

# MOTOR DRIVE MOUNT K9000

**DIAMOND**  
ANTENNA

Mount Bracket KTH/KRS/KRR

## OPERATING INSTRUCTIONS

The OPERATING INSTRUCTIONS give you information on handling mount bracket and accessories. Before using them, please read carefully these OPERATING INSTRUCTIONS to operate properly. SAVE THESE INSTRUCTIONS.

This mount bracket is for use in fixing an amateur radio antenna at the specified location. We shall have no liability for any damage if any incorrect antenna is mounted on the mount bracket, if the mount bracket is mounted at the incorrect location, or if the mount bracket is used for the other purposes.

### ! Important Safety Instructions

To prevent any accident, pay attention to the following instructions.

- Do not handle during driving. It may cause an accident.
- Do not travel with the antenna exceeding the specified length and weight. The mount bracket may be damaged and it may cause an accident.
- An installation of the antenna and mount bracket should not exceed the width and length of the car, and they should be kept away from humans. It may cause an accident.
- The end of the antenna folded should not exceed the width and length of the car. It may cause an accident.
- Do not drive a car with the antenna folded. It may cause an accident.
- Vibration during driving may cause looseness of bolts and screws. Check on them before use and fasten if they are loose.
- If the antenna and mount bracket receive a sharp impact, they may be broken and fall off, causing personal injury and damage. Drive carefully and avoid hazardous branches of trees.
- If the antenna receives constantly strong vibration caused by diesel engine vehicles, it may be broken. Install the antenna far away from the source of vibration.
- If somebody touches the antenna during transmitting, she/he may receive electric shock. When you operate the antenna during parking, be sure nobody is around the antenna.
- Wire safely the coaxial cable to prevent your driving from any trouble.
- Do not install the antenna, mount bracket and wire coaxial cable close to the other electric circuit wiring and switch boxes. Their contact may result in a risk of fire or electric shock.

### ! Caution

To prevent any damage of the mount bracket, pay attention to the following instructions.

- This mount bracket is designed for vehicles with a voltage of 12 volts. Do not use it in a vehicle with incorrect voltage. A motor may be damaged or not be operated. If you want to use it on a vehicle with the other voltages, the optional DC-DC

converter is recommended.

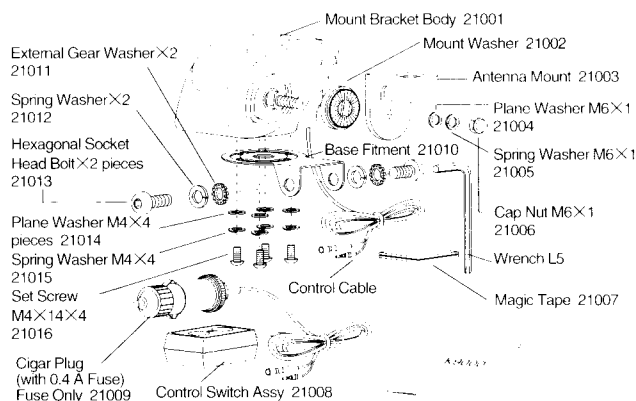
- Do not operate the freeze-up mount bracket in snow. A motor may be damaged or a fuse may be blown.
- Stop immediately, if the antenna touches obstacle during operation. A motor may be damaged or a fuse may be blown.
- Do not add an unreasonable force in the direction of raising the antenna other than the state when the limit switch is turned on after an antenna is fully raised. A gear may be damaged.
- If an antenna hits an obstacle during driving, the mount bracket may be damaged. To prevent such a situation, this mount bracket has a back torque limiter in which spring can absorb an impact to prevent the antenna and mount bracket from any obstacles. This back torque limiter can work in one direction.
- \* This mount bracket is designed for use in minus earthed cars. When the mount bracket is used in plus earthed cars, the lamp will not be lighted. Reverse the connection of a power cord from the cigar plug wired on the substrate in the switch box.

## Features

- This mount bracket has a spring-type back torque limiter which can prevent the antenna from rattling and protect the car and the mount bracket.
- The mount bracket has an angle adjustment mechanism of control knob type which allows an angle to be adjusted to 7 levels ranged from 45 to 90 degrees.
- The mount bracket has a cigar plug which does not require any troublesome wiring. A mount bracket and a base fitment are separated so that you can adjust the angle of the mount bracket as you prefer.

## Confirm the package

Confirm all parts in the package. If some parts of the mount bracket is broken, tell your dealer parts number.



## Explanation of Operation

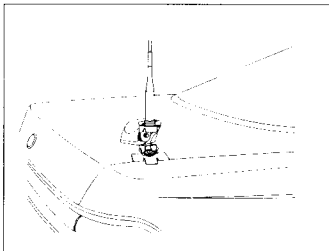
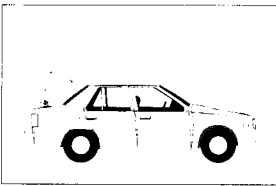
• An antenna may be raised or laid down when the control switch is depressed. The mount bracket body contains a limit switch, and therefore the antenna shall be automatically stopped even if the control switch is being depressed. When the switch is ON, green lamp shall be lighted at raising the antenna and red lamp shall be lighted at laying down the antenna.

## Options

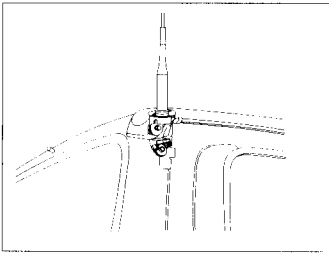
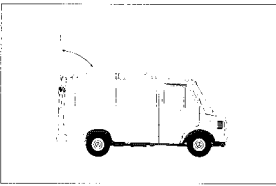
To install the mount bracket, optional mount fitments and coaxial cables are needed. Chose the optional parts to match the installation location.

### a. KTH (for Trunk/Hatchback) Installation Example

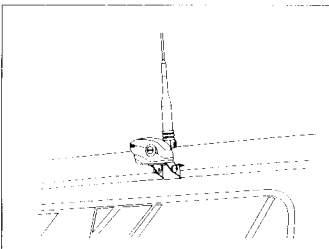
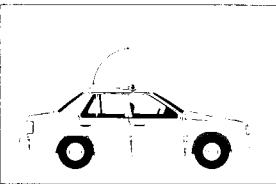
#### ● Trunk Installation Example



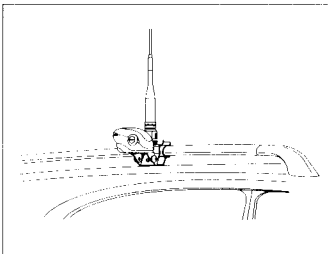
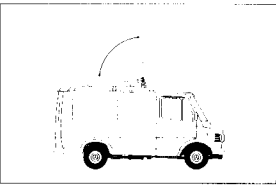
#### ● Hatchback Installation Example



### b. KRS (for Roof Side) Installation Example



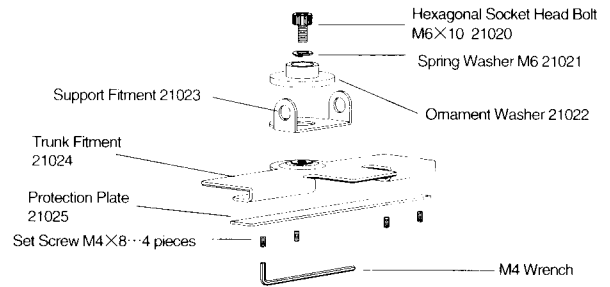
### c. KRR (for Roof Rail/Carrier Pipe) Installation Example



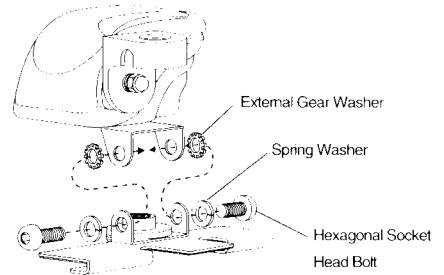
## Mount Bracket Parts and Method of Installing to Bracket

### 1. Mount Bracket Parts for Trunk/Hatchback

#### ● KTH Parts

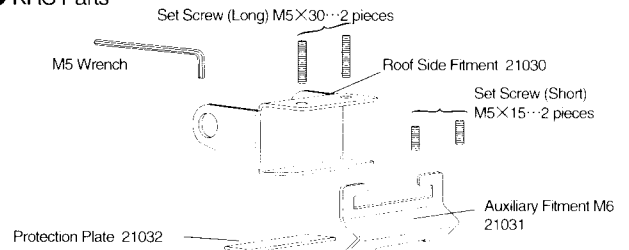


#### ● Installing KTH to Bracket

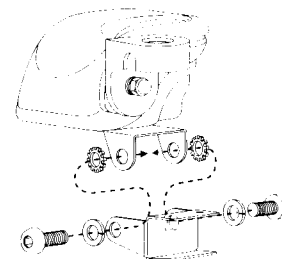


### 2. Mount Bracket Parts for Roof Side

#### ● KRS Parts

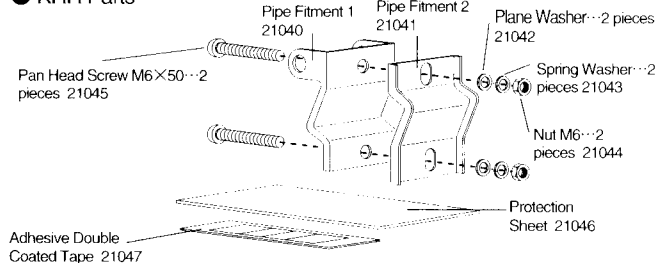


#### ● Installing KRS to Bracket

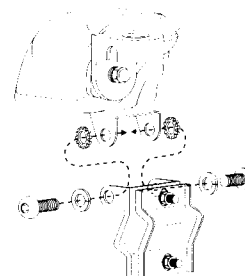


### 3. Mount Bracket Parts for Roof Rail/Carrier Pipe

#### ● KRR Parts



#### ● Installing KRR to Bracket



# Method of Installing on Car Body



## Warning

\* The back torque limiter contained in this mount bracket can work only when the limit switch is ON in response to raising an antenna. For this reason, backlash shall be avoided. The position of installation should not be reversed. Change the direction of the mount bracket body, if you want to lay down the antenna to the reverse direction.

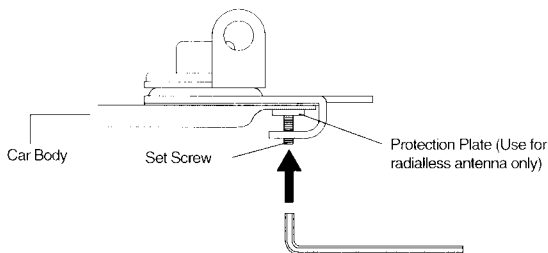
\* The surface color of the car body where the mount bracket is mounted will not fade due to exposure to the direct sunshine. Damage protection rubber sheet attached to some of Diamond brackets shall not effect contamination, and thus, this rubber sheet may not discolor the surface color of the car body.

- If you use an antenna other than a radialless antenna, the mount bracket should be electrically contacted with a car body. If the mount bracket and a car body are not insulated, SWR may not decrease.
- The installed location of the mount bracket may rust. Coat the spot, where the paint is removed, with rust resisting paint.
- Water may enter inside the car if the coaxial cable wiring is pulled into the car.

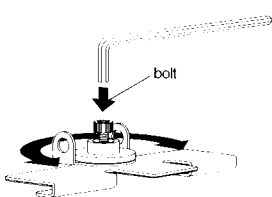
### 1. Trunk/Hatchback (KTH Mount Bracket)

#### ● Installing KTH Mount Bracket on Car

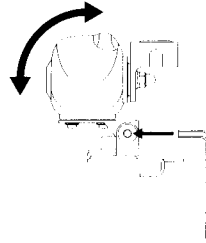
- Chose the Installation location where you can open and close trunk/hatchback without hindrance.
- If you use a radialless antenna, use a protection plate to avoid a damage made by set screws. If you use an antenna other than radialless, conduct fully the mount bracket and the car body without a protection plate.



- Adjust an angle in a hatchback in a manner as follows ;



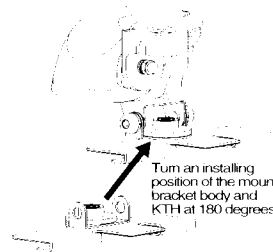
- (1) Loosen the bolt on the KTH and turn KTH laterally.



- (2) Raise and adjust the mount bracket body horizontally.



- (3) Loosen the set screws in the bottom of the mount bracket body. Turn the mount bracket laterally to adjust a direction of antenna's laying down. If you want to turn at more than 50 degrees, detach the mount bracket and parts, and then adjust an angle.

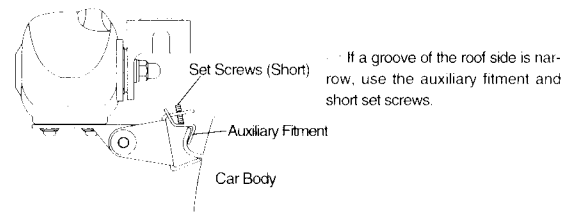


- \* If adjusting an angle is impossible due to contact between the mount bracket and the car body, turn an installing position of the mount bracket body and KTH at 180 degrees.

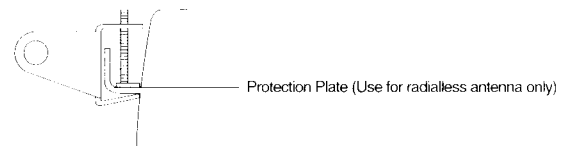
### 2. Roof Side (KRS Mount Bracket)

#### ● Installing KRS Mount Bracket on Car

- If you use a radialless antenna, use a protection plate to avoid a damage made by set screws. If you use an antenna other than radialless, conduct fully the mount bracket and the car body without a protection plate.



- If a groove of the roof side is wide.

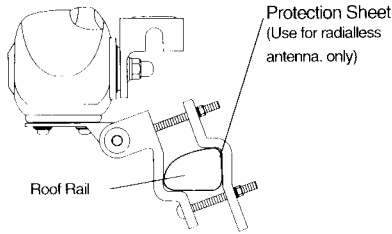


### 3. Roof Rai/Carrier Pipe (KRR Mount Bracket)

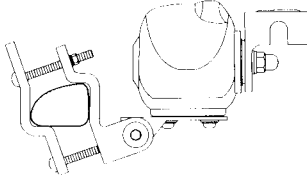
#### ● Installing KRR Mount Bracket on Car

- Important : If you use a radialless antenna, use a protection sheet to avoid a damage made by set screws. If you use an antenna other than radialless, conduct fully the mount bracket and the car body without a protection sheet.

Example of installing on outside roof rail



Example of installing on inside roof rail

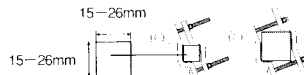


- KRR mount bracket can be installed on round and square pipes.
  - Dimensions of pipes and roof rails
- KRR mount bracket can be installed on various pipes and roof rails by adjusting fitments.

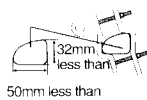
1 Round Pipe in diameter of 15-34



2 Square Pipe in one side of 15-26 mm



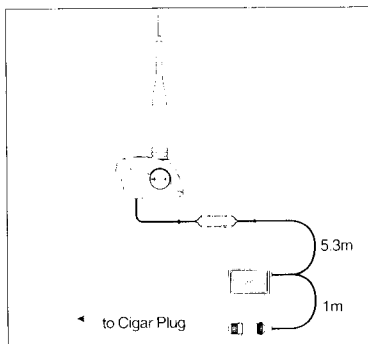
3 Roof Rail in height of less than 32 mm and width of less than 50 mm



## Power Cord Wiring

### Warning

- A plus voltage is applied on both power cords. If power cords are forced unreasonably or pinched, a fuse may be blown or shorting may occur.
- Wire the connector of the control box to the connector of the mount bracket.



## Coaxial Cable Wiring

### Warning

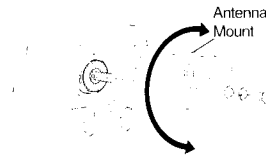
- Connect wiring, paying attention not to add an unreasonable force.

## Operating Angle Adjustment

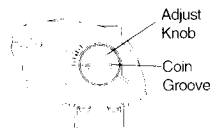
### Warning

- When you adjust an angle, be sure an antenna to be raised. If an adjust knob is turned during antenna's laying down, a limit switch may be damaged.
- \* An operating angle at shipment is set at 45 degrees.

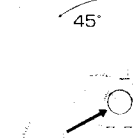
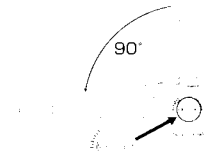
(1) Set an antenna to be raised at 90 degrees by operating the control switch.



(2) Loosen the nut of the antenna mount and set the position for antenna to be stood perpendicularly.



(3) Set a gage at a coin groove by using a coin as you prefer.



- Fasten screws after adjusted.

▲ Though the product being purchased is manufactured under strict quality control, if a damage is caused by transporting, ask your dealer promptly.

▲ Design and specification of these product will be changed for further improvement without advance notice.

## Specifications

Antenna Length to Be Installed	less than 1.3 m
Antenna Weight to Be Installed	less than 350 g
Operating Voltage	13.8 V (10-16 V)
Operating Current	less than 0.4 A
Operating Time	about 4 seconds (0-90 degrees)
Operating Angles	45-90 degrees
Weight:	0.44 Kg (without mount fitment)
Volume (Mount Bracket Only)	64W×66H×102D(mm)
Fuse Capacity	0.5 A

Do not use a fuse other than a specified 0.5 A fuse. The mount bracket may be damaged.