



# INSTALLATION INSTRUCTIONS

## PRO-TEC™ BACK-UP ALARM

### MODEL BA-97

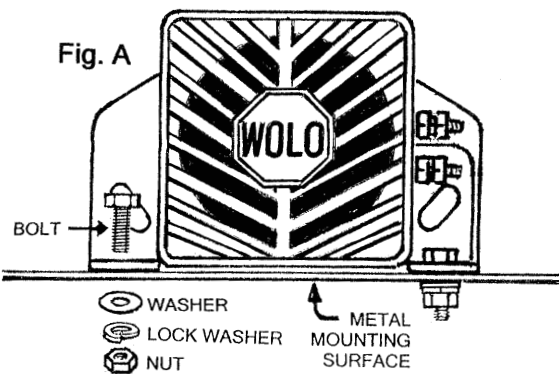
The addition of Wolo's Pro-Tec Back-Up Alarm will provide a warning sound when the vehicle is shifted into reverse. The Wolo name, with more than twenty years experience is your guarantee of a superior product. Back-up alarms are designed to provide a warning sound to alert people of the hazardous condition of a vehicle being operated in reverse. People's lives depend on proper installation of this alarm. Make sure the person that is installing this alarm reads, understands and follows these instructions.

The Wolo Pro-Tec back-up alarm will automatically turn on with a beeping sound when the vehicle is in reverse, when wired correctly at an operating voltage of 12-24 volts. Never install the Pro-Tec alarm in a confined area or in a compartment where the sound level of the alarm can be reduced. Never spray any coating such as paint, undercoating and etc. into the alarm's open grill. Doing such could impair the alarm. **IMPORTANT:** Operation of a vehicle in a noisy environment may require a louder back-up warning alarm. Always install a back-up alarm that is louder than the surrounding noise.

The Pro-Tec alarm is designed for commercial usage. Inspect the vehicles back-up alarm system every day before operating vehicle. This back-up alarm should be used for BACK-UP warning operation only. The sound of this alarm is generally recognized as a warning for a vehicle that is being driven in reverse. Operating a machine or vehicle with an inoperative back-up alarm system, could endanger lives and or property. Never operate machine or vehicle if alarm is not functioning properly and affix a warning label to dashboard in plain view of an operator.

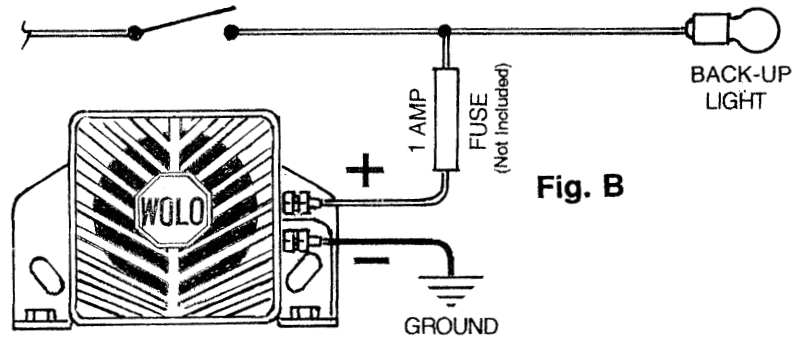
### MOUNTING

1. Select a mounting location at the rear of the vehicle that will permit the alarm's sound to be unobstructed. Also, the mounting location should provide protection from wet conditions and possible impact to the alarm. The alarm's front grill should be mounted facing the targeted hazard area. Mount the alarm at an approximate height of four (4) foot above ground level.
2. The alarm's L-type mounting configuration provides an easy mounting and installation. Use the alarm's mounting bracket as template, mark one (1) hole location on each side of the alarm and drill to size 1/4".
3. Secure the alarm to the vehicle using the hardware provided, see Fig. A.



### WIRING (See Fig. B.)

4. The Pro-Tec Alarm's (+) **screw terminal** is connected to the vehicles power wire of either the reverse switch or back-up light. The back-up light has the clear lens. To protect the vehicle a one (1) amp fuse must always be used, (not provided).
5. The Pro-Tec Alarm's (-) **screw terminal** is self-grounding, no wire is required if the alarm is secure to a metal body surface. **IMPORTANT: Do not remove the metal tab connected to the (-) screw terminal.** If the alarm is not mounted on a metal body surface, connect the (-) screw terminal to body ground. Be sure to clean the ground surface to be free of rust and paint to assure good ground connection with wire.
6. **NOTE:** The back-up alarm must be wired as above steps 4 & 5. If the polarity is reversed, the alarms will not operate. This



alarm must have a good connection to both power and ground to work reliably. Use 18-gauge wire (minimum) to lengthen wire leads if required. Make sure that all wires are secured and inspect to insure that they will not interfere with vehicles operation. Always make sure that any wiring is in accordance with the vehicle manufacturer's recommendations.

7. Affix the warning label provided to the dashboard of the vehicle always in plain sight of the operator.