

Installation Instructions **CRUISADER** Motorcycle Laser-Radar Detector

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Tools Required

Tools Required For Installation

- Phillips or Blade Screwdriver
- 7mm, 14mm, 5/16 Socket or Wrench
- Electric Drill
- Drill Bit: 5/16" and 7/64"
- Other Tools May Be Required Based On Your Vehicle Type Or Requirements For Customized Installation

Dimensions:

- Console: 3" L x 2.062" D
- Laser-Radar Antenna: 3.06" H x 1.23" W x 2.82" L
- Laser Antenna: .8' H x 2.5" W x 1.45" L

Cable Lengths:

- Laser-Radar Antenna Cable: 3ft
- Laser Module Antenna Cable: 3ft
- Power Cable: 3ft
- Console Cables: 3ft
- LED Cables: 2ft

Specifications are subject to change without notice.

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Whistler Crusader Components

Laser-Radar Antenna



The waterproof laser-radar antenna with Temperature Probe is mounted at the front of your vehicle.

Console And Power Cable



The compact control panel is mounted on the handle bars in a location convenient for viewing. The power cable plugs into the control panel.

Laser Antenna And LED Assembly



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Mounting Brackets



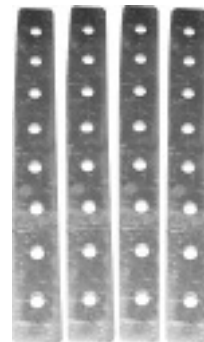
V Bracket



Dog-Bone Bracket



In-Dash Bracket



Universal Brackets



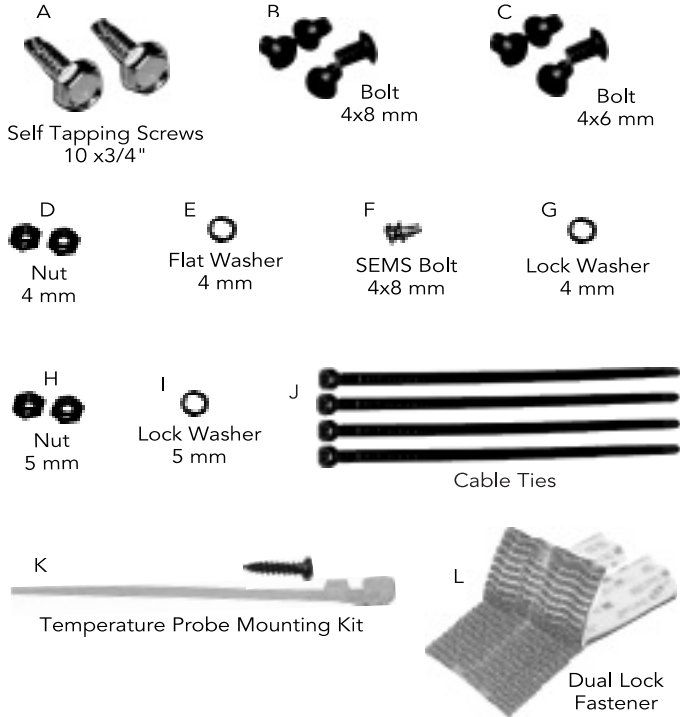
Reflector



Handlebar Clamp

4

Mounting Fasteners



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Mounting Fasteners

Reference	Description/Use	Qty
A	Self Tapping Screw - Fastens Radar to Vehicle	2
B	Bolt 4x8 mm - Fastens Brackets to Radar Receiver	4
C	Bolt 4x6 mm - Fastens brackets to Radar Receiver	4
D	Nut 4 mm - Used with B or C	2
E	Flat Washer 4 mm - Used with B or C	4
F	SEMS Bolt 4x8 mm - Fastens Brackets to Radar Receiver	4
G	Lock Washer 1 mm - Used with B or C.	4
H	Nut 5 mm - Used with studs on Control Panel.	2
I	Lock Washer 5 mm - Used with Studs on Control Panel	2
J	4" Cable Tie - Secures cable from Radar Antenna at Various Location on The Vehicle	6
K	Mounting Table Tie - Secures Temperature Probe to Vehicle	1
L	Hook & Loop 1"x3" - Fastens Laser Radar Receiver to Vehicle	1

Note: If mounting fasteners are missing from your package, please call 1-800-531-0004 for replacements.

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Installation of Laser-Radar Antenna

General Information

The laser-radar antenna is water resistant and designed to be mounted on a motorcycle, snowmobile, etc. Radar signals will pass through non-metallic materials such as fiberglass and plastic, however, be sure not to mount the receiver behind any metal, as it will block the receiver's antenna. This receiver also incorporates a laser detector. In order for the laser receiver to "see", it can not be mounted behind any object. In some installations, this is not possible. We supplied an additional laser only receiver for this instance. If the installation allows for a clear view for laser-radar receiver, the extra laser receiver can be used for rear detection. Because the optimal location for mounting the antenna varies by vehicle type, the hardware supplied is designed to offer a wide variety of mounting options.

Note: The "antenna" is the bubble area on the case. All references to antenna in this manual will be the bubble area.

Note: Use of hardware that is not supplied or DRILLING into the case will cause damage to the receiver and void the warranty.

Antenna Mounting Brackets

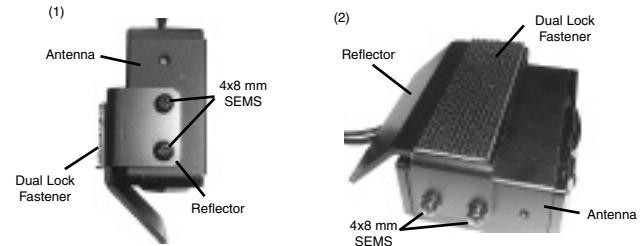
There are 3 ways in which to mount the laser-radar antenna; dual lock fastener, reflector bracket and universal brackets (similar to old car radio ground straps). These mounting accessories can be used on their own or in combination to provide the best mounting solution for the vehicle.

Do not drill into the receiver housing!

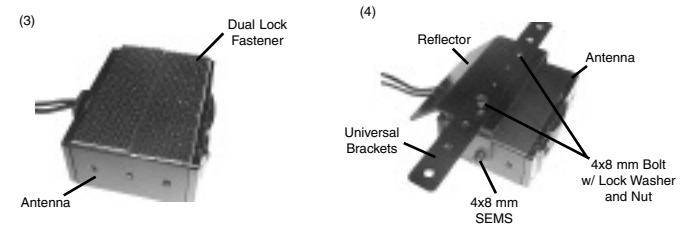
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Installation of Laser-Radar Antenna

The reflector bracket serves two purposes; (1) to allow vertical mounting of the antenna (see page 10 for vertical install instructions) and (2); when mounted in reverse (angled portion towards the wires.) allow the receiver to be installed on any horizontal area.



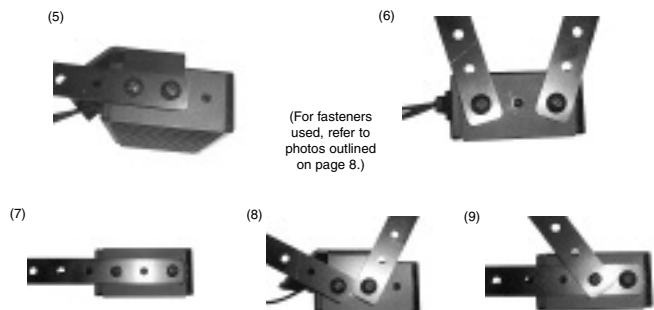
(3) The heavy duty double lock fastener provides easy installation with the option of easy removal without tools.
 (4) The universal brackets are flexible but yet strong to hold up to a motorcycle's vibrations.



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Installation of Laser-Radar Antenna

The following pictures show many options for mounting and the hardware required for proper installation (5-9).



Horizontal Or Vertical Mounting Of Antenna

The antenna can be attached to the vehicle in a horizontal or vertical position, or at any angle between these two points. Select the position that allows you to fasten the antenna to your vehicle in the most secure manner.

Note: When choosing a mounting location, remember that in order for the built-in laser receiver to detect signals it needs an unobstructed view down the road. This means that the unit can not be mounted behind plastic and can not be installed in a vertical manner. This is not an issue because, if the installation requires a vertical attachment, we have supplied another laser antenna.

Installation of Laser-Radar Antenna

Installing Using Dual Lock Fasteners

The laser/radar antenna as well as the control panel can be installed using the dual lock fasteners. Clean the selected area with rubbing alcohol to remove any waxes or polishes before installing the module. This will prep the area so the adhesive will have a clean surface to stick to.

Horizontal Mounting

When mounting the antenna in a horizontal position (or on an angle between), remember to keep the ANTENNA window as close to perpendicular as possible to the road surface (ANTENNA window should not be angled up toward the sky or down toward the road surface).



Radar antenna mounted in horizontal position.



Best mounting angle for optimum detection of all types of radar guns.

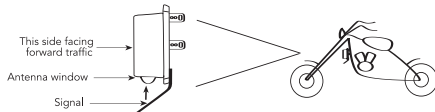
Mounting Vertical (with 45° Reflector)

For vehicles that do not have sufficient clearance or access (about 5") to mount the antenna in a horizontal position, the 45° reflector should be used.

The 45° Reflector is attached to the antenna with at least two screws. Place the screws through the holes on the reflector bracket and then tighten into the antenna (do not over tighten).

Installation of Laser-Radar Antenna

Mount the antenna to the vehicle such that the ANTENNA window is facing the road surface, sky, right or left of the vehicle, and the reflector has an unobstructed view of the road ahead.



Radar antenna mounted(vertical) with 45° Reflector.

Mounted in this position, radar signals are reflected into the ANTENNA window; however, the unit will not be able to receive laser signals.

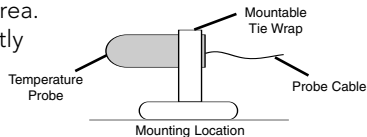
Mounting the Temperature Probe

Find a location that is far enough away from the engine and radiator heat but still in the airflow for the vehicle. Mounting the Probe too close to these heat areas will give a false high temperature.

- Attach the mountable tie wrap (supplied) to the Temperature Probe as shown.
- Mark location for Probe, then drill a hole using a 7/64" drill bit. Attach Probe with tie wrap in the correct orientation using the #6 x 3/4 screw.

Note: Mount the Probe so that there is space between the Probe and the mounting area.

Do not mount Probe directly to metal area.



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Installation of Laser-Radar Antenna

Antenna Cable to the Control Panel

Once the antenna is installed, connect the cable from the laser-radar antenna to the quick disconnect cable on the control panel. Tie this cable in knot similar to using an electrical extension cord. Be careful not to interfere with or disconnect other wires, cables, or mechanical systems of your vehicle while routing the antenna cable. Also, keep the antenna cable away from any areas around the engine compartment that may become hot. Cable ties are provided to secure the antenna and Temperature Probe cables at various points on the frame.



PWR - 12 Volt Connection

AUX - LED, Tone Voice Module Output

LAS - Laser Module Input

ANT - Laser-Radar Receiver Input

Label on back of Control Panel Indicates what each wire goes to.

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Installation of Control Panel

Installation of the Control Panel

The installation package provides at least three ways to mount the control panel to the vehicle. Using the "V" bracket alone will allow attachment to an existing bolt on the vehicle. Another is using the handlebar clamp in conjunction with the "V". The handle bar bracket is designed to be used on any 1 inch to 1 1/4" handlebar tubing. The clamp is shipped with an inner and outer clamp together. Remove the bolt to separate the two sizes of clamps. The inner bracket is used for the smaller diameter bars, the larger size for the 1 1/4" bars.



The next way is using the dog bone bracket instead of the "V" bracket. This bracket allows more flexibility in providing the correct viewing angle for the display.

Tip: Since the control panel dimensions are the same as a standard 2 1/16" automotive gauges, the aftermarket offers many enclosures that can customize the installation.

General Laser Information

Mount the laser antenna with the lens array facing forward down the road. This approach offers the greatest protection, since you will most often be traveling into a laser signal, rather than away from it when laser speed enforcement is encountered. For effective protection, make sure the laser antenna has an unobstructed view forward and behind (if installed in the rear).

Installation of Laser Module Antenna

This laser module has two uses depending on installation of the laser-radar antenna. The first is providing front laser detection when the laser-radar antenna installation does not allow for laser detection. The second is providing rear laser detection when the laser-radar antenna does allow for laser detection.

The laser module utilizes double sided tape which provides a secure but removable installation of this light weight module. This makes installation easy on bikes with fairings.

Front mounting

Mount the unit level with the 3 lenses facing forward with an unobstructed view down the road. The unit can be mounted upside down but not sideways. Although the unit will detect laser signals in this manner, detection from an angle will be reduced.



Level Mounting- 'Looking down the road'

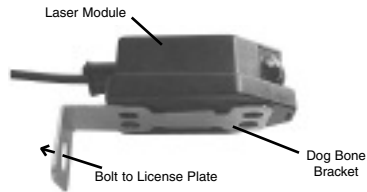
Route the module's cable to the **LAS** quick disconnect at the control panel and tie wrap any excess making sure that the cable does not interfere with the operation of the vehicle.

Installation of Laser Module Antenna

If there is no fairing suitable to allow the proper orientation of the laser module, the module can be tie wrapped to the frame or use the dog bone bracket for a more secure mount.

Rear mounting

The most common place for mounting the laser module is at the license plate using the dog bone bracket attached to the plate. Peel the red backing off of the tape and place onto the dog bone bracket. Make sure that the laser module is orientated correctly as stated in front mounting section. The 3 lenses will now face down the road away from the vehicle!



Installation of Alarm LED

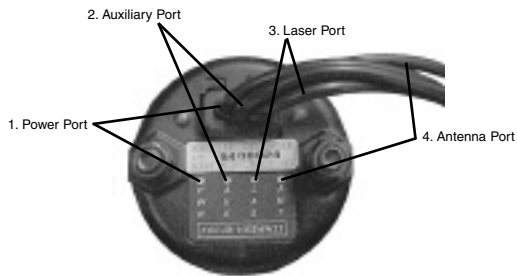
The intense blue LED provides additional visual alerts to laser-radar signals. The molded-in LED holder provides easy panel mounting. Simply drill a 5/16 hole into a removable panel and insert the LED's wiring into the hole and press gently the LED housing until a flush fit. (see drawing) The LED could also be tie wrapped to the handle bars or brake/clutch cables for an easy attachment.



Note: Do Not plug LED into the **AUX** Output with the control panel turned on. Damage to LED may occur.

Carefully route the cable to the control panel and plug into the **AUX** out connector.

Installation of Console



Laser-Radar Antenna Cable Connection

The stereo connector on the end of the Laser-Radar antenna cable plugs into the **ANT** port (4) on the back of the control panel.

Laser Antenna Cable Connection

After mounting the laser antenna, conceal the cable and plug the stereo jack connector into the port on the back of the control panel labeled **LAS** port (3).

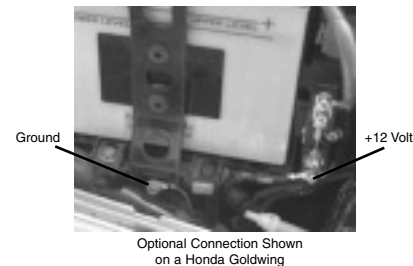
Power Cable Connection to the Battery

Caution: Always wear safety glasses and exercise caution when working near the battery. Batteries emit hydrogen gas while charging and may explode if sparks are present.

Installation of Console

Power Cable Connection to the Battery (Cont.)

Locate the power and ground connection terminals on the power cable. Connect the positive lead (wire with fuse holder) to the positive terminal on the battery (on a conventional battery, remove the terminal first, on a side-mounted battery, remove the wire assembly from the terminal). Connect the other lead to the battery ground (the battery ground is generally a bolt located on the frame, adjacent to the battery).



Note: For optimum performance and freedom from battery related problems, make sure the battery terminals are clean and free from any corrosion. Using the supplied tie wraps, secure the excess power cable away from all moving engine components. Once the battery connections are finished, connect the cable to the **PWR** port (1) on the back of the control panel.

Optional Accessories

The following accessory can be ordered directly from Whistler by calling 1-800-531-0004 or visiting our online store at www.whistlergroup.com

Order Code	Description	Price
203601	Wireless In Helmet Display	\$59.95

Shipping and handling (per order) \$7.50 Prices are subject to change without notice.

Troubleshooting

PROBLEM: No display or audio.

- Check fuse in power cable, replace if necessary.
- Check fuse in fuse box, replace if necessary.
- Make sure power cable is properly grounded.

PROBLEM: Unit alarms when using vehicle equipment or electrical accessories (brakes, power mirrors/windows, directionals, horn, etc.)

- Check condition of vehicle's electrical system, including battery and alternator.
- Install a filter capacitor (470mfd. 25 volt or larger capacitor value) where power connection is made.

PROBLEM: Audio alerts are not loud enough with the optional module.

- Cancel Auto Quiet Mode or City Mode
- Check audio level settings.

PROBLEM: Display shows Com error.

- Warning communicates "loss of link" between control panel and front antenna (RADAR).
- Check antenna connection at back of control panel.
- Contact factory, if you suspect antenna is defective.
- Look for cuts in the cable

If difficulties occur which cannot be solved by information in this Troubleshooting Guide, please call Whistler Customer Service at 1-800-531-0004 or visit our FAQ page at www.whistlergroup.com, before returning your unit for service.

For warranty information, refer to owner's manual.