

# MU 11-X/...

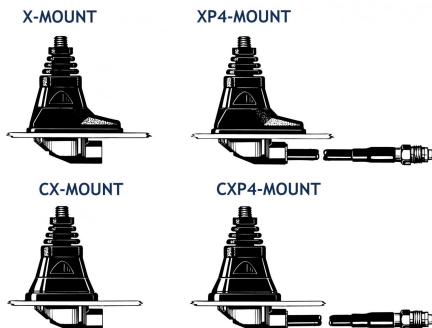
Collinear 4 dB Mobile Antenna for the 450 MHz Band

## DESCRIPTION

- Encapsulated phasing coil.
- Black-chromed, stainless steel whip.
- Choice between general purpose tunable models.
- Stainless steel X-mount with M6-thread whip-fastening system.
- Simple mounting exclusively with access from the outside.
- Models available with X-mount (oblong) and CX-mount (circular).
- Choice between two connection principles:
  - X-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

X-MOUNT (OBLONG) WITH FME	PROUCT NO.	CX-MOUNT (CIRCULAR) WITH FME	PRODUCT NO.	[MHZ]
Models for general application - tunable with adjustment disc:				TUNING
MU 11-X/s	130000813	MU 11-CX/s	130000814	380...410
MU 11-X/f	130000795	MU 11-CX/f	130000796	406...430
MU 11-X/l	130000803	MU 11-CX/l	130001483	420...450
MU 11-X/h	130000799	MU 11-CX/h	130000800	440...470
Models for cellular systems - pretuned, without adjustment disc:				FREQUENCY
MU 11-X/CEL4	130000818	MU 11-CX/CEL4	130001487	414 - 430
MU 11-X/CEL3	130000819	MU 11-CX/CEL3	130001486	425 - 440
MU 11-X/CEL2	130001478	MU 11-CX/CEL2	130001485	440 - 455
MU 11-X/CEL1	130000806	MU 11-CX/CEL1	130001484	450 - 470

XP4-MOUNT (OBLONG) WITH 4 M CABLE AND FME-CONN.	PROUCT NO.	CXP4-MOUNT (CIRCULAR) WITH 4 M CABLE AND FME-CONN.	PRODUCT NO.	[MHZ]
Models for general application - tunable with adjustment disc:				TUNING
MU 11-XP4/s	130000816	MU 11-CXP4/s	130000817	380...410
MU 11-XP4/f	130000797	MU 11-CXP4/f	130000798	406...430
MU 11-XP4/l	130000804	MU 11-CXP4/l	130000805	420...450
MU 11-XP4/h	130000801	MU 11-CXP4/h	130000802	440...470
Models for cellular systems - pretuned, without adjustment disc:				FREQUENCY
MU 11-XP4/CEL4	130000809	MU 11-CXP4/CEL4	130000811	414 - 430
MU 11-XP4/CEL3	130001482	MU 11-CXP4/CEL3	130000812	425 - 440
MU 11-XP4/CEL2	130000810	MU 11-CXP4/CEL2	130000815	440 - 455
MU 11-XP4/CEL1	130000807	MU 11-CXP4/CEL1	130000808	450 - 470

## SPECIFICATIONS

ELECTRICAL	
MODEL	MU 11-X/...
ANTENNA TYPE	Collinear stainless steel whip mobile antenna
FREQUENCY	450 MHz-band covered by four models
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	4 dB (acc. to EIA RS-329-1)
BANDWIDTH	≥ 20 MHz @ SWR ≤ 1.5
SWR	≤ 1.3 @ f. res.
MAX. POWER	100 W
MECHANICAL	
MATERIALS	<b>Whip:</b> Black-chromed stainless steel and brass Durable plastics <b>Mount:</b> Black-chromed brass Weather- and shockproof plastics Stainless steel
RECOMMENDED INSTALLATION TORQUE	4 ± 1 Nm
COLOUR	Black
HEIGHT	Approx. 60 cm (dep. on freq.)
WEIGHT	X-version: Approx. 160 g XP4-version: Approx. 300 g
MOUNTING	18 mm dia. hole

## INSTALLATION

This antenna can be mounted anywhere on the car, however, roof top mounting is always recommended.

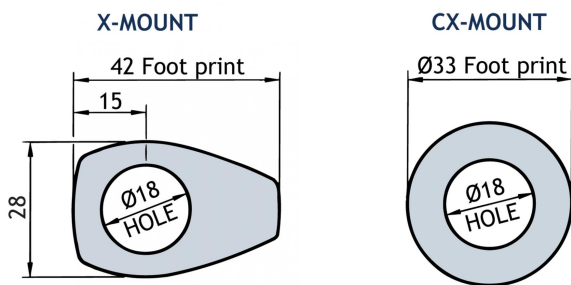
The oblong X-mount can be mounted on the often very narrow strip on the rear wing between the trunk lid and the side of the car.

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.

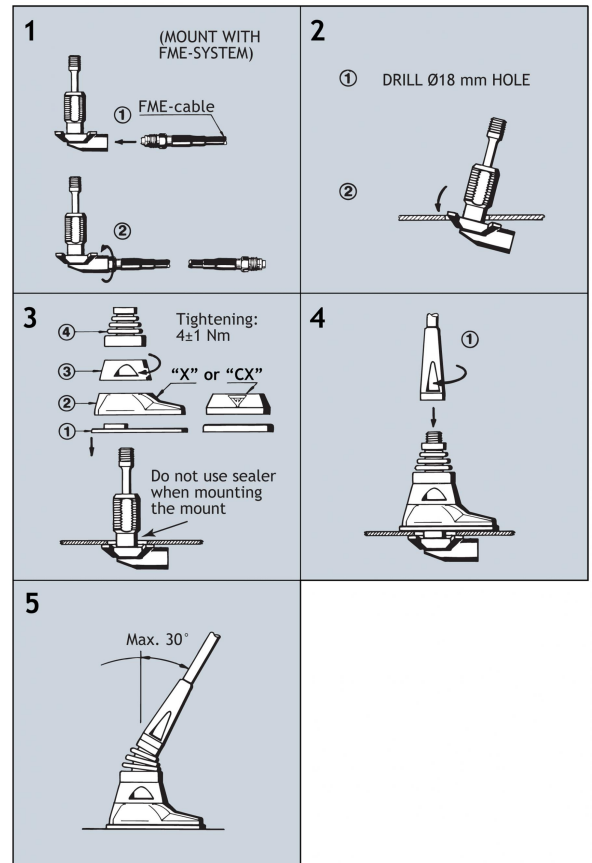
As the mounts are internally equipped with a bendable section, the antennas can always be adjusted to an upright position independent of the tilt angle of the installation spot.

### 1. INSTALLATION DIMENSIONS



Build-in depth: 11 mm

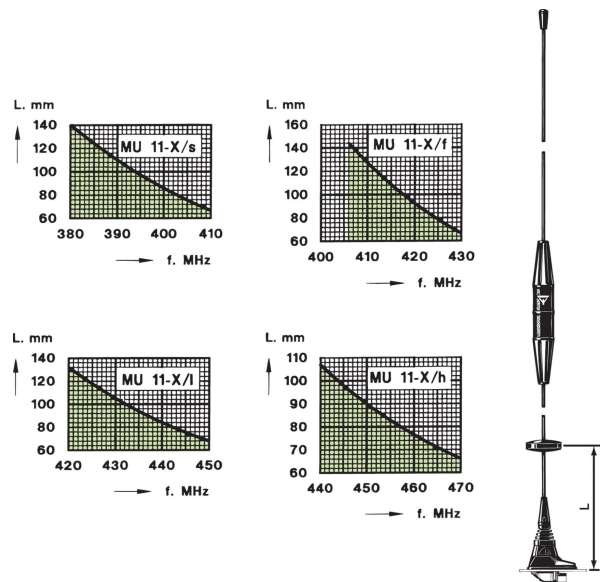
## 2. INSTALLATION STEPS



Do not use sealer on rubber gasket or other places.

## 3. TUNING

The tunable models are tuned to the desired frequency within the indicated tuning range by positioning the adjustment disc according to the diagrams below.



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