

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS FOR VISIBEAM® II WIRELESS, REMOTE CONTROLLED SPOTLIGHT

SAFETY MESSAGE TO INSTALLERS AND USERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this kit: you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- DO NOT install equipment or route wiring or cord in the deployment path of an air bag.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- In order for the light to function properly, a separate ground connection must be made. If practical, it should be connected to the negative battery terminal. At a minimum, it may be attached to a solid metal body or chassis part that will provide an effective ground path as long as the light system is to be used.
- Locate light control so the VEHICLE and CONTROL can be operated safely under all driving conditions.
- Do not attempt to activate or deactivate light control while driving in a hazardous situation.
- You should frequently inspect the light to ensure that it is operating properly and that it is securely attached to the vehicle.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

Changes not expressly approved by Federal Signal could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.

I. UNPACKING.

After unpacking the unit, inspect it for damage that may have occurred in transit. If the unit has been damaged, file a claim immediately with the carrier, stating the extent of damage. Carefully check all envelopes, shipping labels, and tags before removing or destroying them. Ensure that the parts listed in the appropriate KIT CONTENTS LIST are contained in the package.

II. KIT CONTENTS LIST.

ALL SURFACE MOUNT MODELS

Description	Qty.
Screw, #10, Hex	3
Flat Washer, #10	3
Gasket, Mounting	1
Battery cover/ belt clip	1
#4 self tapping screw	1

ALL MAGNETIC MOUNT MODELS

Description	Qty.
Cover, Magnet	1
Label, Caution	1

Battery cover/ belt clip	1
#4 self tapping screw	1

III. DESCRIPTION

The wireless Visibeam provides work light that can be adjusted remotely. It can be rotated horizontally, 360 degrees continuously. It can elevate from 35 degrees down to 105 degrees up . The wireless remote uses 2 AA batteries, and has a range of approximately 125 feet. The wireless Visibeam has the capability to be programmed to read the signals from up to 4 different transmitters.

IV. LIGHT INSTALLATION.

A. Surface Mount Models.

To install the light, proceed as follows:

1. Position the vehicle on a level surface. Select a relatively flat mounting position which provides sufficient rigidity to support the light and reduce vibrations caused when the vehicle is in motion.
2. Push and hold the dome release button (located in the plastic base). Turn the dome counterclockwise and lift the dome off the base (see figure 1).

CAUTION

Turning reflector by hand may damage motor or worm gear. To rotate the reflector, connect to an appropriate power source.

3. Position the light with the dome release button toward the rear at the selected mounting location.

NOTE:

If the installer finds that the light mechanism is in the way, it may be removed as described in Section VI, C.

4. Use the base of the light as a template and scribe three mounting hole drill position marks on the mounting surface. Also, scribe one wire routing hole drill position mark at the center. See figure 1 for a diagram.

CAUTION

To avoid damage when drilling, ensure that both sides of mounting surface are clear of any parts or wires. Also, when drilling any holes, ensure that holes are drilled only through sheet metal and not through upholstery.

5. Drill one 3/8" (0.375") hole (wire routing hole) at the previously scribed center drill position mark. Drill three 9/64" (0.140") holes (mounting holes) at the previously scribed mounting screw position marks.
6. To protect the wires from abrasion and shorting, smooth the edges of the 3/8" wire routing hole. A user supplied grommet should be installed in the 3/8" wire routing hole.
7. See figure 2. Align the holes in the mounting gasket with the appropriate holes in the base and apply the mounting gasket to the base of the light . Route the light's wires through the gasket's wire routing hole and through the mounting surface.
8. If the screws and/or wires enter a compartment that is to remain dry, apply a silicone sealing compound around the screws and wires where they pass through the mounting surface to prevent leakage.
9. See figure 2. Secure the base to the mounting surface with the three #10 thread-forming screws and flat washers.
10. Replace the mechanism after securing the base, by aligning the narrower front tabs with the matching features in the base. Slide the assembly until the wider, rear tabs snap into their matching holders.
11. Replace the dome (unless multiple controllers are to be used with this light. See section D).
12. Connect the light's black wire to a known good vehicle ground.
13. Connect the light's red wire to one side of an installer-supplied fuse holder. Connect the other side of the fuse holder to a suitable, positive source of power that is switched by the key(recommended) or the positive (+) terminal of the vehicle's battery (a switch rated for 10 amps is recommended to enable control of the power to the light). Install a six (6) amp fuse in the fuse holder.

B. Pipe Mount Models.

1. Route the light's wires through the pipe that will be used for mounting the light. If they need to be extended, use 16 gauge wire. For long runs, select heavier gauge wire.
2. Screw the flange mount light onto the pipe. Position the light with the dome release button toward the rear.
3. Connect the light's black wire to a known good vehicle ground.
4. Connect the light's red wire to one side of a user-supplied fuse holder. Connect the other side of the fuse holder to a suitable, positive source of power that is switched by the key(recommended) or the positive (+) terminal of the vehicle's battery (a switch rated for 10 amps is recommended). Install a six (6) amp fuse in the fuse holder.

C. Magnetic Mount Models.

Magnetic mounting provides a secure, temporary mounting method for most installations. However, it is not intended for use on the exterior of a moving vehicle.

WARNING

Because vehicle roof construction and driving conditions vary, Federal does not recommend driving a vehicle with a magnetically mounted warning light installed. The light could fly off the vehicle causing injury or damage. Repair of damage incurred because of ignoring this warning shall be the sole responsibility of the user. Holding power of magnetic mounting systems is dependent upon surface finish, surface flatness, and thickness of the steel mounting surface. Therefore, to promote proper magnetic mounting:

- Mounting surface and magnets must be kept clean, dry, and free of foreign particles that prevent good surface contact.
 - Ensure that mounting surface is flat.
 - Magnet mounting system should not be used on vehicles with vinyl tops.
 - To prevent sliding of light assembly on mounting surface, quick acceleration and hard stops should be avoided.
 - If the light is to be held directly to the roof by the magnet, ensure that the power cable is not under the magnet.
1. Place the light assembly on a level steel surface. Ensure that the light is placed to promote maximum coverage and range of the work light.
 2. Insert the plug on the end of the power cord into the cigar lighter socket.
 3. Use the power switch at the plug to turn power on and off when not needed. A pilot light on the switch will illuminate when the power is on.

NOTE

The lighter plug has an integral fuse and power switch. The switch may be used to remove power from the light. If direct connection to the power source (not utilizing the cigar lighter plug) is desired, a user-supplied inline fuse holder and eight-ampere fuse must be installed in the power cord's ribbed (positive) lead.

D. Transmitter set up:

FCC warnings: interference, modifications etc.

Refer to figure 3. Insert two AA alkaline batteries as shown to match the illustration on the pc board.

Slide the battery cover/belt clip over the end of the batteries and secure with the #4 screw provided.

Note;

Remove the batteries for extended storage periods.

E. Programming

The controller shipped with the light has already been programmed into the receivers memory. To program the Visibeam to respond to an additional transmitter, remove the dome and refer to figure 4.

1. Depress the “learn” button on the receiver. The indicator light will remain on continuously.

2. Depress any key on the new transmitter and the indicator light will go out.

3. Depress the same transmitter key for a second time and the indicator light will flash rapidly for a short time, indicating that the remote is now programmed into the memory.

Note: Up to 4 transmitters can be programmed to operate an individual Visibeam. When a fifth transmitter is programmed in, the first is deleted from the memory, and will no longer operate the unit.

An individual transmitter may be programmed into any number of receivers. However all receivers in the vicinity of a transmitter which are trained to read it will operate when its keys are pressed.

V. OPERATION.

A. See figure 5. To move the spotlight reflector, depress the key for the direction desired. It is not necessary to illuminate the lamp to move the reflector.

B. To illuminate or extinguish the lamp, press and release the red, oval button at the center of the control.

C. The transmit indicator will flash when any key is depressed indicating transmission.

D. At close range the transmitter may be held in any orientation comfortable. At extreme distances, the transmitter should be held upright, see figure 6. This will orient the internal antenna for the best signal.

VI. MAINTENANCE.

A. *General.*

WARNING

Crazing (cracking) of domes will cause reduced effectiveness of the light. Do not use cleaning agents (which will cause crazing) such as strong detergents, solvents, or petroleum products. If crazing of dome does occur, light output may be reduced until dome is replaced.

1. The dome can be cleaned using a non-abrasive, high quality, automotive paste wax and a soft cloth.
2. On magnetic mount lights, periodically inspect the magnet for dirt and metal shavings. Clean the magnet as necessary. Keep the area around the magnetic mount light free of dirt and metal shavings.
3. Apply a film of light grease to the gears when necessary.

B. Lamp Replacement (see figure 7).

WARNING

A serious injury may result if lamp is touched when hot. Always allow lamp to cool before removing. Halogen lamps are pressurized and if broken can result in flying glass. Always wear gloves and eye protection when handling the lamps.

CAUTION

Service life of lamp will be shortened if glass portion is touched. If glass has been handled, clean carefully with a grease solvent.

1. Move the reflector until the back of the lamp is easily accessible.
2. Disconnect the lamp connector.
3. Release the lamp spring clip by pressing inward and to the side on the lamp spring clip ends.
4. Remove the lamp by pulling it away from the reflector and past the vertical motion cable and spring clip.
5. Replace the lamp by performing the above steps in reverse order.

C. Mechanism Removal for Servicing (see figure 8).

1. Disconnect power to the light.
2. See figure 1. Push and hold the dome release button (located in the plastic base). Turn the dome counterclockwise and lift the dome off the base.
3. Disconnect the positive and negative wires which exit the light.

4. Insert a screwdriver into each release tab opening. The openings are marked on the PC board. Push down the release tabs, and pry to slide the mechanism off of the mounting tabs. Lift the mechanism out of the base.

5. Replace the mechanism after servicing by aligning the narrower, front tabs with the matching features in the base. Slide the assembly until the wider, rear tabs snap into their matching holders.