

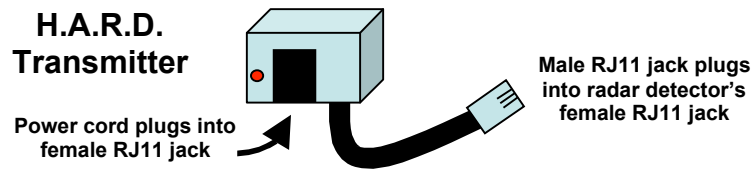
Installation and Usage

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).

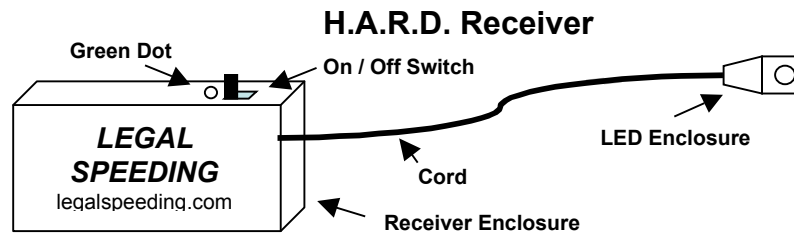
Installing the H.A.R.D. Transmitter:

- 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 using one of the following methods:
 - Attached to the outside of the helmet using Velcro
 - Placed inside the cheek pad between the soft and harder Styrofoam padding (not between the cheek pad and the inside of the helmet but inside the cheek pad assembly)
 These two methods are the easiest ways to mount the receiver enclosure on or in the helmet.
- 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 port-hole 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 port-hole opening.
- A switch is located on the receiver. When the switch is placed next to the green dot, it is 'on.' **The green dot is a painted dot and does not illuminate when the receiver is in the 'on' position.**
- 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.
- When positioning the LED enclosure remember that any LED is best seen when looking directly at the center of the bulb.

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. **The H.A.R.D. System is NOT WATERPROOF. EXPOSURE TO MOISTURE WILL CAUSE THE UNIT TO FAIL.**
- The only items that need to be replaced are the two batteries inside the receiver. In motorcycle miles, the battery life is approximately 3,500 miles (100 – 140 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 receiver. Remove the back cover of the receiver case. Gently lift the PCB (printed circuit board) from the case. Once the PCB (or the ‘guts’ of the receiver) has been removed, the batteries are found on the bottom of the PCB. Take a non-conductive item (a toothpick or plastic item) and push the battery out from behind. Do not use a metal object such as a knife or screwdriver as this may cause the unit to short out and fail to operate. **The type of battery used is a CR 2032.** This type can be found at most department stores that carry lithium watch batteries. The receiver requires two (2) batteries. The battery holders have been marked with a positive (+) sign indicating proper placement of the batteries.
- **IMPORTANT: When re-assembling the receiver, be sure to align the back cover properly over the threaded screw hole in the receiver enclosure.**
- When cleaning the exterior of the system remember it is an electronic device. Even a small amount of moisture or cleaner reaching the circuit board can cause the system to malfunction.

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.