



STIR **PLUS**

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

BELTRONICS
5442 West Chester Road
West Chester OH 45069

Service 800.341.
www.beltronics.com

STiR PLUS Comes Complete

Front Radar Receiver

- Miniature weatherproof radar receiver
- Two universal mounting brackets with stainless steel hardware
- Built-in 3-foot cable with waterproof connector
- 13-foot cable with waterproof connector and inline grommet
- 12 nylon wire ties to secure cable



GPS Antenna

- Weatherproof magnetically mounted GPS Antenna
- 30-foot cable with modular connector
- Interior windshield mounting bracket included



Display Module

- Display mounts easily to instrument pod, dashboard, or console
- Bezel provided for optional in-dash mounting
- Adhesive pads provided for secure mounting



In-dash Display Bezel

- In-dash bezel for factory-installed look mounts easily to instrument pod, dashboard, or console
- Integrated adhesive backing for secure mounting



Control Module

- Controller mounts easily to instrument pod, dashboard, or console
- Adhesive pads provided for secure mounting



Interface

- Central module connects to switched 12-volt power and ground
- All components plug directly in using modular connections
- 3M connector taps into existing vehicle wiring



Powered Speaker

- Powerful Amplified speaker provides audible alerts
- Speaker mounting brackets and all hardware provided



Concealed Alert Indicator

- Bi-color indicator is solid green when unit is powered and flashes red during alert
- 6-foot cable with modular connector
- Bezel provided mounts easily to instrument pod, dashboard, or console



Radio Mute Cable

- 6-foot cable connects to compatible vehicle audio systems and automatically mutes the audio during alerts

Download Data Cable

- Provides access to update data via the Internet

Documentation

- Comprehensive Owner's Manual
- Installation guide

Built-in Diagnostics

- Confirms all components are operational

Important Notes

► Read This First

Please read these instructions in their entirety before starting your installation.

For the easiest, trouble-free installation, install the interface first and wire it to a 12-volt switched circuit.

Then, before installing the other components, plug all of them into the interface and power up the unit to confirm proper operation.

Important Installation Warnings

- 1** It is recommended that you have a professional install your new STiR PLUS. 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 STiR PLUS 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 STiR PLUS's warranty.

Performance Warning

To get the best performance possible, the mounting location of the radar receiver is critical. Although radar signals will pass through some types of plastic, mounting the radar receiver so that it has a clear "view" of the road will ensure maximum warning. Laser signals will not pass through objects, including most plastics.

Installation Instructions



Installation Tips

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

- 1** Determine the best location for the radar receiver. The best location is typically under the bumper, or inside the front grill of the vehicle. For the best radar performance, install the radar receiver horizontally, with a clear "view" of the road.
- 2** Entry points into the interior may be located behind the plastic liner in the wheel well, fuse box, or unused grommets.
- 3** 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.
- 4** 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.

- 5** When pulling the inline grommet to the entry point, apply rubbing alcohol to a section of the cable to reduce friction and quickly pull the grommet along the length.
- 6** The cables of units 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.
- 7** 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.

- 8** 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.

A**Interface**

1 Install the Interface under the dash using supplied zip-ties.

Note:

Do Not Mount In Engine Compartment.

2 Connect black wire (-) to ground, and red-striped wire (+) to a switched 12-volt supply. (If STiR PLUS is left in the "on" position, it will automatically power on and off with the ignition). Use blue 3M connector (provided) to tap into an existing circuit if needed.

3 Radar Receiver, Display, Controller, GPS Antenna, Speaker, Concealed Alert Indicator and Radio Mute Cable all plug into the Interface. The connectors are labeled and are color-coded to match a stripe on each cord. Be sure that all components are plugged into the correct connector before applying power to unit.

4 It is recommended that after the Interface is installed and connected to power, all other components are plugged in and tested for proper operation before completing the installation.

B**Front Radar Receiver** White Stripe

1 Determine the best location for the Radar Receiver. The best location is typically under the bumper or inside the front grille of the vehicle. For the best radar performance install the Radar Receiver with the label facing up and the arrow pointing forward, and provide a clear "view" of the road (see photo at right).

2 Using the supplied U-shaped bracket and the right-angle mounting bracket, mark the mounting location. Drill pilot holes in the vehicle if necessary.

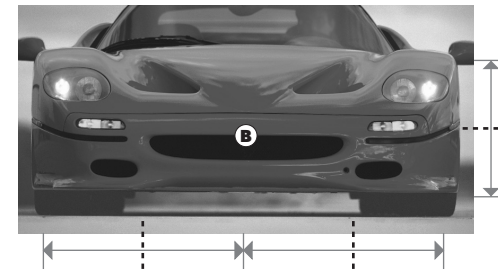
3 Mount the Radar Receiver using the supplied hardware. It is recommended that the Radar Receiver is secured to the brackets first, and then the brackets and Receiver mounted to the vehicle.

Front Radar Receiver (Continued)

4 Plug the Radar Receiver into the harness and route the cable toward the interior of the vehicle. Secure the cable with zip-ties. Although waterproof, it is best to locate the inline connector in a dry area protected from moving parts, road debris, and hot surfaces such as the radiator and radiator hoses.

5 Find a suitable entry point into the vehicle's interior. Refer to the Installation Tips section.

6 Feed the harness into the vehicle's interior and to the Interface. Plug into the connector labeled "Front Receiver."

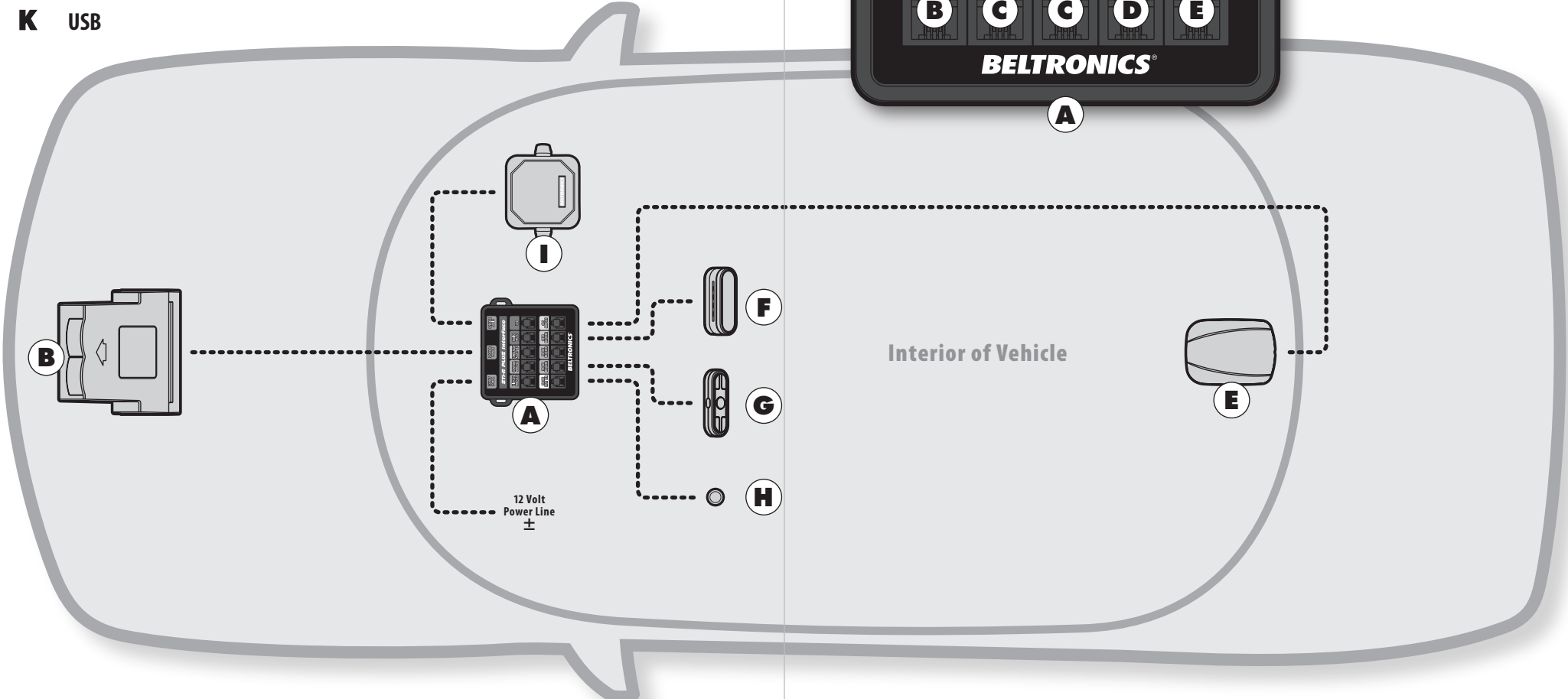
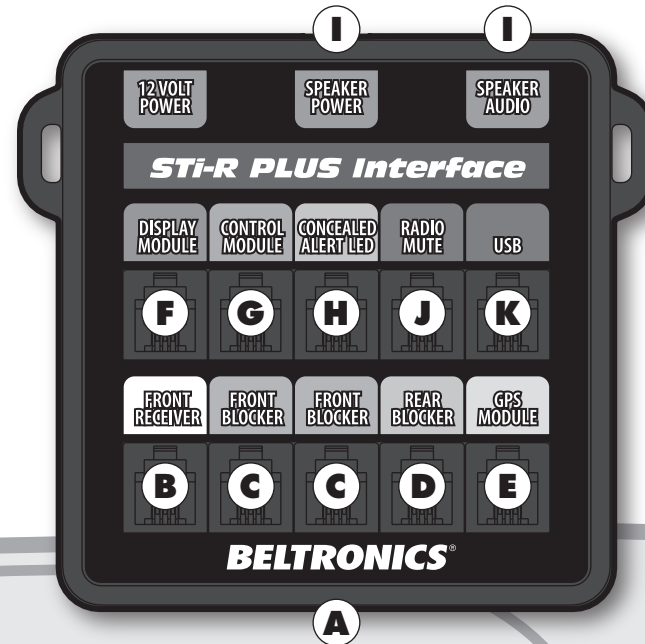


(Continued on page 10)

Installation Schematic Overview

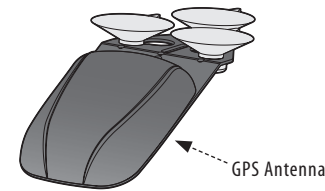
Letter References For Components (Color Coded Connections To Interface)

- A** Interface
- B** Front Radar Receiver (White Stripe)
- C** Front Laser Blockers – **Optional** (Purple Stripe)
- D** Rear Laser Blocker – **Optional** (Green Stripe)
- E** GPS Antenna (Yellow Shrink)
- F** Display Module (Orange Shrink)
- G** Control Module (Blue Shrink)
- H** Concealed Alert Indicator (Gray Shrink)
- I** Powered Speaker
- J** Radio Mute
- K** USB



E**GPS Antenna** Yellow Shrink

- 1** Determine the best location for the GPS antenna. The GPS Antenna requires a clear view of the sky. The magnetic base can be used on most vehicles to mount to the roof of the car or the trunk lid. For vehicles with non-magnetic surfaces such as aluminum or plastic, a window-mounted bracket is included for interior mounting. It can also be mounted to the dashboard or rear deck using double-sided tape.
- 2** Mount the GPS Antenna, being sure that roof racks or other obstructions do not block its view of the GPS satellites.
- 3** Locate a suitable entry point into the vehicle. Refer to the Installation Tips section for locating a suitable entry point.
- 4** Route the cable through the entry point and secure along its path. If mounting near the front or rear window, it is usually possible to tuck the cable under the gasket surrounding the glass.
- 5** Once inside the vehicle's interior, route the cable to the Interface and plug into the connector labeled "GPS Module."
- 6** Secure and conceal the cable under interior trim panels.

Interior Mounting Bracket

- 1** Choose a location on the inside of the windshield or rear window that will provide a wide, clear view of the sky. This is usually near the base of the window or just left of the rearview mirror for metalized windshields.
- 2** Insert the three suction cups into the holes on the mounting bracket.
- 3** Clean window thoroughly with alcohol.
- 4** Place the bracket on the window and press the bases of the suction cups firmly.
 - Tip: To increase the adhesion of the each cup to the window, squirt a small amount of hairspray or other light adhesive onto the surface of the suction cup that mates with the window and then apply firmly.
- 5** Place the GPS Antenna onto the mount using the magnetic base and align the edges. The cable should point toward the window.
- 6** Route the cable to the Interface and plug into the connector labeled "GPS Module."
- 7** Secure and conceal the cable under trim panels.

F**Display Module** Orange Shrink

- 1** Determine the best location for the Display Module. If installed by a professional, the customer should be consulted. An optimal location is clearly visible from the driver's position and does not take a driver's eyes off the road for more than a moment.
- 2** Clean the mounting surface thoroughly.
- 3** Mount the Display using the pre-applied adhesive.
- 4** Route the cable to the Interface and plug into the connector labeled "Display Module."
- 5** Secure and conceal the cable under trim panels.

Display Bezel Mounting

- 1** The supplied display bezel can be used to mount the Display permanently in the dash or console.
- 2** Determine the best location for the Display Module. If installed by a professional, the customer should be consulted. A flat, plastic surface with no obstructions behind it is best for this type of mounting.
- 3** Remove the Display Module's lens by inserting a fingernail at one end to unsnap the lens.
- 4** Replace the front lens with the display bezel by snapping it in place. Ensure that the cable protrudes from the left end when looking at the display bezel with the text oriented properly. A small key in the plastic helps proper assembly.
- 5** Cover the mounting surface with masking tape to prevent accidental scratches.
- 6** Using the supplied hole template, mark the location.

Display Bezel Mounting (Continued)

- 7** Ensure there are no hidden cables, brackets, or other components behind the location, and that there is adequate clearance behind the panel. The Display will protrude into the dash or console by 1/2" to 3/4".
- 8** Very carefully cut the hole in the mounting surface.
- 9** Feed the connector end of the cable through the opening and route to the Interface.
- 10** Remove the masking tape protecting the trim panel.
- 11** Clean the mounting surface thoroughly.
- 12** Apply the double-sided adhesive tape to the display bezel.
- 13** Mount the Display Module using the bezel adhesive.
- 14** Plug the connector into the Interface connector labeled "Display Module."
- 15** Secure and conceal the cable under trim panels.

G**Control Module** Blue Shrink

- 1** Determine the best location for the Control Module. If installed by a professional, the customer should be consulted. An optimal location is easily visible and accessible from the driver's position, and does not interfere with normal driving. Avoid locations that require reaching through or around the steering wheel.
- 2** Clean the mounting surface thoroughly.
- 3** Mount the Control using the pre-applied adhesive.
- 4** Route the cable to the Interface and plug into the connector labeled "Control Module."
- 5** Secure and conceal the cable under trim panels.

H**Concealed Alert Indicator** Gray Shrink

- 1** Determine the best location for the Alert Indicator. If installed by a professional, the customer should be consulted. An optimal location is clearly visible from the driver's position and does not take a driver's eyes off the road for more than a moment.
- 2** Ensure there are no hidden cables, brackets, or other components behind the mounting location, and that there is adequate clearance behind the panel.
- 3** Cover the mounting surface with masking tape to prevent accidental scratches.
- 4** Carefully mark the location and drill a 1/4" hole through the mounting panel.
- 5** Remove the masking tape protecting the trim panel.
- 6** From the front side, snap one of the panel bezels provided into the hole.
- 7** Snap the Alert Indicator into the panel bezel from the back side.
- 8** Route the cable to the Interface and plug into the connector labeled "Concealed Alert LED."
- 9** Secure and conceal the cable under trim panels.

I**Powered Speaker**

- 1** Determine the best location for the Speaker. It is loud enough to be mounted behind the dash or console, under the dash, or under a seat.
- 2** Using either the supplied hook & loop fastener or the bracket and hardware, mount the Speaker. If using the hook & loop fastener, first clean the mounting surface thoroughly.
- 3** Route the cables to the interface and plug into the jacks on the top of the unit marked "Speaker Power" and "Speaker Audio."
- 4** Secure and conceal the cable under trim panels.

J**Radio Mute Cable**

- 1** The radio mute cable (included) allows the detector to be connected to compatible audio systems with a "Radio Mute" wire or connector. Once connected, the audio level of the stereo is reduced automatically during an alert.
- 2** Connect the yellow wire to the mute connection on your radio. Please refer to your audio system's manual for proper connection to your audio system.

Operation Test

After all components are installed correctly:

- 1** Turn STiR PLUS on by turning on the vehicle's ignition and, if necessary, press the power button on the Control Module.
- 2** STiR PLUS will cycle through a startup sequence.
- 3** If any error messages come up, see the Owner's Manual troubleshooting section for suggested solutions.

Download Data Cable

This USB cable allows easy access to the STiR PLUS's database. Once connected, the STiR PLUS can download data directly from our website, and back-up your data to your computer.

The download data includes "safety camera" locations, including red-light and fixed position speed cameras. Other types of threats may be added in the future. Check our website at beltronics.com for the latest information.

Download Data Cable (Continued)

We recommend you install this cable at the time of installation to allow easy access. To do so, simply follow these steps:

- 1** Determine mounting location for USB jack inside vehicle. Optimum location is hidden but easily accessible.
- 2** Thoroughly clean surface to which USB jack will be adhered, as well as surface of USB jack.
- 3** Using double-sided foam tape, (supplied), mount jack as desired.
- 4** Route cable to interface and plug into jack marked "Test".
- 5** Conceal cable under vehicle trim. Once installed, a standard printer cable (included) is needed to connect your computer to this port. Log on to our website for complete download instructions at beltronics.com.



STiR
PLUS