

# MU 909-XP4/...

## 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.

### ORDERING DESIGNATIONS:

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

MU 909-XP4 ORDERING	MOUNT VERSION		Oblong mount with 4 m cable + FME-connector	Circular mount with 4 m cable + FME-connector
	FREQ./ CELL. SYSTEM			
FIELD TUNABLE MODELS	820...890 MHz		MU 909-XP4/l	MU 909-CXP4/l
	870...940 MHz		MU 909-XP4/h	MU 909-CXP4/h
READY-TUNED MODELS (examples)	EGSM		MU 909-XP4/h, EGSM	MU 909-CXP4/h, EGSM
	ETACS, UK		MU 909-XP4/h, ETACS	MU 909-CXP4/h, ETACS
	EAMPS, USA		MU 909-XP4/l, EAMPS	MU 909-CXP4/l, EAMPS

### SPECIFICATIONS:

ELECTRICAL	
ANTENNA TYPE	End-fed 1/2 λ mobile whip antenna
FREQUENCY	820...940 MHz – covered by two models
IMPEDANCE	Nom. 50 Ω
POLARISATION	Vertical
GAIN	2 dB (acc. to EIA RS-329)
BANDWIDTH	≥ 25 MHz at SWR ≤ 1.5 ≥ 50 MHz at SWR ≤ 2.0
SWR	≤ 1.2 at f. res.
MAX. POWER	25 watt
MECHANICAL	
MATERIALS	Whip: Polyethylene-covered spring steel wire
	Mount: Black-chromed brass Environment-proof plastics Surface treated steel
RECOMMENDED INSTALLATION TORQUE	Max. 3 Nm
CABLE	4 m cable terminated with FME-connector
COLOUR	Black
HEIGHT	Approx. 26 cm
WEIGHT	Approx. 200 g
MOUNTING	From outside: 21 mm dia. hole From inside: 14 mm dia. hole
ROOF THICKNESS	0.6 → 5.0 mm

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.

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.



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

# MU 909-XP4/... 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.

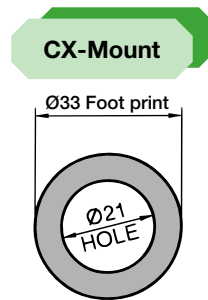
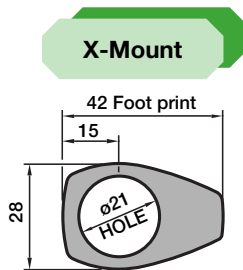
The antenna is an end-fed,  $1/2 \lambda$ -dipole concept which can be fed in such a way that the antenna does not require a "ground-plane" as required by the standard  $1/4 \lambda$ ,  $5/8 \lambda$  or colinear mobile whips.

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.

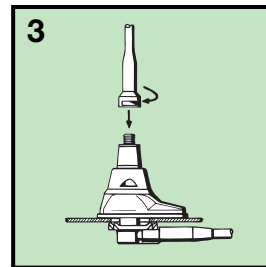
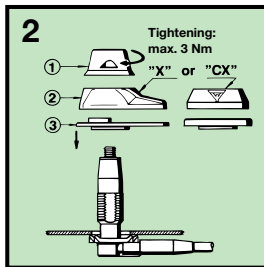
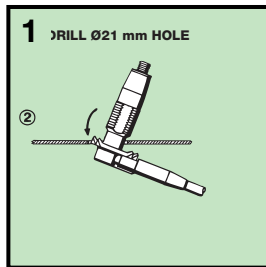
A polyethylene-covered, closely spirally wound flat steel-band material causes the whip always to stand erect while at the same time being very flexible.

## 1. INSTALLATION DIMENSIONS:



Build-in depth: 10.5 mm

## 2. INSTALLATION STEPS:



## 3. TUNING:

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

