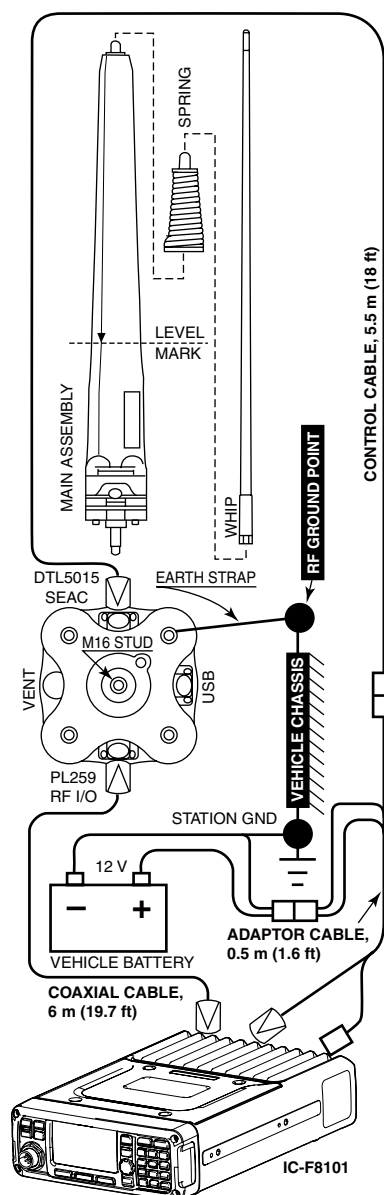


### HF AUTOMATIC TUNING ANTENNA AH-760

Thank you for purchasing the AH-760 HF AUTOMATIC TUNING ANTENNA. The AH-760 operates with your transceiver between 1.6 and 30 MHz. Please read this guide thoroughly before installing and operating the AH-760.

#### IMPORTANT!

The antenna is a critical element in any communication system. Correct installation is very important factor for achieving the utmost in antenna system performance and operation of your transceiver. We recommend that installation of the AH-760 HF AUTOMATIC TUNING ANTENNA be carried out by qualified technicians only.



#### Useful Tips:

1. When the antenna is not being used, remove the whip section.
2. Regularly check all bolt joints and cables/connectors.
3. To improve short distance communications (30–300 km), order the optional AH-5NV. Use original accessories and feel free to ask for assistance.

## ■ PRECAUTIONS

**⚠ DANGER HIGH VOLTAGE! NEVER** touch the antenna terminal, ground terminal or antenna while transmitting. Place the AH-760 in a position where no one can touch them.

**NEVER** use the antenna system without a ground connection.

**USE** the ground terminals for the ground connection. The mounting plate is not internally connected.

**DO NOT** operate your HF transceiver without running the vehicle's engine. When the transceiver's power is ON and your vehicle's engine is OFF, the vehicle's battery will soon become exhausted.

**DO NOT** use the AH-760 in areas where the temperature is below  $-30^{\circ}\text{C}$  or above  $+60^{\circ}\text{C}$ .

#### FOR TRAFFIC SAFETY

Use the original Antenna Mounting Systems, which cover most of installations scenarios on virtually any type of vehicle to ensure the best communications and compliance with traffic safety guidelines.

## ■ INSTALLATION

Select or fabricate a strong metal bracket for the antenna plate, about 8–10 mm (0.31–0.39 inches) thick, and weld or bolt it firmly to the vehicle chassis or other strong structure. For the greatest radiation effectiveness, position antenna as high as possible. For human safety, mount the antenna at the front and opposite side of the steering wheel, whenever possible. Refer to the pictorial installations and scenarios shown in the overleaf. Make sure to allow enough clearance around antenna so that any antenna flexing will not damage the vehicle — bear in mind that Main Assembly can flex as much as 16 cm (0.63 inches), without damage. Make sure the upper 2/3rds of the antenna Main Assembly is as far from the vehicle's vertical and horizontal metal panels as possible. Use the antenna Level Mark for reference. Mount the antenna on the bracket plate provided with a 17 mm (0.67 inches) hole for the M16×2 mm (M0.63×0.08 inches) threaded mounting stud. Rotate the Main Assembly until VENT and EARTH STRAP are directed towards the vehicle body, and then firmly tighten the stud nut. Use only the original hardware and proper tools.

#### RF-GROUND:

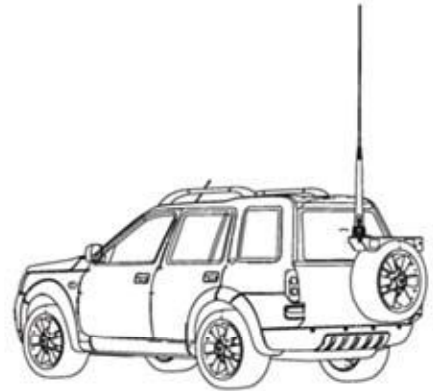
It is absolutely essential that the antenna is connected to an effective and stable RF GROUND POINT — the vehicle chassis. It is further recommended that body panels are also bonded to the vehicle chassis. Make sure all contact points are free of paint and ground to a shiny finish and protected from rusting with conductive grease, before bolting the mounting stud and ground strap terminals.

#### CABLING:

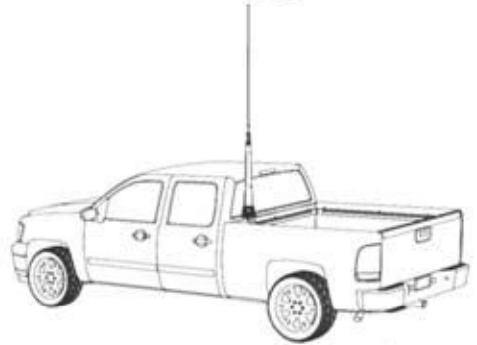
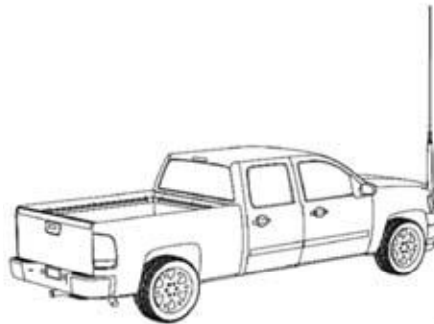
Three cables are supplied with each antenna — a coaxial cable, a control cable and an adapter cable. A ground strap is provided on the base of the antenna to ensure a reliable connection with the vehicle's metalwork. Connect the ground strap to both the chassis frame and the cabin metalwork, whenever possible. Avoid feeding the antenna cables together with the engine ignition cabling routes. Use a ground terminal for the entire HF system where your transceiver is installed. Feed both (B+ and B-) thick wires from the vehicle battery to the R/T location. Do not use the vehicle's metalwork as a replacement of the B- wire. Refer to typical correct installation cabling diagram for the location of antenna cables and connection points.

## ◇ Typical Installation Scenarios for AH-760 HF AUTOMATIC TUNING ANTENNA

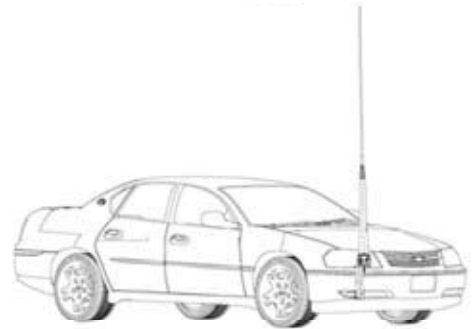
Most recommended SUV installation scenarios use a Universal Gibbet Mounting System (front) or the Spare Wheel Antenna Bracket (rear). Note the upper 2/3rd of the Antenna Main Assembly is kept clear of the vehicle's hood and other metal panels. Best communications in all directions is ensured.



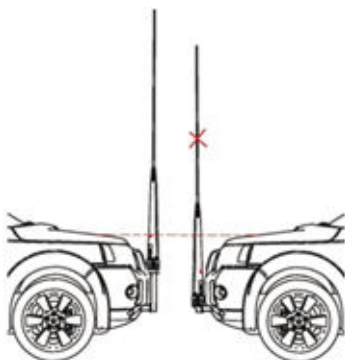
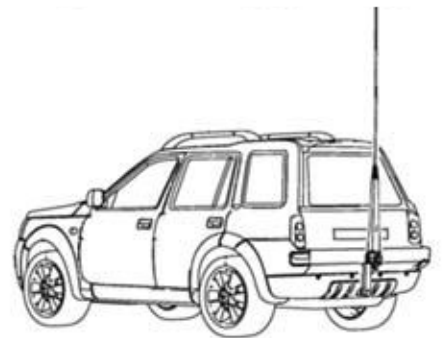
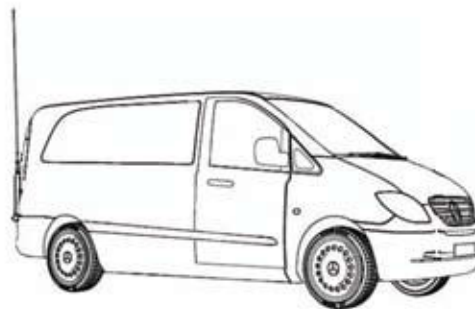
Recommended installation options on typical pickup vehicle using a Universal Gibbet Mounting System (front) and a customer provided bracket (middle). Both methods provide effective communications in all directions.



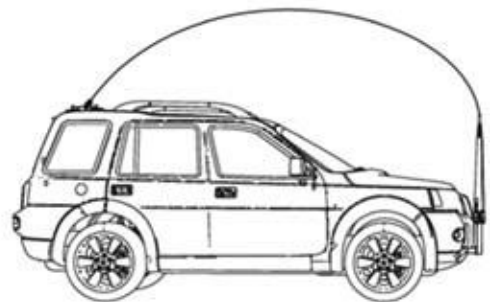
Recommended installation options on a typical sedan vehicle use a Universal Gibbet Mounting System for both front and rear antenna locations. Note the upper 2/3rd of the Antenna Main Assembly is optimally raised above the trunk and hood of the vehicle.



**NON-RECOMMENDED** installation methods using a Universal Gibbet Mounting System (both at the rear) shown on a typical minivan or 4WD vehicles. Note the entire Antenna Main Assembly and partially Whip Section are **OBSTRUCTED** by vehicle metal panels. Communications will be affected.



For best communications, position the antenna as high as possible. Please use a Level Mark triangle as a reference when selecting a Universal Gibbet Raiser. The picture to the left indicates the preferred option selection. The picture to the right indicates an antenna installation that uses the optional NVIS-kit, for best communications on the 30–300km short ranges, and up to 1500 km medium ranges. Note, with the NVIS-kit installed, the antenna upper tuning range will be limited to 16 MHz.



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