

900 MHz 2 dB Mobile Antenna for Glassfiber Roof

DESCRIPTION

- Groundplane independent antenna for installation on non-conducting surfaces.
- Ideal for glassfiber roofs as can be found on some trucks, busses, transport vans and trains.
- MU 909-XP4/l can be tuned by cutting within: 820 – 890 MHz.
MU 909-XP4/h can be tuned by cutting within: 870 – 940 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 low loss cable terminated with FME-connector.
- ECE R118.02 approved cable.



SPECIFICATIONS

Electrical	
Model	MU 909-XP4/...
Frequency	820 - 940 MHz - covered by two models
Antenna Type	End-fed $\frac{1}{2}$ λ dipole mobile antenna
Max. Input Power	25 W
Polarisation	Vertical
Impedance	50 Ω
VSWR	≤ 1.2 @ f. res.
Bandwidth	≥ 25 MHz @ VSWR ≤ 1.5 ≥ 50 MHz @ VSWR ≤ 2.0
Gain (EIA RS-329-1)	2 dB

Mechanical	
Compliance	ECE R118.02 approved cable
Materials	Whip: Polyethylene-covered spring steel wire Mount: Black-chromed brass Weather- and shockproof plastics Surface treated steel
Cable	4 m cable terminated with FME-connector
Installation Torque	Max. 3 Nm
Colour	Black
Height	Approx. 260 mm / 10.24 in.
Weight	Approx. 0.2 kg / 0.44 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.

NOTE

Please note that the MU 909-XP4 type "l"- and "h"-mounts contain matching transformers. Consequently, these special mounts cannot operate with other whip types.

ORDERING

Model	Product No.	Description	Frequency
MU 909-XP4/l	130001227	Oblong mount with 4 m cable + FME-connector	820...890 MHz
MU 909-XP4/h	130001222	Same mount as above	870...940 MHz
MU 909-CXP4/l	130001228	Circular mount with 4 m cable + FME-connector	820...890 MHz
MU 909-CXP4/h	130001223	Same mount as above	870...940 MHz

ORDERING DESIGNATIONS

Model	Frequency/ CELLULAR System	Mount
Ready-Tuned Models (examples)		
MU 909-XP4/h, EGSM	EGSM	Oblong mount with 4 m cable + FME-connector
MU 909-XP4/h, ETACS	ETACS, USA	Same mount as above
MU 909-XP4/h, EAMPS	EAMPS, USA	Same mount as above
MU 909-CXP4/h, EGSM	EGSM	Circular mount with 4 m cable + FME-connector
MU 909-CXP4/h, ETACS	ETACS, USA	Same mount as above
MU 909-CXP4/h, EAMPS	EAMPS, USA	Same mount as above

The MU 909-XP4/... is delivered in two field tunable models but may also be delivered readytuned for CELLULAR systems. When ordering a ready-tuned model, the name of the desired CELLULAR system must be added to the antenna model number.

ORDERING NOTE

To help selecting the correct model for a specific cellular network, please consult the survey of cellular network frequencies under USEFUL DATA in our catalogues.

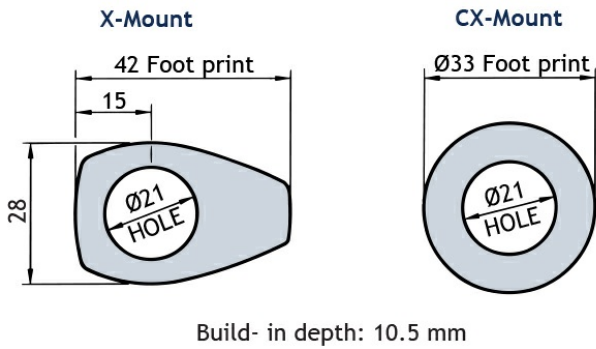
INSTALLATION

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

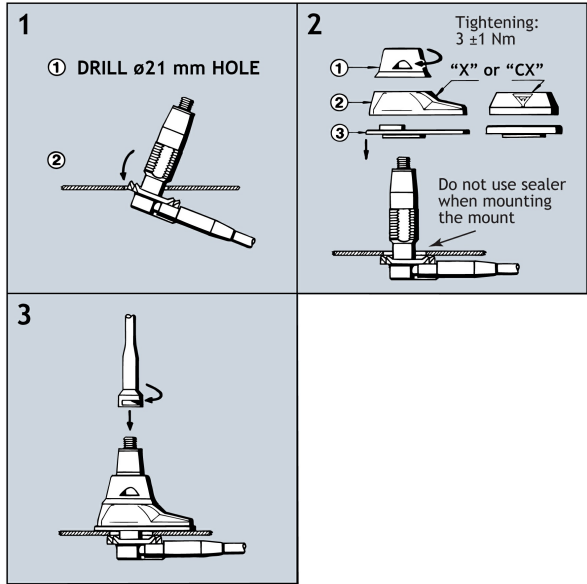
The antenna is an end-fed, 1/2 λ-dipole concept which can be fed in such a way that the antenna does not require a “groundplane” as required by the standard 1/4 λ, 5/8 λ or collinear mobile whips. It is useful to note that this antenna type can be used anywhere, where the ground-plane is poor or completely 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.
A polyethylene-covered, closely spirally wound flat steel-band material causes the whip to always stand erect while at the same time being very flexible.

1. INSTALLATION DIMENSIONS

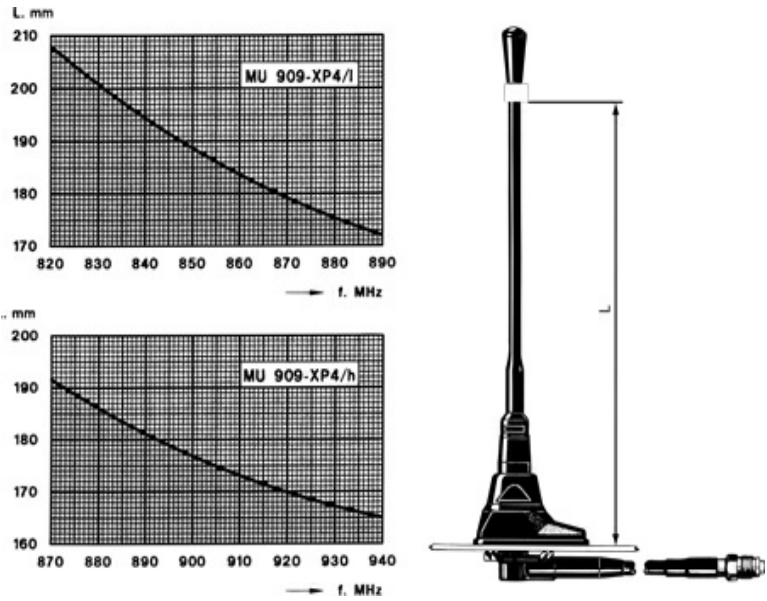


2. INSTALLATION STEPS



Do not use sealer on rubber gasket or other places.

3. TUNING



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