

# GF 401/...

0 dB Mobile GlassFix® Antenna for the 450 MHz Band

## DESCRIPTION

- Half-wave, 0 dB mobile antenna for the 450 MHz band using the GlassFix® mounting principle.
- Mounting on car window glass – no holes required.
- Double-adhesion procedure ensures fast and reliable fixing.
- Internal matching unit feeds external antenna through window glass.
- Half-wave design – no ground plane required.
- High positioning gives performance equal to conventionally mounted car roof antenna.
- FME FastCabling system (cable to be ordered separately).
- Simple tuning procedure by means of tuning screw on matching unit.
- Easy removable whip for car wash.
- Swivel joint for 180° angle adjustment.
- If removal of antenna installation is necessary, a quick dismantling procedure leaves no trace of the installation.



### NOTE:

GF antennas are not suitable for car models with windows that have heat reflective coating.

## ORDERING DESIGNATIONS

TUNING RANGE	TYPE NO.
380 ... 410 MHz	GF 401/s
406 ... 470 MHz	GF 401/l
430 ... 470 MHz	GF 401/h

To select the correct model for a specific CELLULAR network please consult the survey of cellular network frequencies which can be found under USEFUL DATA in our catalogues. This survey also states preferred tuning centre frequencies.

## SPECIFICATIONS

ELECTRICAL	
MODEL	GF 401/...
ANTENNA TYPE	1/2 λ mobile GlassFix® antenna
FREQUENCY	450 MHz band covered by three tunable models
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	0 dB (acc. to EIA RS-329-1)
BANDWIDTH	≥ 10 MHz @ SWR ≤ 1.5 ≥ 18 MHz @ SWR ≤ 2.0
SWR	≤ 1.3 @ f.res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	<b>Whip:</b> Stainless steel and black-chromed brass <b>Mount and indoor unit:</b> Environment-proof plastics Corrosion-safe and corrosion-protected metals
CABLE	FME-cable to be ordered separately
COLOUR	Black
HEIGHT	Approx. 28 cm
WEIGHT	Approx. 65 g
MOUNTING	On car windows with silicone glue (52 mm x 47 mm obstruction-free mounting area required)
GLASS THICKNESS	2.5 – 7.0 mm

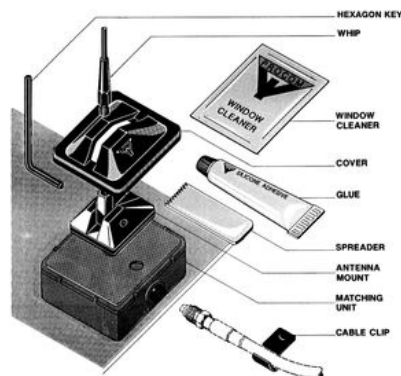
## FME-SYSTEM ACCESSORIES

FME-CABLES	
LENGTH	TYPE NO.
1 m	1 m FME
2 m	2 m FME
3 m	3 m FME
4 m	4 m FME
5 m	5 m FME
6 m	6 m FME
4 m white	4 m FME-white
6 m white	6 m FME-white
12 m white	12 m FME-white
18 m white	18 m FME-white

FME-CONNECTORS	
CONNECTOR	ORDER NO.
FME-FME	FME-FME
Prolongation	FME-P
N	FME-N
FSMA	FME-FSMA
BNC	FME-BNC
TNC	FME.TNC
UHF	FME-UHF
Mini-UHF	FME-MUHF
Elbow-MUHF	FME-EMUHF
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.

## ASSEMBLY DETAILS

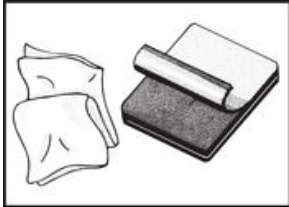


## INSTALLATION

### 1. BEFORE INSTALLATION

- When selecting mounting location take into consideration: positions of back view mirror, wiper blade paths and defogger wires (when mounting on rear window). The driver's view should not be obstructed.
- Max. allowed curvature of the glass surface on the mounting spot is 2 mm deflection per 100 mm length.
- Environmental- and car temperature must be above 15° C at installation, and surfaces to be glued must be dry and clean.

### 2. INSTALLATION



1. Clean both sides of the windscreen, where the antennamount and the matching unit are to be fitted, and then remove the protective foil from the antenna mount.



2. Fit mount to screen and press firmly. Apply glue along the edge between mount and glass.



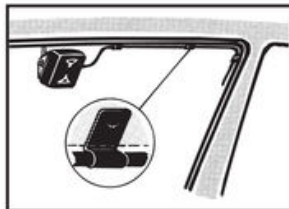
3. Apply glue to the cover.



4. Fit the cover and press down firmly. The antenna whip can now be fitted.



5. Remove the protective foil on the matching unit.



6. Fit matching unit by pressing it firmly into position. Secure cable using clips provided.

### 3. AFTER INSTALLATION

- Allow the silicone gluings to dry off 2 hours at a temperature above 15° C. To ensure full strength of the glue, it is recommended to keep the whip off the mount for 24 hours.

### 4. TUNING INSTRUCTIONS

- Insert a forward/reflection-type wattmeter between the transmitter and the antenna.
- Key the transmitter and observe the forward and the reflected power.
- Adjust the tuning screw on the matching unit until minimum returned power is obtained.

### REINSTALLATION KIT

A reinstallation kit including all necessary parts for transfer of the antenna to another vehicle is available under order No. »GF-RK«.

### WARNING

#### SAFETY PRECAUTIONS

Antennas mounted on the windscreen may cause relatively high field strengths in the passenger cabin and near the dashboard.

1. To prevent health hazard due to RF radiation, persons must not be closer than 30 cm to the antenna whip (transmitter output power to the matching unit: 20 watts). (DIN 57 848).
2. The RF signals at the dashboard may cause interference in the car's electronic equipment such as broadcast radio, computer automatics, braking systems, electronic ignition, relays etc. Some cars are more susceptible to disturbances than others. It is the responsibility of the installer to carry out a thorough check of the proper functioning under any conditions of such circuits before finishing installation.

The enclosed silicone adhesive contains acetic acid and fungicides. Keep out of reach of children and dispose properly.



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

29/11/2010