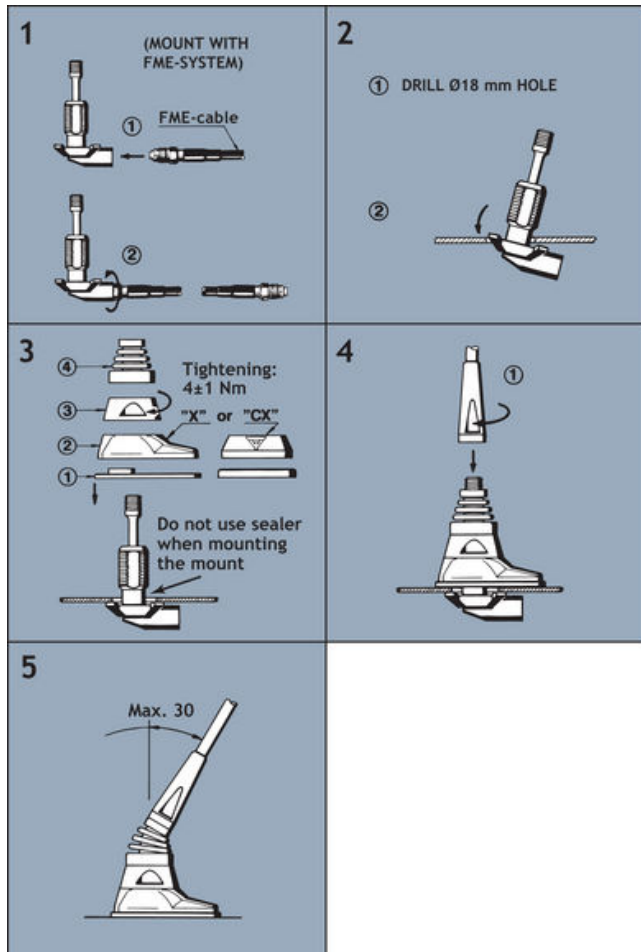
When cleaning the car in car-washing machines, remove the whip using a spanner, size 9 mm. After wash, refit the whip and tighten it lightly with the spanner.

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.

### 1. INSTALLATION DIMENSIONS:



### 2. INSTALLATION STEPS:



Do not use sealer on rubber gasket or other places.

### 3. TUNING/MODEL CONVERSION:

The antenna is delivered factory-tuned and requires no further tuning. To convert an MU 1-X/s model into an MU 1-X/l model, cut off 15 mm of the top end of the whip.

To convert an MU 1-X/l model into an MU 1-X/h model, cut off 11 mm of the top end of the whip.

#### PLEASE NOTE

For safety reasons: When using the MU 1-MM, car speed must not exceed 140 km/h.



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

06/05/2009