

## Portable Multi-Band HF Antenna HF-PRO-2

### Specifications

Frequency range	7-30 + 50 MHz
Max. Power Rating	130W (SSB)
Impedance	50 $\Omega$
Length	2,6 m
Weight	425gr
Connector	PL-259
Type	Loaded 1/4 wave vertical on 7-30MHz Full 1/4 wave vertical on 50Mhz.
Antenna elements	Supplied are: A Large Whip = PWR-01002 (used for 7-30MHz) A Short Whip = PWR-01003 (used for 50MHz)
Coil form composition	FRP (Fiber Reinforced Polymer)

### Notes for Using the Antenna

To use your **HF-PRO-2**<sup>®</sup> from Komunica<sup>®</sup> antenna correctly, please read these instructions thoroughly before use and keep this document on-hand for later reference.

The **HF-PRO-2**<sup>®</sup> from Komunica<sup>®</sup> is intended for use by Radio Amateurs only within their authorised frequency bands. For use on some amateur bands an antenna tuning unit may be required.

Please note:

1. The **HF-PRO-2**<sup>®</sup> has been designed as a stationary antenna and is not designed for use on a moving vehicle.
2. You are recommended to only install the antenna on your vehicle with a mount that is earthed or on a magnetic base once you have parked your vehicle.
3. The **HF-PRO-2**<sup>®</sup> should not be permanently installed as a home station antenna as it is not designed to withstand rain and winds.
4. Do not touch the antenna during transmission. Doing so can cause an electric shock and/or an RF burn.
5. When mounting or detaching the antenna, take care not to cause personal injury with the whip.
6. To get the best performance from the **HF-PRO-2**<sup>®</sup> use of an Antenna Coupler (ATU) is recommended.

### Description

1. The **HF-PRO-2**<sup>®</sup> can be operated on a wide frequency range of 7-30 and 50MHz. This antenna is to be used for "Static mobile" or portable operation, never when you are mobile as mechanically the antenna has not been designed for use on moving vehicles. It is the owner's responsibility to use this antenna only in an appropriate and responsible manner.

2. The operational frequency is easily adjusted by moving the loading coil up or down as required and by using an antenna tuning unit if one is connected.

3. When operating on 50MHz, please ensure that the short top element (PWR01003) is installed above the lower element (PWR01001) and that the coil is slid down to its lowest point (i.e. fully retracted).

4. Thanks to the fiber reinforced polymer (FRP) material with which Komunica<sup>®</sup> has manufactured its **HF-PRO-2**<sup>®</sup>, the antenna is both lightweight & flexible and is small when packed away making it easy to carry when not in use.

## Adjustment

1. Connect your **HF-PRO-2®** to a magnetic base or SO239 type mounting bracket with a good connection to the chassis of your vehicle. Install the appropriate radiating elements to the body of the antenna (short top section when operating on 6 metres, long top section for the HF bands).

2. To select the right frequency, you'll need to set the position of the antenna body scale to coincide with the value shown in the chart on the right.

3. Loosen the locking ring half a turn by hand.

4. Slide the antenna body to the required scale marking for your frequency and tighten the locking ring half a turn by hand again. It is important for electrical connectivity as well as stability, that the locking ring is re-tightened. (Do not use any tools such as pliers as the antenna may be damaged).

5. When fine-tuning always perform your TX tests with the RF power set as low as possible. Move the coil up or down until the lowest VSWR at the desired frequency is obtained.

6. Once the tuning is OK, increase the power up to your operating power. (Max. Power Rating: 130W - SSB).

7. When adjusting for the 50MHz Band, lower the loading coil to the bottom, remove the large upper element (PWR01002) if fitted and replace it with the short element (PWR01003).

## Recommendations

When transmitting, use of an antenna tuner will simplify operation.

Due to its broadband design in some cases radiation efficiency of the antenna may be reduced.

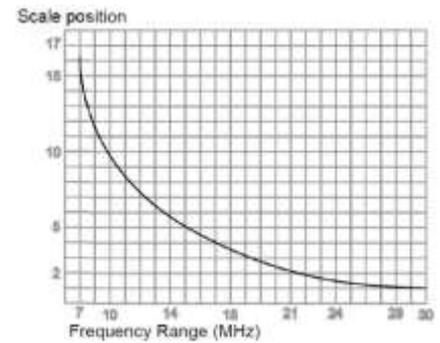
Although the **HF-PRO-2®** has been manufactured under strict quality control, if damage is caused in transit, please contact your dealer promptly.

Do not use this antenna if it is damaged.

Design and specifications of this antenna can be changed at any time without previous notice.



## Coil position chart



This chart describes the settings for the antenna when mounted on a magnetic mount in the centre of the metal roof of a vehicle. These values can be different if the antenna is mounted elsewhere on the vehicle or if used off the vehicle without the metal roof acting as a ground plane (example on a balcony rail or tripod mounted). It is recommended that after installation you test your mounting points effectiveness as a ground plane by the use of an antenna analyser or an SWR bridge and low power from your transmitter.

If you receive an SWR reading above 2:1 you should investigate a different mounting point or use an antenna tuning unit to produce a better match to the **HF-PRO-2®**.

## Installation options.

1. Install the **HF-PRO-2®** onto a SO-239 socket mount, where there is a good ground plane such as with a magnetic base mount in the centre of the vehicle's roof, using a trunk or bonnet-lip mount or luggage or bull-bar rail. Remember the mounting point needs to provide an effective ground plane for the antenna to work against. If no other option is available, feeding the antenna with 10 or more metres of co-axial cable may work with the coax-screen acting as the counterpoise.

2. Your **HF-PRO-2®** may also be mounted on a metal railing such as on a balcony. In such a case a L-shaped bracket will need to be fabricated that is both strong enough to support the antenna and provide an electrical connection to the rail for the antenna.

You may choose to use an antenna tuner together with the **HF-PRO-2®** for maximum flexibility.



Errors and omissions excepted (E & OE).