

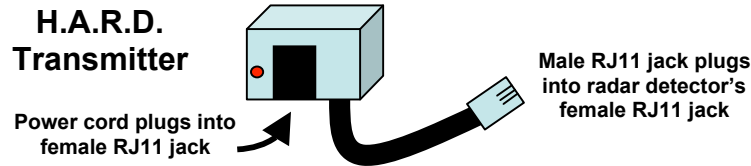
Installation and Usage

Helmet Assisted Radar Detection (H.A.R.D.) System

One of the primary benefits of the H.A.R.D. System is the ease of installation. No modifications to your radar detector are required. In most cases, no modifications are required of your helmet. The H.A.R.D. System consists of two components: a transmitter (plugs into the detector), and a receiver (the helmet part).

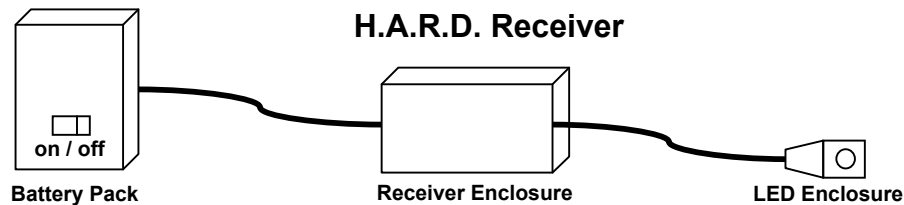
Installing the H.A.R.D. Transmitter:

- The H.A.R.D. transmitter has a female and male RJ11 jack. Unplug the power cord from the radar detector. Plug the male RJ11 jack, found at the end of the transmitter's cord, directly into the radar detector's female RJ11 jack. The power cord that originally plugged into the radar detector now plugs into the female RJ11 jack on the transmitter and powers both the detector and the H.A.R.D. transmitter. See figure below for details.

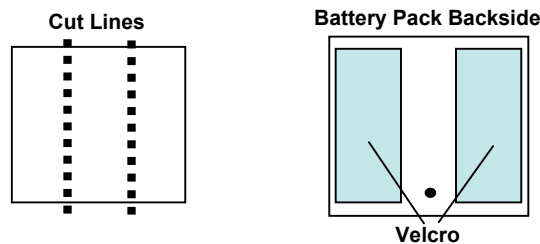


- A red or green light located next to the female RJ11 jack on the transmitter will flash when sending a signal to the helmet receiver unit. The flash rate indicates the strength of the radar signal.
- You can attach the transmitter to either the top or bottom of your detector using the piece of Velcro enclosed with your system.
- The transmitter and receiver should be within 10 feet of one another for optimal reception. Each installation is unique so some minor adjustments in transmitter and receiver box location may be required to find the optimal location for your installation.

Installing the H.A.R.D. Receiver:



- The H.A.R.D. receiver enclosure can be installed in your helmet by inserting it inside the cheek pad between the soft and harder Styrofoam padding (not between the cheek pad and the hard helmet shell but rather inside or around the cheek pad assembly).
- When mounting the LED enclosure, found at the end of the cord, it should extend from the 'port-hole' like a miniature stop sign. The term 'port-hole' refers to the opening in a full-face helmet that you look out. The bulb can extend from anywhere around the porthole opening. Most helmets allow the cord to slip between the cheek pad and the helmet permitting the LED enclosure to be placed comfortably in the peripheral vision area of the porthole opening.
- The LED turns red when illuminated. It is very bright in order to be seen during daytime riding. At night, moving the LED enclosure off to the side may be necessary.
- The small battery pack can be installed on the outside rear of the helmet to avoid wind noise, moisture from weather, and other negative forces. Heavy duty Velcro is included for attaching the battery pack to the rear of the helmet. It is recommended that the battery pack be mounted slightly higher than the bottom edge of the helmet in order to avoid the exiting wires from the battery pack to come in contact with any surface when the helmet is not in use.
- To address the curvature of the helmet, cut the heavy duty Velcro in half. Then place these two halves on the backside of battery pack. This allows more contact area between the helmet and the battery pack. See below diagram.



Maintenance of your H.A.R.D. System:

- The **H.A.R.D.** System is a wireless, electronic system. Proper care should be exercised when using and maintaining the system. Like your radar detector, the H.A.R.D. System is not waterproof. Exposure to extreme moisture could cause the to fail.
- To combat the effects of moisture, the receiver circuitry has been sealed in a waterproof material. The receiver 'box' is designed to be mounted inside the helmet. The battery pack is water resistant. When properly mounted on the backside of the helmet it will be protected from the danger of water damage. While the battery pack is not 100% sealed from water penetration, it has been tested to withstand the typical effects of water and moisture from adverse weather conditions.
- The only items that need to be replaced are the four batteries inside the battery pack. In motorcycle miles, the battery life is approximately 12,000+ miles (400+ hours). The number of radar signals detected affects battery life. **IT IS REQUIRED THAT THE RECEIVER BE TURNED OFF AFTER EACH USE TO MAXIMIZE BATTERY LIFE.** By turning the system on and off between uses, this allows a certain amount of "battery recovery" and will provide up to 25% more life when compared to a receiver that has been left 'on' continuously.
- To replace the batteries, remove the single screw from the back of the battery pack. Remove the back cover of the battery pack. Remove the four (4) AAA batteries and replace with four (4) new AAA batteries. Either alkaline or lithium batteries can be used.

H.A.R.D. System usage tips:

- The **H.A.R.D.** System is activated by an electronic signal from the radar detector. When the detector's audible alert is sounded the **H.A.R.D.** System is activated. There is one exception for owners of the Valentine detector. On the Valentine detector, the audible alert **DOES NOT** always correspond to the lighted arrows found on the detector. The audible alert sounds when the initial radar signal is detected and when there is a change in the status of the radar threat. It is possible to ride around with lighted arrows on the Valentine without the audible alert being sounded, hence the **H.A.R.D.** System not being activated. **Do not interpret this as the H.A.R.D. System malfunctioning.**
- When you power up the radar detector the device goes through an initialization process or a 'boot up' similar to that of a computer. This boot up also sends a signal that triggers the **H.A.R.D.** System and provides confirmation the system is properly functioning. On the Beltronic detector, a signal is not sent during the boot up process. Additionally, on the Valentine detector, a user can also quickly press the control knob (as if muting the detector) and this will also trigger the **H.A.R.D.** System.
- The **H.A.R.D.** System has two built in safety alerts to notify the user if the radar detection system is not 100% functional. If either of the below two scenarios exist, the LED will continuously flash:
 1. If there is power going to the **H.A.R.D.** transmitter but the radar detector is in the 'off' position. This eliminates the chance of riding with the **H.A.R.D.** System on but forgetting to turn the detector on.
 2. If there is power going to the **H.A.R.D.** transmitter but it comes unplugged from the detector. This eliminates the chance of the transmitter accidentally becoming unplugged during riding.
- The **H.A.R.D.** System, possibly your first introduction to military type Heads Up Display (HUD) usage, could take some getting used to. It was designed to give you an immediate notification that your detector is going off without the rider having to take their eyes off the road. This design is known as 'line-of-sight' warning. When first using the system, you may find yourself moving the LED enclosure 'tighter' within your peripheral vision. As you become familiar with the system, the LED enclosure can be moved to the outer edge of your peripheral vision.
- Everyone has different peripheral vision capabilities much like everyone has different vision and hearing capabilities. Experiment with the placement of the LED enclosure to find the optimal location for your particular use. This position will be unique to you and your helmet.

A **Troubleshooting Guide** for the **LEGAL SPEEDING H.A.R.D.** System is available on our website as a PDF file. Please visit the following website address: www.legalspeeding.com/products.htm

Scroll down to the '**H.A.R.D.** System Components and Repairs' section. Within that section, a 'download' option is available for the PDF file. You can also call 214-673-9443 for personal assistance.