

L A S E R D E F E N S E S Y S T E M

LASER SHIFTING TECHNOLOGY • PROFESSIONAL INSTALLATION



S P E E D O F L I G H T P R O T E C T I O N  
**SHIFTER ZR4**

**CINCINNATI  
MICROWAVE**

## SHIFTER ZR4 Comes Complete

### Front Laser SHIFTERS

- Twin weather-proof sensors
- 16 foot cables with in-line grommets
- Universal mounting brackets with stainless steel hardware

### Miniature Display Controller

- Display Controller mounts easily to instrument pod, dashboard, or console
- Velcro and 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

### Rear Laser SHIFTER

- Weatherproof license plate mounted sensor
- 30-foot cable with modular connector

### Documentation

- Comprehensive Owner's Manual
- Installation Manual

### Built-in Diagnostics

- Confirms all components are operational

**CINCINNATI  
MICROWAVE**

CINCINNATI MICROWAVE  
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## Important Notes

### ► Read This First

Please read both sides of these instructions 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** A professional installer must install your new Laser SHIFTER. Installation of this system requires experience and expertise in automotive electronics. Car audio specialists and many new car dealers can install the Laser SHIFTER 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 SHIFTER's warranty.

### Performance Warning

Since Laser signals will not pass through any objects, including plastic, it is critical that the Laser SHIFTERS be mounted perfectly level, and have an unobstructed "view" of the road.

# SHIFTER ZR4 Installation Manual

## A Display Controller

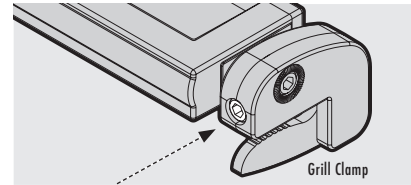
- 1 Determine the best location for the Display Controller in the vehicle's interior. (Consult customer if necessary.)
- 2 Install Display Controller using supplied velcro, or double-sided tape.
- 3 Route cable and plug into jack marked "Display" on Interface.

Note:  
1. Make certain that the Display is clearly visible from the driver's position, and that the controls can be easily accessed without interfering with normal driving.

## B Front Laser SHIFTERS

- 1 Determine best location for the Laser SHIFTERS. For optimum performance, install each laser SHIFTER on either side of the front license plate, with a clear "view" of the road. If possible, center each SHIFTER module between the license plate, and the outside edge of the vehicle. (See photo below at left.)
- 2 Determine which mounting hardware (metal U-bracket or grill clamp) is best suited to the vehicle. Mount the front SHIFTERS to a sturdy part of the grill or bumper. To tighten

the grill clamp, simply insert a 9/64 Allen wrench into the front slot of the clamp. (See illustration below.)



- 3 Before tightening, pull SHIFTER cables through grill area and make

certain that both SHIFTERS (front lens) are level to the road. THEY MUST BE LEVEL TO WORK PROPERLY.

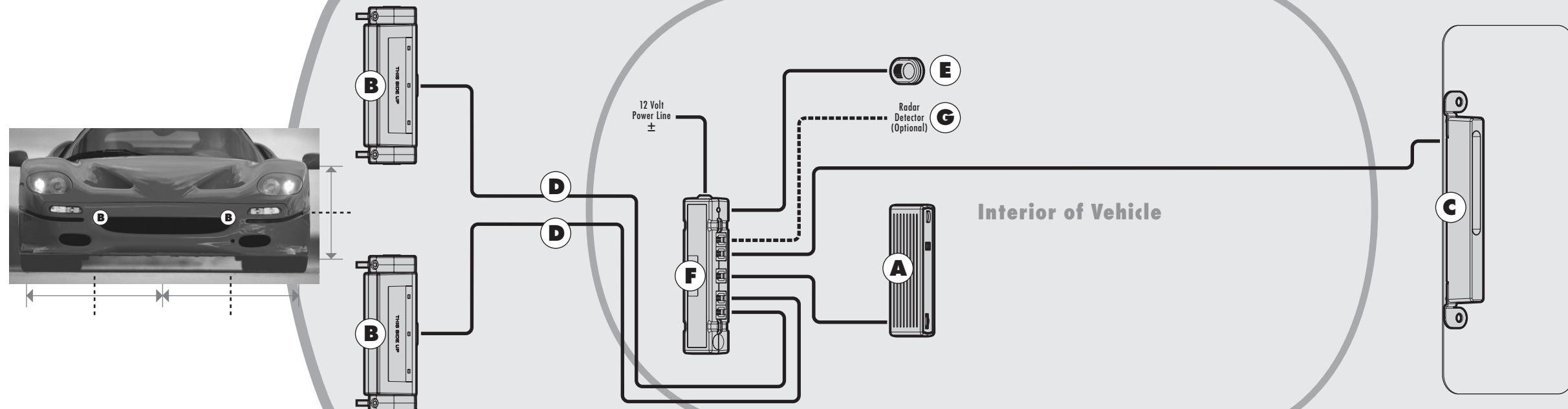
- Note:
1. Thoroughly investigate location of SHIFTERS and cables before installing.
  2. Keep cables completely away from all moving parts and hot surfaces in the engine compartment.
  3. DO NOT SPLICE CABLE unless within interior of vehicle.
  4. Double-check to make certain the SHIFTERS are level and have a clear view of the road.

## C Rear Laser SHIFTER

- 1 Remove two license plate screws (top or bottom).
- 2 Mount Laser SHIFTER to plate using supplied mounting bracket.
- 3 Route wire through trunk compartment, and into the vehicle's interior.
- 4 Insert connector to jack labeled "Rear Shifter" on Interface.

- Tips
1. Do not block license plate illumination.
  2. Do not cover any required license plate information.

- Installation Alternatives:
1. Cable can be routed under vehicle (keep away from hot and moving parts) then brought into the vehicle's interior.
  2. DO NOT SPLICE CABLE unless within interior of vehicle. Reconnect and solder each of the three wires, and seal with heat-shrink tubing.



## D Laser SHIFTER Cables

- 1 Route Laser SHIFTER cables to firewall, and secure with zip-ties (included).
- 2 Route both SHIFTER cables into the vehicle's interior. If there is not a suitable opening, drill a 13/32" or 7/16" hole.
- 3 Pull cables through firewall, and plug into jacks marked Front Shifter 1 and Front Shifter 2 on interface.
- 4 Pull grommet (located on each cable) through the firewall to seal the hole. Use silicone sealant (not supplied) if necessary.

- Note:
1. Only drill hole in firewall after thoroughly investigating location first, ensuring no other wires, hoses, etc. will be damaged.
  2. Keep all cables away from moving parts, and hot surfaces. (Radiator, hoses, etc.)
  3. DO NOT SPLICE CABLE unless within interior of vehicle. Reconnect and solder each of the three wires, and seal with heat-shrink tubing.

## E Remote Mute

- 1 Determine best location for the Remote Mute Button.
- 2 Clean surface area.
- 3 Remove paper backing on the back of the button, and press onto surface.
- 4 Route cable and plug into jack marked "Mute" on Interface.

## F Interface

- 1 Install Interface under the dash using supplied zip-ties. DO NOT MOUNT IN ENGINE COMPARTMENT.
- 2 Connect black wire (-) to ground, and red-striped wire (+) to a switched 12-volt supply. (If the Laser SHIFTER is left in the "on" position, it will automatically power on and off with the ignition.) Use blue 3M connector (provided) to tap into existing circuit if needed.
- 3 Be sure to plug all cables into the correct labeled jacks.

## G Radar Detector (optional)

- 1 Determine best location for your detector.
- 2 Route optional "link" cable to the ZR4 interface and plug into "detector" jack.
- 3 Connect the other end of the cable to the actual detector.
- 4 Refer to the Owner's Manual for programming options.

## Test

- After all components are installed correctly:
- 1 Turn the Laser SHIFTER on by rotating the volume control knob.
  - 2 Turn vehicle's ignition to the "on" position.
  - 3 SHIFTER will cycle through a startup sequence.