

GF 2/70

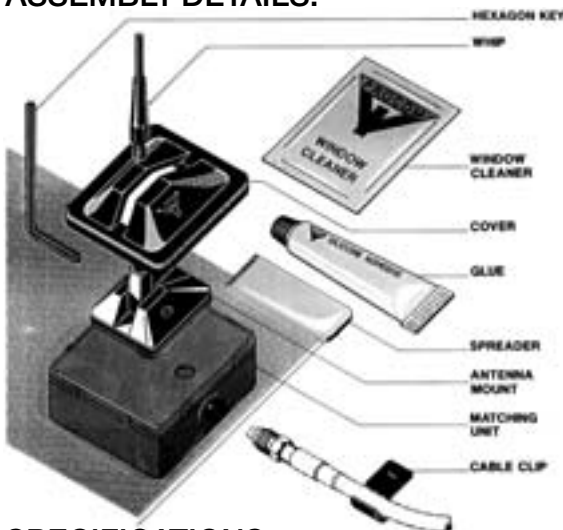
Dual-frequency Mobile GlassFix® Antenna for the 2 m and 70 cm Amateur Bands

PROCOM

DESCRIPTION:

- ★ Dual-frequency mobile antenna for the 2 m and 70 cm amateur bands using the GlassFix® mounting principle.
- ★ Makes it possible to:
 - operate 2 m and 70 cm transceivers alternately on the same antenna
 - operate two transceivers (2 m and 70 cm) at the same time using a diplexer (type DIPX 225/330 – to be ordered separately).
- ★ 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.
- ★ Shortened half-wave (2 m) / half-wave colinear design (70 cm) – 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 two tuning screws 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.

ASSEMBLY DETAILS:



FME-SYSTEM ACCESSORIES

FME-CABLES

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

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

FME-CONNECTORS

CONNECTOR	ORDER NO.
FME-FME	FME-FME
Prolongation	FMEP
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

SPECIFICATIONS:

ELECTRICAL

ANTENNA TYPE	Dual-frequency mobile GlassFix® antenna
FREQUENCY	2 m amateur band : 144–146 MHz 70 cm amateur band : 432–438 MHz
IMPEDANCE	Nom. 50 Ω
POLARISATION	Vertical
GAIN	2 m: equal to shortened roof-mount antenna 70 cm: 1 dB (acc. to EIA RS-329)
BANDWIDTH	2 m: 3 MHz, 70 cm: 6 MHz (at SWR ≤ 2.0)
SWR	≤ 1.3 at f. res.
MAX. POWER	2 m: 20 watt, 70 cm: 20 watt

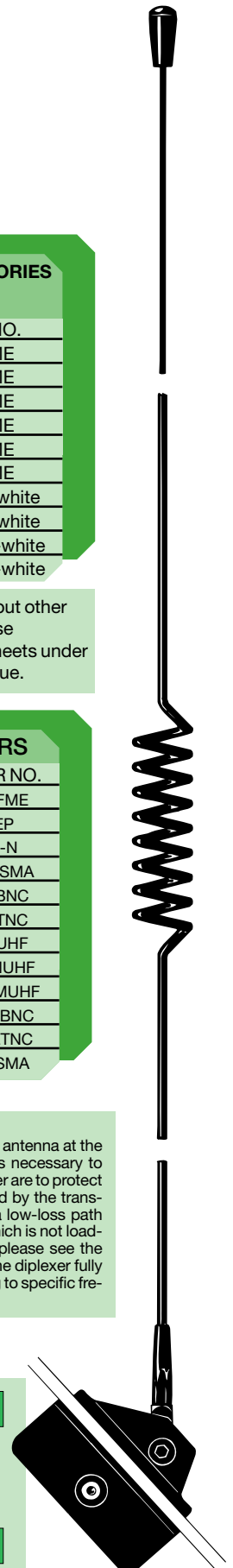
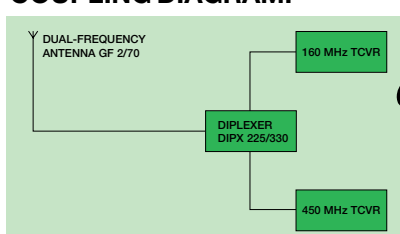
MECHANICAL

MATERIALS	Whip: Stainless steel and brass, black-chromed Mount and indoor unit: Environment-proof plastics, Corrosion-safe and corrosion-protected metals
CABLE	FME-cable to be ordered separately
COLOUR	Black
HEIGHT	Approx. 78 cm
WEIGHT	Approx. 125 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

OPERATION USING A DIPLEXER:

In case of operating two transceivers on one antenna at the same time, a diplexer, type DIPX 225/330 is necessary to complete the system. 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 225/330. The diplexer fully covers both bands and, consequently, tuning to specific frequencies is not required.

COUPLING DIAGRAM:



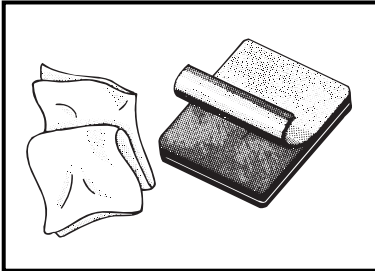
GF 2/70 Installation



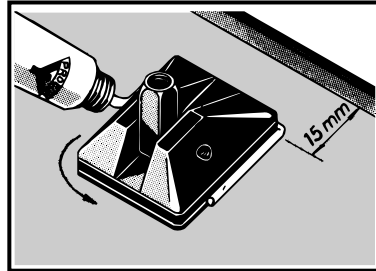
1. BEFORE INSTALLATION:

- ★ When selecting mounting location take into consideration: positions of back view mirror, wiper blade paths and defogger wires (when mounting on rear window). A minimum distance of approximately 5 mm to the defogger wires is recommended. 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.

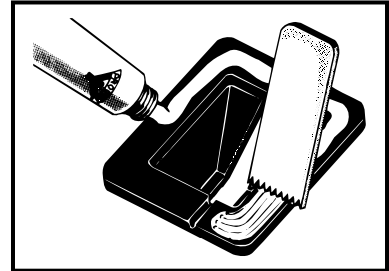
2. INSTALLATION:



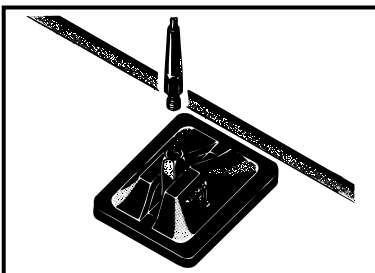
1. Clean both sides of the windscreen, where the antenna mount and the matching unit are to be fitted, and then remove the protective foil from the antenna mount.



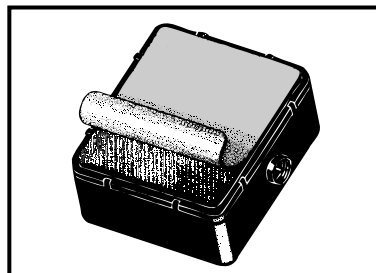
2. Fit mount to screen and press firmly. Apply glue along the edge between mount and glass.



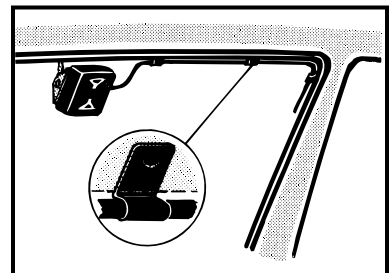
3. Apply glue to the cover.



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:

- ★1. Insert a forward/reflection-type wattmeter between the transmitter and the antenna.
- ★2. Key the transmitter on the 2 m band and observe the forward and the reflected power.
- ★3. Adjust the tuning screw marked "2 m" on the matching unit until minimum returned power is obtained.
- ★4. Repeat steps ★2. and ★3. with the transmitter on the 70 cm band and using the tuning screw marked "70 cm".
- ★5. Check that the reflected power is still minimum at the 2 m band. Fine-tune using the "2 m" tuning screw if necessary.

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 watt). (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.