INSTALLATION & OPERATION MANUAL

92642Y, 92643Y, 92644Y

12/24V MODELS PERMANENT, MAGNETIC MOUNT BEACONS

WARNING!

The use of this or any warning device does not insure that all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes.

The effectiveness of this warning device is highly dependent upon correct mounting and wiring. Read and follow the manufacturer's instructions before installing or using this device. The vehicle operator should insure daily that all features of the device operate correctly. In use, the vehicle operator should insure the projection of the warning signal is not blocked by vehicle components (i.e. open trunks or compartment doors), people, vehicles, or other obstructions.

This equipment is intended for use by authorized personnel only. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should check all applicable city, state and federal laws and regulations.

Manufacturer assumes no liability for any loss resulting from the use of this warning device.

Proper installation is vital to the performance of this warning device and the safe operation of the emergency vehicle. It is important to recognize that the operator of the emergency vehicle is under psychological and physiological stress caused by the emergency situation. The warning device should be installed in such a manner as to: A) Not reduce the output performance of the system, B) Place the controls within convenient reach of the operator so that he can operate the system without losing eye contact with the roadway.

Emergency warning devices often require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.

PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

Unpacking & Pre-installation

Carefully remove the beacon and place it on a flat surface, taking care not to scratch the lens. Examine the unit for transit damage, broken lamps, etc.

If it is convenient, you may wish to test the unit before installation. To test, touch the black wire to the negative ground (earth) and the red wire to the +12 Volts D.C. A battery may be used for this purpose. If the vehicle has an electrical system other than 12 Volts D.C. negative ground (earth), and you have not ordered a specially wired beacon, contact your local representative or call the factory for instructions.

Installation & Mounting

The Beacon may be mounted magnetically or permanently on the roof of the vehicle, or other mounting surface.

GENERAL

All devices should be mounted in accordance with the manufacturer's instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (SRS) **will** affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Front or rear grille/bumper placement must avoid interference with SRS sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving, sudden braking or collision. Failure to follow instructions can result in personal injury.

Magnetic Mounting

WARNING!

1) Rust Stains: The magnetic mount is not intended as a permanent mounting for the beacon. Long duration usage of any magnet will expose the high iron content of the steel causing rust. The device should be removed when not used to prevent rust stains. Metallic debris collected by the magnet will also contribute to rust stains. Insure that the magnet is kept clean.
2) Surface rust stains can usually be removed with chrome polish, available at most auto part stores.
3) As with any magnetically-mounted warning device, its use on the exterior of a moving vehicle is at the sole discretion and responsibility of the user.
This magnetic mount product provides a secure, temporary installation in most circumstances and is recommended for stationary use only. For maximum warning signal, mount the beacon on the highest possible flat, level surface of the vehicle.

The Magnetic Based Beacon provides a secure, temporary installation in most circumstances. The beacon should be placed in the center of the roof where the least amount of curvature occurs. The beacon should not be used on a vinyl covered roof. Before installing, check all four magnets for clinging debris. Any foreign matter can reduce holding power and scratch your vehicle's paint. The roof surface should be dry and have a dull, not glossy finish. A glossy, highly waxed finish will reduce the friction; and the magnets, though quite powerful, will have a greatly reduced effect. Place and remove your beacon without sliding to avoid scratching. When removing, lift one edge then the other, straight up without sliding.

When the beacon is placed on the roof, it should adhere firmly to the surface. If the unit slides or moves easily, a proper installation has not been achieved, most probably for one of the reasons mentioned above. In this situation, the user should not attempt to drive with the beacon in place. If the user has attempted to obtain a good installation and still has questions, we recommend that the user (customer) contact one's distributor or the factory.

Permanent Mounting

The Permanent Mount Beacon provides a secure, permanent installation. To begin installation, remove lens and mark centers for mounting holes on vehicle roof or mounting surface, using the base as a template, and consider where wire routing will be. Drill a 7/32" hole through all 4 centers, DO NOT DRILL THROUGH BEACON BASE, and remove any burrs. Run 3/16" x 1" machine screws with lock washers, obtained locally, up through drilled holes (For thicker surfaces use longer screws). Make sure all 4 screws are pointing up. Place supplied mounting pads in position, (If not already attached to base), refer to Figure 1. Place frame in proper position making sure all 4 screws line up with base mounting holes. Place one nut onto each screw and tighten screws until base is properly secured to mounting surface. Make sure that the nuts have seated themselves into the matching shape in the frame. Once frame is secure, replace lens and tighten the two end screws.

Wiring Instructions

WARNING!

Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connectors (e.g. 3M® Scotchlock type connectors). Route wiring using grommets and sealant when passing through compartment walls. Minimize the number of splices to reduce voltage drop. High ambient temperatures (e.g. under-hood) will significantly reduce the current carrying capacity of wires, fuses, and circuit breakers. Use "SXL" type wire in engine compartment. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.

Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect the wiring and devices.

Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity.

Ground terminations should only be made to substantial chassis components, preferably directly to the vehicle battery.

The user should install a fuse sized to approximately 125% of the maximum Amp capacity in the supply line to protect against short circuits. For example, a 30 Amp fuse should carry a maximum of 24 Amps. DO NOT USE 1/4" DIAMETER GLASS FUSES AS THEY ARE NOT SUITABLE FOR CONTINUOUS DUTY IN SIZES ABOVE 15 AMPS. Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.

92643Y 92644Y Magnetic Mount Beacon - The Beacon can be equipped with a cord that plugs into a 12/24 Volt D.C. cigarette lighter; rotate and push with reasonably moderate force which insures the best possible connection.

92642Y Permanent Mount Beacon - The beacon is designed to operate on a 12 Volt D.C. negative ground (earth) system or alternatively 24 Volt system when specified. Use #14 GA. or larger wires. Connect black lead to vehicle chassis (earth), or preferably the negative (earth) terminal of the battery. Bring the red lead to the user supplied control switch, and then to the battery or to the stud on the battery side of the starter solenoid or alternator. Install a fuse or circuit breaker of 10 Amp capacity in the supply line to protect the vehicle's wiring system against short circuits.

Maintenance

Do not oil or grease this unit. It is constructed with permanently lubricated bearings and plastic gears which do not need lubrication. Keep the unit clean by disassembling it and cleaning bearing surfaces with mineral spirits (turpentine), and clear any debris out of the drive gears. Clean lens and base with mild soap and water, or lens polish using a soft cloth.

WARNING!

Lamps are extremely hot! Allow to cool completely before attempting to remove. Gloves and eye protection should be worn when handling halogen lamps as they are pressurized and accidental breakage can result in flying glass.

Use no SOLVENTS on lens.

Failure to follow above warnings or installation and user instructions can result in loss of warranty coverage.

Parts & Exploded Views

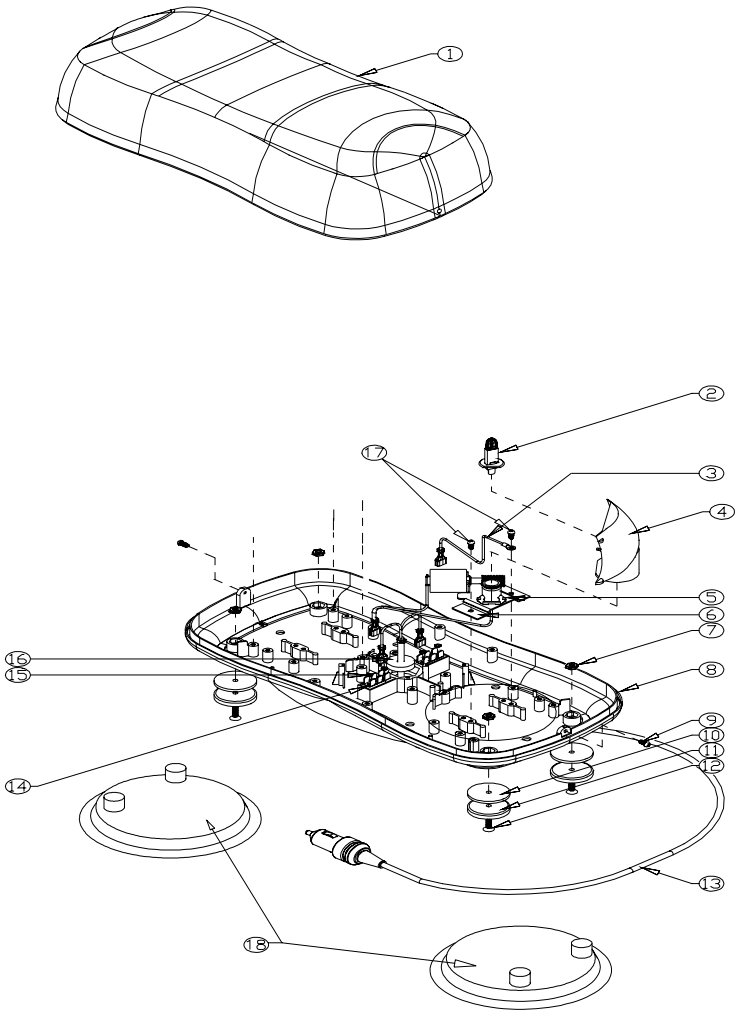

FIGURE 1

Parts List

Ref No.	Description	Part No.	Qty.
1	Lens		1
	ECE/SAE Amber	T09354	
2	Bulb - 55 Watt H-1 12 volt Halogen	T01543	2
3	6" Ground Wire w/ Ring Lug	T02809	1
4	Rotating Reflector Assembly	S92792-S95977	2
5	Lamp Retaining Clip	T04933	2
6	Rotator Motor Assy--(Does not include Reflector Assy)		
	Rotator Motor Assy 55W H-1 Std Speed	S95978	2
	Rotator Motor Assy 55W H-1 Fast Speed	S95979	2
	Rotator Module (Includes Reflector Assy & Lamp)		
	Rotator Module 55W h-1 Std Speed	S95983	2
	Rotator Module 55W H-1 Fast Speed	S95984	2
7	Hex Nut w/nylon insert 10-24	T05501	4
8	Base	T09360	1
9	Screws #10 x 1/2" Hex Hd.	T01846	2
10	Spacer Pad	T01642	4
11	Magnet	T01587	4
12	Screw #10-24 x 3/4" Phil flat head	T00090	4
13	Cigarette Lighter Plug Power Cord	T00502	1
14	6 way Male Terminal	T09363	2
15	Retaining Ring	T09366	4
16	Gasket & Plug	T05116	1
17	Screws #6 x 3/8" Hex. Hd. Blk.	T02797	10
18	Suction Mag Mount	T09365	2

Parts Not Shown

Label	T09368	1
Mirror Diamond	S51104	1
Beacon Hook-up Wire Mod. 12.5'	S85375	1