



Thank you for purchasing the Diamond Antenna product. Before using, please read carefully these OPERATING INSTRUCTIONS to operate properly.
SAVE THESE INSTRUCTIONS.

● Description

1. Conventionally, HF band antennas had to be securely grounded. However, by attaching MAT50, on top or side of the vehicle body, there will be excellent body ground by capacitive coupling between the body sheet and the metal surface of the vehicle body.
It can also be used to compensate for the lack of ground.
2. Simply sticking the MAT50 to the vehicle, you can take the ground of the body up to 7-30MHz band. 50MHz can be used with a connection cable of 20mm or less. Furthermore, by using two sets of MAT50, the grounding effect up to 3.5MHz band can be obtained and operation becomes possible. 50MHz cannot be used when using 3.5MHz band.
3. Because it is a magnet type, installation and removal can be done very easily, and the vehicle body will not be damaged.
4. Ideal for roof rails, roof carriers, and magnet bases that could not be grounded before.
5. The seat side is very compact 80mm x 195mm. There is no worry of peeling off at a speed of 100 km / h.

● Installation

1. Clean the metal surface of the vehicle body to which the MAT50 body sheet is attached in advance, and remove dust, oil, and dirt. Also make sure that there is no dirt, fine metal fragments, or other foreign matter on the surface of the sheet. Also make sure that there is no dirt, fine metal fragments, or other foreign matter on the surface of the sheet.

* Check that the seat body is in close contact with the vehicle body.

2. Remove the nuts (M16) securing the cable set connector on the base you are currently using.
3. Insert the MAT50 connection cable end into the connector and fasten it together with the nut (M16) you removed earlier.

Please refer to the installation example below.

When using in the 50 MHz band, cut the length of the connection cable to 20 mm or less (the length to which the main unit seal is attached) and connect the attached terminals by soldering or crimping.

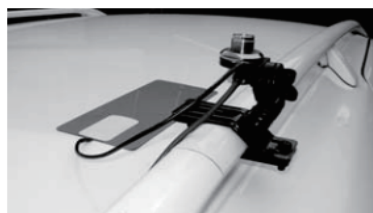
Please note that if you use it with 30mm, SWR deteriorates and the resonance frequency becomes low, and the frequency may not be adjusted.



Installed upper part



Installed lower part



Installation on roof rail



Installation on magnet bracket

● Operation check

After completing the MAT50 installation, actually transmit (at low power) at the frequency to be used and measure the SWR. If the SWR is poor, try changing the attachment position of the seat body and the routing of the connection cable.

If the coaxial cable and connection cable are bundled, SWR may deteriorate. Please be careful.

● Specification

Frequency	: 7~50MHz
Max. power rating	: 500W(SSB), 200W(FM/CM)
Ambient temperature	: -20 to +90°C
Adhesive performance	: 110km/h (with no wind)
Dimensions	: 800 x 195mm (sheet size)
Cable length	approx. 30cm
Weight	55g
Accessory	16mm lug heat shrink tubing



Cautions

1. This product has a sticking prevention process, but depending on the situation, it may damage the painted surface, such as sticking to the painted surface, sunburn, or fading.
2. If this product is attached with the surface to be adhered dirty or with moisture, the sticking power will decrease and cause peeling.
3. Do not attach the seat body across the joints of the vehicle body such as doors and trunks. The sticking power will decrease and cause peeling.
4. When removing this product, do not hold the cable part, but the sheet itself.
5. This product is fixed to the metal surface of the vehicle body by the magnetic force of the sheet. Therefore, it cannot be fixed to parts such as glass, FRP, and aluminum. There will be no grounding effect.
6. When using this product, periodically check and inspect the attachment of the sheet body.

- Though these products purchased are manufactured under strict quality control, if damage is caused by transporting, ask your dealer promptly.
- Design and specifications of these products will be changed for future improvement without advance notice.