

# DFA 450/900-ZG/..

## 450 MHz / 900 MHz Dual-frequency Mobile Antenna

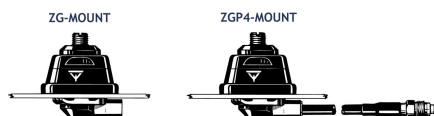
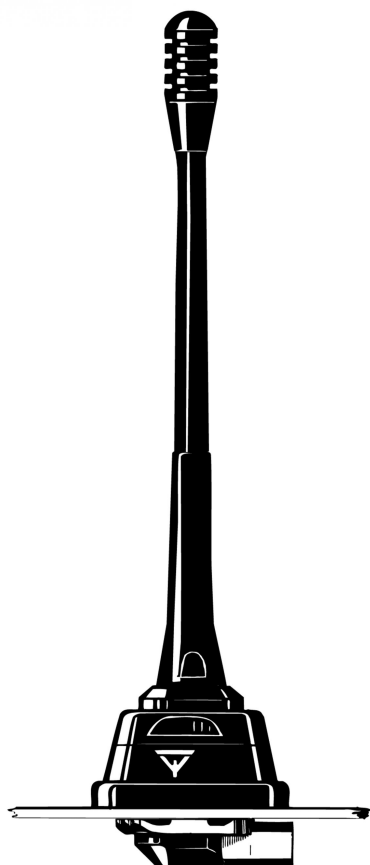
### DESCRIPTION

- This antenna makes it possible to:
  - operate 450 MHz and 900 MHz transceivers alternately on the same antenna
  - operate two transceivers (450 and 900 MHz) at the same time on one antenna using a diplexer
  - (type DIPX 500/800 – to be ordered separately)
  - operate a dual-frequency transceiver (450 and 900 MHz) on one antenna (diplexer not required).
- Ready-tuned and unity gain on both bands.
- Stainless steel ZG-mount with M8-thread whip-fastening system.
- Simple mounting exclusively with access from the outside.
- Choice between two connection principles: ZG-mount : FME-connection (supplied without cable).
- ZGP4-mount : Permanently attached 4 m cable terminated with FME-connector.

### Ordering designations

TYPE NO.	PRODUCT NO.
DFA 450/900-ZG/...	

When ordering, the operating frequencies in both bands must be stated. In case of duplex operation please specify TX and RX frequencies. In case of application for CELLULAR systems please state names of CELLULAR networks.



All whips are compatible with all mounts

### SPECIFICATIONS

ELECTRICAL	
MODEL	DFA 450/900-ZG/...
ANTENNA TYPE	Dual-frequency mobile antenna
FREQUENCY	450 MHz-frequency to be stated within: 380–470 MHz 900 MHz-frequency to be stated within: 800–960 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	Approx. 0 dB in both bands (acc. to EIA RS-329-1)
BAND WIDTH	450 MHz: > 25 MHz @ SWR $\leq$ 2.0 (typ.) 900 MHz: > 80 MHz @ SWR $\leq$ 1.5 (typ.)
SWR	$\leq$ 1.5 on transmitter frequencies
MAX. POWER	50 W
MECHANICAL	
MATERIALS	<b>Whip:</b> Black glassfiber Black-chromed brass <b>Mount:</b> Black-chromed brass Environment-proof plastics. Stainless steel
RECOMMENDED INSTALLATION TORQUE	7.5 $\pm$ 1 Nm
COLOUR	Black
HEIGHT	Approx. 160 mm
WEIGHT	ZG-version: Approx. 70 g ZGP4-version: Approx. 250 g
MOUNTING	21 mm dia. hole

### FME-SYSTEM ACCESSORIES

FME-CABLES		FME-CONNECTORS	
LENGTH	TYPE NO.	CONNECTOR	ORDER NO.
1 m	1 m FME	FME-FME	FME-FME
2 m	2 m FME	Prolongation	FMEP
3 m	3 m FME	N	FME-N
4 m	4 m FME	FSMA	FME-FSMA
5 m	5 m FME	BNC	FME-BNC
6 m	6 m FME	TNC	FME.TNC
4 m white	4 m FME-white	UHF	FME-UHF
6 m white	6 m FME-white	Mini-UHF	FME-MUHF
12 m white	12 m FME-white	Elbow-MUHF	FME-EMUHF
18 m white	18 m FME-white	Elbow-BNC	FME-EBNC
		Elbow-TNC	FME-ETNC
		SMA	FME-SMA

For further information about other types of FME-cables please compare the cable data sheets under accessories in our catalogue.

### INSTALLATION

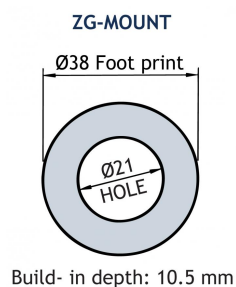
The ZG-mount is designed for mounting in a 21 mm dia. hole on horizontal surfaces as e.g. roof top or trunk lid, with access from the outside only.

A good contact surface on the inside of the car body must always be ensured, thus enabling the base plate to get in direct contact with the metal parts of the car, which is of utmost importance for proper performance of the antenna.

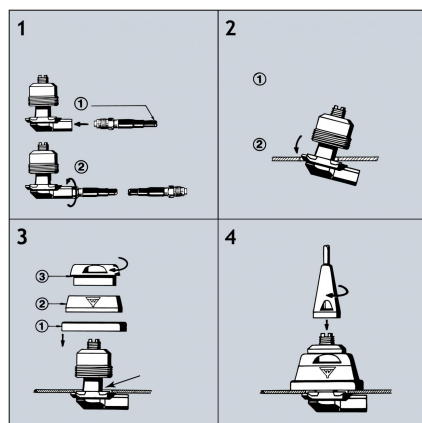
The ZG-mount is provided with an M8 x 1 thread mount system. This construction meets the demand for a low profile mobile mount with a slim appearance and with protection against theft of the antenna whip.

When cleaning the car in car-washing machines, the whip is easily removed using a fork spanner. The whip is refitted again by screwing it onto the thread stud and tightening it with the spanner.

## 1. INSTALLATION DIMENSIONS



## 2. INSTALLATION STEPS

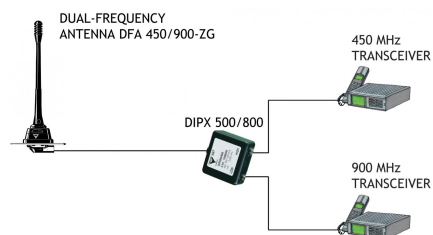


Do not use sealer on rubber gasket or other places.

Several advantages are gained by using only one antenna. Only one single hole has to be drilled into the car body, only one cable installation has to be run, the car appearance is not destroyed by carrying several whips and also, it may be a particular demand that it should not be too obvious to see that the car is equipped with transceiving equipment.

In case of operating two transceivers on one antenna at the same time, a diplexer, type DIPX 500/800, is necessary to complete the system. (See the coupling diagram below). The tasks of the diplexer are to protect the two receiver inputs from being destroyed by the transmitter in the contrary band, and to ensure a low-loss path between the transceiver and the antenna, which is not loaded by the other branch. For further details please see the separate data sheet on the DIPX 500/800. The diplexer fully covers both bands and, consequently, tuning to specific frequencies is not required.

### COUPLING DIAGRAM



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