

**CINCINNATI  
MICROWAVE®**

# ShifterPro™ Upgrade



- Compatible with:
- PASSPORT 9500ci
  - Beltronics STiR Plus
    - SHIFTER ZR4

S P E E D O F L I G H T P R O T E C T I O N ™

LASER SHIFTING TECHNOLOGY • INSTALLATION REQUIRED

**T H E U L T I M A T E  
L A S E R D E F E N S E S Y S T E M**

Installation Manual

## ShifterPro Comes Complete

### Laser ShifterPro Sensors

- Twin weatherproof sensors
- 19.5 foot cable with in-line waterproof connector
- Mounting hardware



### ShifterPro Bridge Box

- Bridge Box is used to connect ShifterPro Sensors to main 9500ci Interface, Beltronics STiR Plus or ZR4 Interface



### Two (2) 1 Foot Cables



### Y Adapter (For ZR4 installation only)



## Important Notes

### Read This First

Congratulations. Your new Laser ShifterPro is the most advanced defense system against targeting laser guns.

Before starting your installation please read the manual in detail to get the most out of your new Laser ShifterPro's performance and features.

Please drive safely.

### Warning

Never, under any circumstances, look at the sensors while powered on and operating. Do not view with optical instruments (like magnifiers).

### CLASS 1 LASER PRODUCT

This product complies with IEC 60825-1:2007-03 Ed. 2.0

This product complies with 21CFR Subchapter J Parts 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50 dated June 24, 2007.

### Please Note

This product may be limited or prohibited in some jurisdictions. Check applicable laws before using.

## Safety Precautions

### Important Installation Warnings

- 1** It is recommended that you have a professional install your new ShifterPro. Installation of this system requires experience and expertise in automotive electronics. If you are unfamiliar with automotive electronics, car audio specialists and many car dealers can install your ShifterPro for you.
- 2** Attempting to install this product without expertise in automotive electronics installation can cause personal injury or damage to your vehicle.
- 3** If your vehicle is damaged during installation its safety systems may be compromised, which could cause personal injury or property damage.
- 4** Improper installation may void ShifterPro's warranty.

### Performance Warning

Since Laser signals will not pass through objects, including most plastics, it is critical that the Laser Shifters are mounted perfectly level and have an unobstructed "view" of the road.

## Installation Instructions

### Installation Tips

While following the steps throughout this manual, please refer to the following recommendations for a professional, trouble-free installation:

- 1** Entry points into the interior may be located behind the plastic liner in the wheel well, fuse box, or unused grommets.
- 2** There are often many existing entry points at the rear of the vehicle as well:
  - Gaskets behind license plates, around illumination lamps, and near trunk lid hinges.
  - Tail light wiring gaskets are often easily accessible and large enough to add cables.

## Installation Instructions

- 3** If there are no suitable openings, it will be necessary to drill a hole through the firewall:
- a** Thoroughly investigate all locations before drilling any holes! Ensure no wires, hoses, or other vehicle components will be damaged.
  - b** On vehicles with automatic transmissions, there is often a location for mounting a clutch pedal. This location is typically an ideal location to drill.
  - c** Before drilling, cover the surface being drilled with masking tape to prevent damage to the anti-corrosion coating in the event the drill bit slips.
  - d** Drill a 13/32" or 7/16" hole.
- 4** The cables for sensors mounted at the rear of the vehicle can generally be routed through the trunk compartment and concealed under trim panels quite easily. If necessary, the cables can also be routed under the vehicle and through an opening in the firewall. Be sure to secure cables away from moving parts and hot surfaces.
- 5** A quality crimper for modular connectors can be used to cut cables to length and replace the connector. Removing the connectors may also make it easier to enter the vehicle's interior through existing openings.

### Note:

- Only an exact replacement for the standard connector can be used. Do not attempt to cut the wires unless the proper connector and crimping tools are available.
  - Connectors cannot be reused.
  - Do not cut the cable too short! Provide enough cable to route to the Interface and add a couple extra feet to ease installation.
  - Install the new connector such that its locking tab is on the same side as the color coded stripe on the cable.
  - Do not attempt to cut the cable and splice the wires together.
- 6** When drilling or cutting interior trim panels (for instance, when installing the Concealed Installation Alert Indicator or the optional Display Bezel), first cover the surface of the panel with masking tape to prevent accidental scratches.

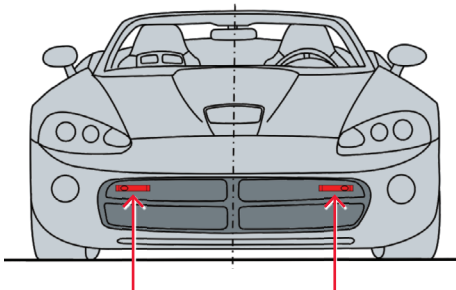
## Laser ShifterPros

Plan your installation carefully. It is highly advisable to inspect the entry points from the engine compartment into the driver's cabin before installation of sensors. For optional rear sensor installation, look for entry points behind the license plate or lights.

If you are unable to find entry points, you will need to drill a hole at least 0.2 in (5 mm) in diameter to route the cable into the cabin. Apply rubbing alcohol if needed, so you can easily pull cable into the cabin without damaging it.

## Positioning Sensors

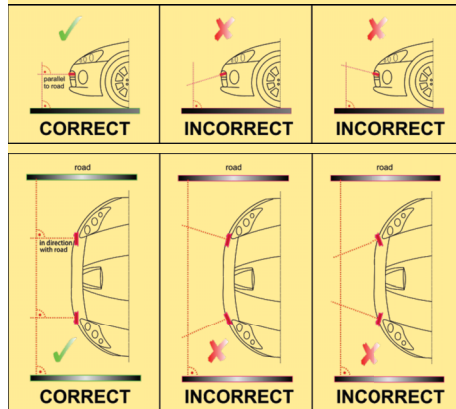
Install each sensor halfway between the side and the center of the vehicle.



For optimal performance, sensors need to be facing straight forward (or backward, if installing optional rear sensors), not at an angle. Make sure that each sensor is parallel with the road (using supplied bubble level).

### Note

Vehicle must be positioned on a flat surface in order to position sensors parallel with the road. Make sure that sensors have an unobstructed "view" of the road so the unit can function properly. Do not install sensors behind a solid surface, which would block laser transmission/reception.

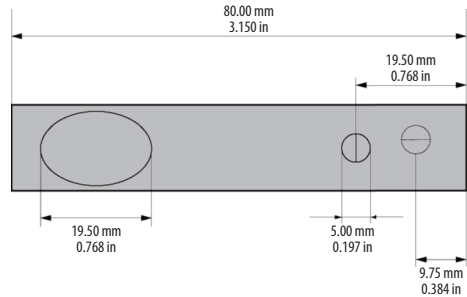
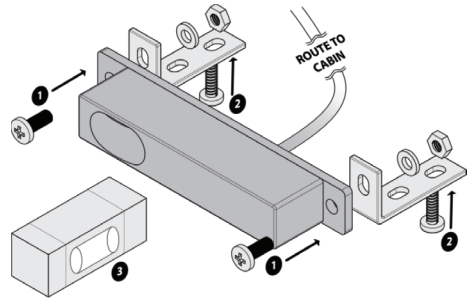


# Installation Instructions

## Individual Sensor Installation

- 1 Using bolts, nuts and washers, mount sensor to supplied L-shaped bracket and tighten firmly.
- 2 Using screws, mount L-shaped bracket (with sensor attached) to solid surface of vehicle grill.
- 3 Use supplied bubble level to check alignment of the sensor and ensure it is parallel to the road.
- 4 Repeat for additional sensor(s).

If you must install sensors behind the front grill of the vehicle, it is crucial that they be positioned in such a way that the receiver and transmitter components have unobstructed “views” of the road. The image at right shows the positions of both the receiver and transmitter components within the sensor. The 19.5 mm ellipse (0.77 in) represents the receiver lens, while the 5 mm (0.20 in) circle represents the laser diode transmitter.



## Securing Connectors with Shrink Tube

Once you’ve installed all components properly and tested to ensure all parts are working properly, use cable ties to fasten sensor cables to a solid surface, keeping them away from heat and any moving parts. It is advisable to use the supplied heat-shrink tubes to protect connectors against water, moisture, dust, etc.

## Parts and Service

### Additional ShifterPro Sensors

- Two (2) Additional ShifterPro Sensors with hardware sold separately



- Extension Cable (6.6 ft)



- ShifterPro Sensor software updates are available through ShifterPro Tools at EscortRadar.com

To obtain service, contact ESCORT at 1-800-543-1608 to obtain a Return Authorization Number.

Properly pack your product and include: your name, complete return address, written description of the problem with your product, daytime telephone number and a copy of the original purchase receipt. Label the outside of the package clearly with your Return Authorization Number.

Ship the product prepaid (insured, for your protection) to:

RMA# \_\_\_\_\_

ESCORT Inc.

5440 West Chester Road  
West Chester OH 45069

Go to our  
website  
for pricing

## Warranty

### ESCORT One-Year Limited Warranty

ESCORT warrants your Laser ShifterPro device against all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

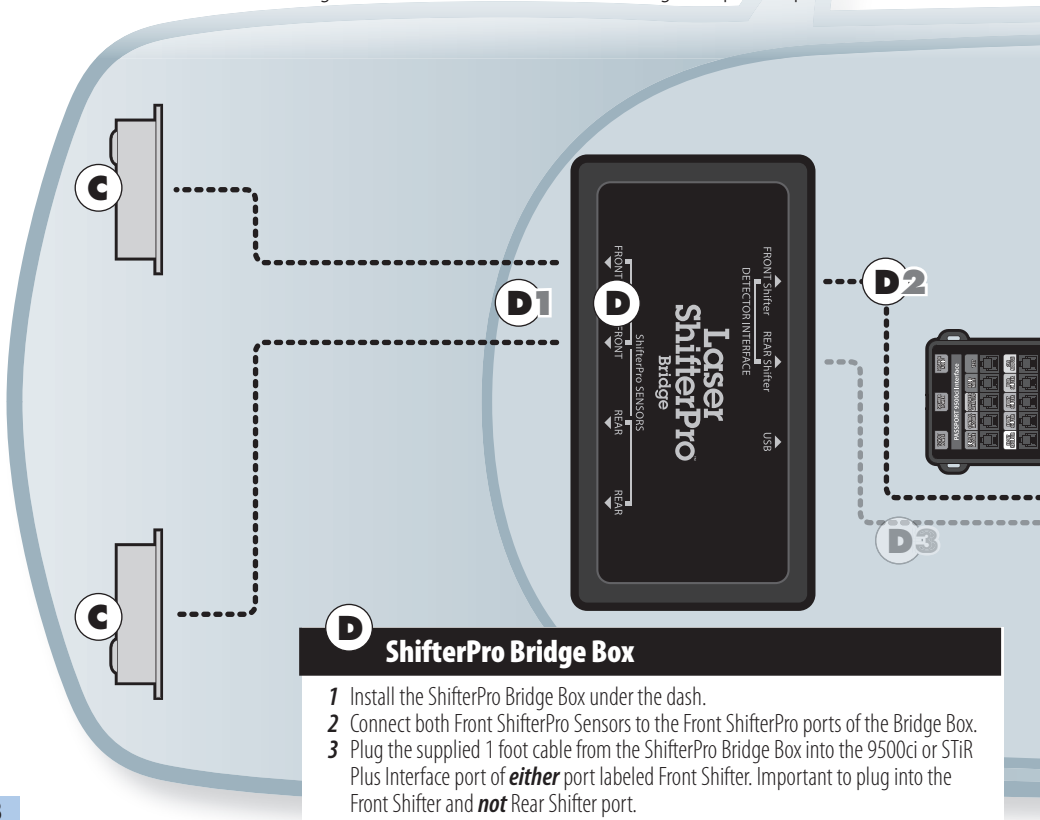
- The sole responsibility of ESCORT under this warranty is limited to either repair or, at the option of ESCORT, replacement of Laser ShifterPro. There are no expressed or implied warranties, including those of fitness for a particular purpose or merchantability, which extend beyond the face hereof. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
- ESCORT is not liable for any incidental or consequential damages arising from the use or misuse of Laser ShifterPro. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific rights. You may have other legal rights, which vary from state to state. This warranty does not apply if the serial number has been removed or if your Laser ShifterPro device has been subjected to physical abuse or modification.

## Installation Schematic For PASSPORT 9500ci & Beltronics STiR Plus

### Letter References For Components

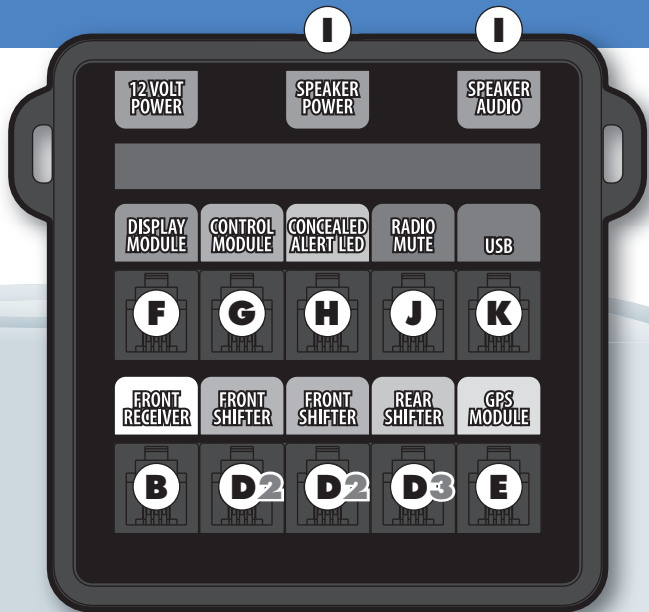
- C Front Laser ShifterPros** > Plug ShifterPro Sensors into ShifterPro Bridge Box ports **D1**
- D ShifterPro Bridge Box** > Plug **D2** of Bridge Box into *either* Front Shifter port of 9500ci or STiR Plus Interface
  - > Plug **D3** of Bridge Box into Rear Shifter port of 9500ci Interface
- J Rear Laser ShifterPros** > Plug ShifterPro Sensors into ShifterPro Bridge Box ports (Optional)





Installation for **FRONT** ShifterPro Sensors

Installation for **REAR** ShifterPro Sensors



Interior of Vehicle

J

Additional ShifterPro Sensors

sold separately for rear laser protection

J

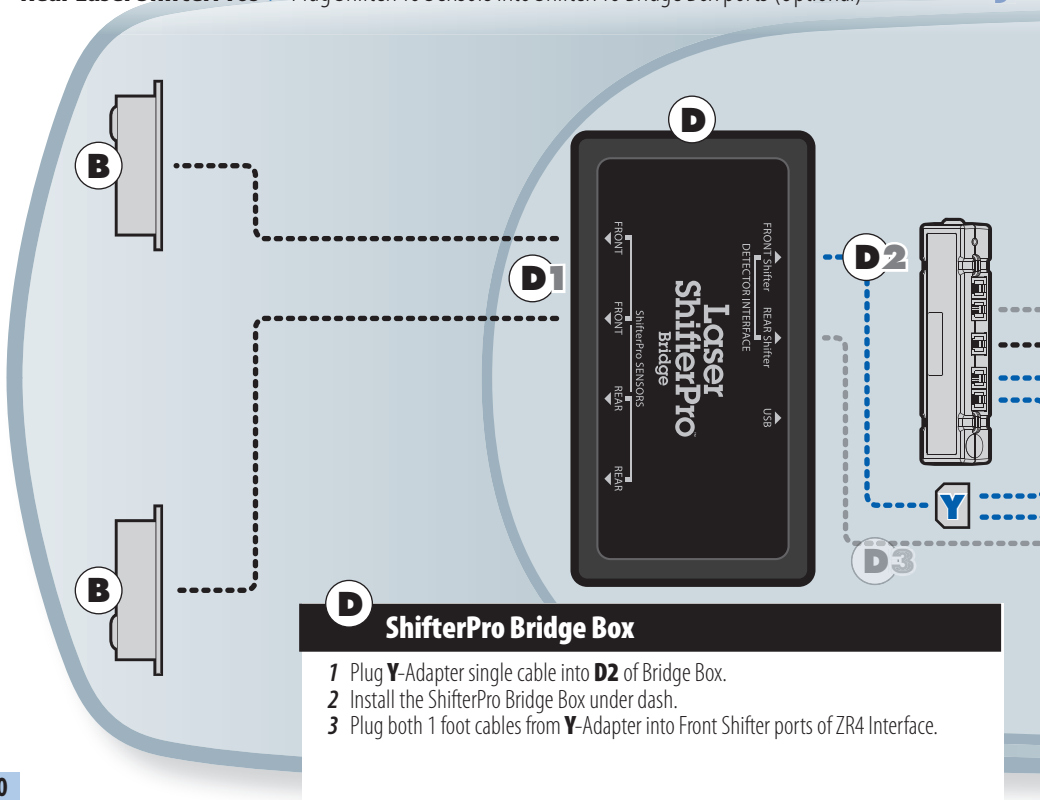
### ShifterPro Bridge USB Port

The USB port on the ShifterPro Bridge Box is used for ShifterPro software updates that are available through ShifterPro Tools at [EscortRadar.com](http://EscortRadar.com). Your Sensors come with the latest code and is not required to update after installation. Go to our website and register for email alerts for updates.

## Installation Schematic Overview For Shifter ZR4

### Letter References For Components

- B Front Laser ShifterPros** > Plug ShifterPro Sensors into ShifterPro Bridge Box ports **D1**
- D ShifterPro Bridge Box** > Plug **Y**-Adapter single cable into **D2** of Bridge Box
  - > Plug both 1 foot cables from **Y**-Adapter into Front Shifter ports of ZR4 Interface
  - > Plug **D3** of Bridge Box into Rear Shifter port of ZR4 Interface
- J Rear Laser ShifterPros** > Plug ShifterPro Sensors into ShifterPro Bridge Box ports (Optional)

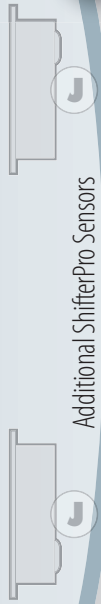


Installation for  
FRONT  
ShifterPro Sensors

Installation for  
REAR  
ShifterPro Sensors



Interior of Vehicle



Additional ShifterPro Sensors

sold separately for rear laser protection

### ShifterPro Bridge USB Port

The USB port on the ShifterPro Bridge Box is used for ShifterPro software updates that are available through ShifterPro Tools at [EscortRadar.com](http://EscortRadar.com). Your Sensors come with the latest code and is not required to update after installation. Go to our website and register for email alerts for updates.

**CINCINNATI  
MICROWAVE®**

CINCINNATI MICROWAVE  
5440 West Chester Road  
West Chester OH 45069  
Sales/Service 800-433-3487  
EscortRadar.com

©2014 CINCINNATI MICROWAVE.  
ESCORT, Laser ShifterPro, Speed Of Light Protection and CINCINNATI MICROWAVE are trademarks of Escort Inc.