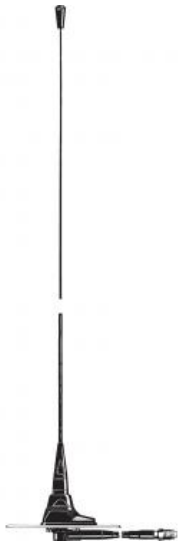
450 MHz 2 dB Mobile Antenna for Glass fibre Roof



DESCRIPTION

- Ground plane independent antenna for installation on non-conducting surfaces.
- Ideal for glass fibre roofs as can be found on some trucks, busses, transport vans and trains.
- Black-chromed, conical stainless steel whip.
- MU 9-XP4R/s can be tuned by cutting within 380…410 MHz.
  MU 9-XP4R/l can be tuned by cutting within 400…440 MHz.
  MU 9-XP4R/h can be tuned by cutting within 430…470 MHz.
- M6-thread whip-fastening system.
- Simple mounting exclusively with access from the outside.
- Models available with oblong or circular mount.
- Delivered with permanently attached 4 m cable terminated with FME-connector (other models on request).

Please note that the MU 9-XP4R type "s"-, "l"- and "h"-mounts contain matching transformers. Consequently, these special mounts cannot operate with other whip types.

ORDERING

Model	Product No.	Description	Frequency
MU 9-XP4R/s	130001549	Oblong mount with 4 m cable and FME-conn.	380... 410 MHz
MU 9-XP4R/l	130001550	Same mount as above	400... 440 MHz
MU 9-XP4R/h	130001551	Same mount as above	430... 470 MHz
MU 9-CXP4R/s	130001094	Circular mount with 4 m cable and FME-conn.	380... 410 MHz
MU 9-CXP4R/l	130001759	Same mount as above	400... 440 MHz
MU 9-CXP4R/h	130001606	Same mount as above	430... 470 MHz
MU 9-CXP1R/s- TNC	130001891	Circular mount with 1 m cable and TNC-male conn. (MOQ 25)	380... 410 MHz
MU 9-CXP1R/l- TNC	130001901	Same mount as above (MOQ 25)	400... 440 MHz
MU 9-CXP1R/h- TNC	130001902	Same mount as above (MOQ 25)	430... 470 MHz

SPECIFICATIONS

Electrical	
Model	MU 9-XP4R/...
Frequency	450 MHz band covered by three models
Antenna Type	End-fed ½λ dipole mobile antenna
Max. Input Power	40 W
Polarisation	Vertical
Impedance	50 Ω
VSWR	≤ 1.3 @ f. res.
Bandwidth	≥ 15 MHz @ SWR ≤ 1.5 ≥ 30 MHz @ SWR ≤ 2.0
Gain (EIA RS-329-1)	2 dB

Mechanical	
Materials	Whip: Black-chromed, conical stainless steel Black-chromed brass Mount: Black-chromed brass Weather- and shockproof plastics Surface treated steel
Cable	4 m cable terminated with FME-connector (Other cable lengths and connector types on request)
Installation Torque	Max. 3 Nm
Colour	Black
Height	Approx. 400 mm / 15.75 in. (see cutting diagram)
Weight	Approx. 0.21 kg / 0.46 lb
Mounting	From outside : 21 mm dia. hole From inside : 14 mm dia. hole
Mounting Plate Thickness	0.6 - 5 mm / 0.02 - 0.20 in.

INSTALLATION

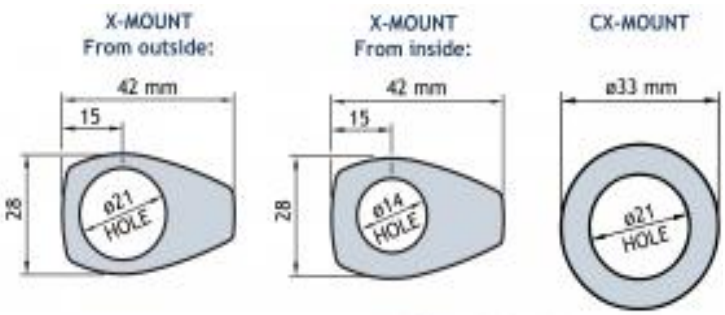
This antenna is especially designed for installation on non-conducting surfaces as e.g. glass fibre roofs, as can be found on some trucks, busses, transport vans and trains.

The antenna is an end-fed, ½ λ-dipole concept which can be fed in such a way that the antenna does not require a “ground plane” as required by the standard 1/4 λ, 5/8 λ or collinear mobile whips.

It is useful to note that this antenna type can be used anywhere where the ground plane is poor or completely missing, as e.g.: side-mounted on a clamp as a pager antenna on a wall or mounted at the very edge of a ground plane without the loss induced by a tilted radiation pattern.

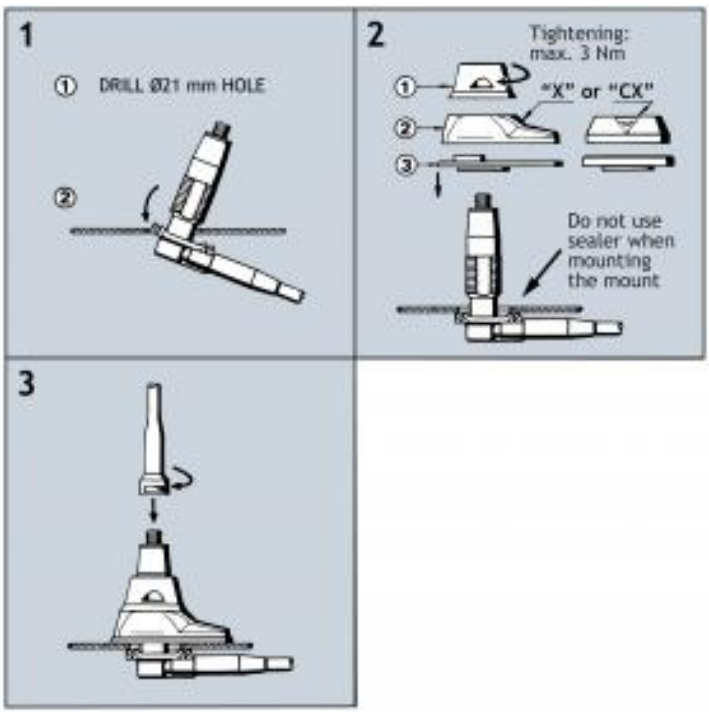
The antenna must be mounted on a horizontal surface. When cleaning the vehicle in car-washing machines, the whip is easily dismounted using a spanner, size 9 mm. The whip is refitted again by screwing it onto the M6 thread stud on the mount and tightening it lightly with the spanner.

1. INSTALLATION DIMENSIONS



Build- in depth: 10.5 mm

2. INSTALLATIONS STEPS (FROM OUTSIDE)



Do not use sealer on rubber gasket or other places.

3. TUNING

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