



INSTALLATION AND OPERATING INSTRUCTIONS FOR MODEL 210504 12-24VDC BACKUP ALARM

SAFETY MESSAGE TO INSTALLERS OF FEDERAL SIGNAL BACKUP ALARMS

People's lives depend on your safe installation of our products in conformance with our instructions. It is necessary 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.

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

- To properly install a backup alarm: you must have a good understanding of truck and heavy equipment electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Locate Backup Alarm so it will operate safely under all conditions. The location must provide protection from impact and adverse weather conditions while allowing unobstructed sound projection to the target hazard area.
- You should frequently inspect the Backup Alarm system 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.

A. GENERAL.

The Model 210504 self-adjusting Backup Alarm is a solid state audible warning device enclosed in a weatherproof housing. When activated, the Backup Alarm produces a tone with a sound intensity of 112 to 87dbA at 4 feet. This tone is interrupted at a rate of approximately 90 times per minute with equal on and off times.

B. SPECIFICATIONS.

Operating Voltage	9.8VDC to 36VDC
System Voltage	12 to 24 volt systems
Operating Current	0.50 A
Sound Output Level*	112 - 87dBA (± 4 dB) @ 4 ft.
Temperature Range	-40° C to +85° C
Dimensions Overall	5" x 4" x 3"
Net Weight	1 lb. 8 oz.
Housing	Steam Cleanable, Weatherproof Plastic

* Equal on and off intervals with approximately 90 cycles per minute.

C. INSTALLATION.

WARNING

Since this alarm is designed to concentrate its audible alarm in the target hazard area only, it should be mounted approximately 4 ft. above ground level with the unit's grill facing the target hazard area.

Also, the Model 260 MUST HEAR the surrounding noise level to properly adjust its sound output. Mount without obstruction in the listening field.

1. Select a mounting location at the rear of the vehicle that will provide protection from impact and adverse weather conditions while allowing unobstructed sound projection to the target hazard area.

A suggested location is on the rear of the vehicle, just inside the last cross member or other sturdy part of the body structure. The alarm's "L-type" mounting configuration provides mounting flexibility and allows installation in a variety of locations.

2. See figure 1. Using the alarm's housing as a template, scribe two drill position marks through the holes in the mounting flanges (one on each side of the housing). Drill 21/64" holes at the position marks.

3. Secure the unit on the vehicle with user-supplied 5/16" bolts and locknuts or user-supplied 5/16" bolts, lockwashers, and nuts.

WARNING

Improper grounding could result in death or serious injury to those who rely on this device for safety. The ground connection (-) **MUST** be attached to a solid metal body or chassis part that will provide a dependable ground path as long as the device is to be used.

4. Using two 16 GA user-supplied wires, complete the wiring as shown in figure 2. The plus (+) and minus (-) connections are marked on the housing.

NOTE

The Backup Alarm is sensitive to polarity and will not operate when connected backwards.

SAFETY MESSAGE TO OPERATORS OF FEDERAL SIGNAL BACKUP ALARMS

- Should the alarm become inoperative, it could jeopardize the safety or lives of those who depend on the alarm signal for safety.
- Testing the Backup Alarm should be listed on the daily maintenance report. The units on operating vehicles must be tested each day prior to the vehicles' operation. Results of this test must be recorded in the maintenance file.
- Notify your supervisor that people operating this equipment **MUST** check for proper operation at the beginning of every shift.

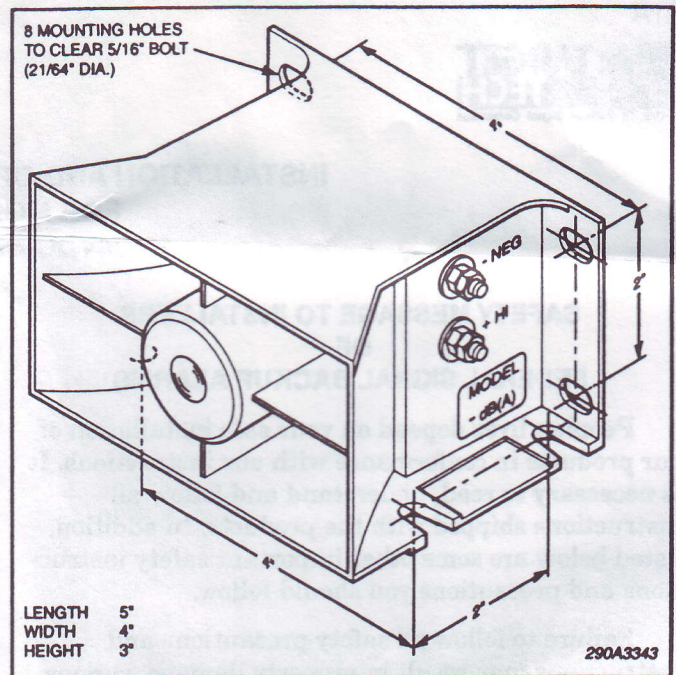


Figure 1.

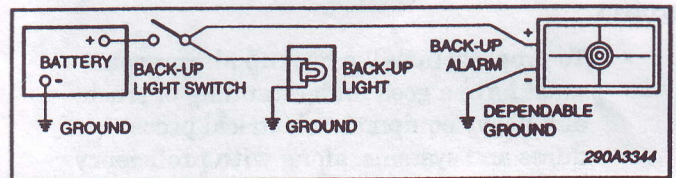


Figure 2.