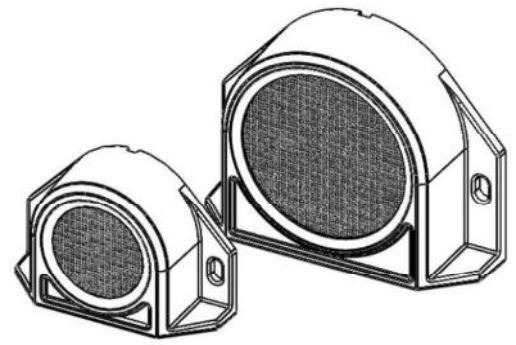




60, 61, 62, and 99901 Series Back-up Alarms

The following is a list of recommended practices for the installation and operation of your device.

FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures. You may need to consult a professional for installation.
- SWS Warning Systems Inc. recommends the use of waterproof butt splices and/or connectors for all electrical connections. It is recommended that the use of good dielectric grease be used on all connections where possible.
- SWS Warning Systems Inc. does not recommend leaving a magnetically mounted device on a vehicle while the vehicle is in motion. The owner does so at their own risk.
- If mounting this product requires drilling holes, the installer must be sure that no vehicle components or other vital parts could be damaged by the drilling process. Also de-burr the holes and remove any metal shards or remnants. Grommets are recommended for all wire holes.
- Do not mount the product close to antennae or radio equipment, as they may cause electromagnetic interference. After installation of the product, it is necessary to test all electronic equipment simultaneously to ensure that they operate free of interference from other components within the vehicle.
- Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment.
- Do not install this product or route any wires in the deployment area of your air bag or areas that interfere with the operation of the vehicle. Refer to your vehicle owner's manual for the air bag deployment area and recommended mounting areas for warning lights and other equipment.
- Do not place product near the ear. Temporary deafness or other injury may occur.
- Use only soap and water to clean the product.
- Do not use a pressure washer to clean this product.
- Inspect and operate this product regularly to confirm its proper operation and mounting condition.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- SWS Warning Systems Inc. and its subsidiaries are not responsible for any damages due to improperly mounted or improperly wired lighting equipment.

Mounting

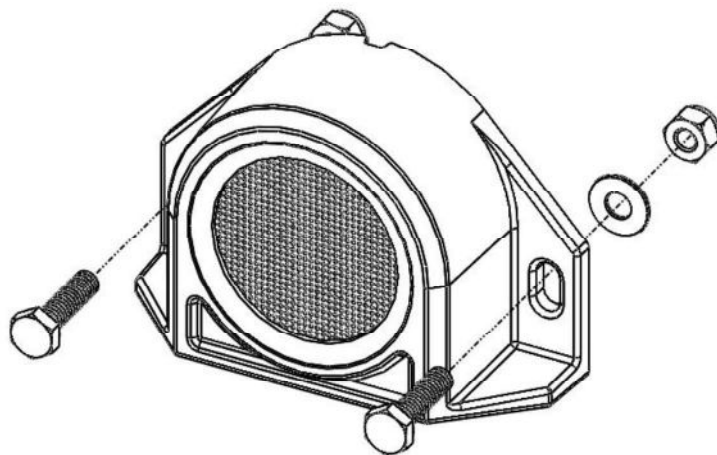
The Back-up Alarm (BUA) is not sold with any hardware. Please use 1/4" hardware to mount the product.

1. Using the BUA as a template, mark the two mounting holes on the mounting surface.
2. Using a 3/8" drill bit, drill two holes into the mounting surface.
3. Pass the bolts through the BUA, through the mounting surface, and secure with washers and nuts on the other side.
4. **Do not over tighten** the nuts, as it could damage the BUA housing.

Wiring

All back-up alarms need an appropriate switch. If your back-up alarm is purchased with a switch refer to the switch instructions for the power connections to both the battery and the alarm.

- Minimum wire gauge is 20AWG for all power connections.
- All extension wires need to be appropriately sized depending upon the length that they are to travel. SWS recommends that for every 10ft. of length, the gauge be increased (i.e. for a length of 20ft, the power wires should be 16-18AWG).
- If you are unsure of your wire gauge or want to use a lesser gauge, check the voltage at the end of the wire length to ensure the light will receive adequate power.



1. Connect the RED wire or positive terminal of the back-up alarm to a fused connection to the positive connection from the battery or the positive lead from the switch.
2. Connect the BLACK wire or negative terminal of the back-up alarm to the vehicle chassis ground or negative battery connection.
3. If selecting a different tone from the table below, connect appropriate wires to vehicle chassis ground.
4. Be sure to terminate and stow away any unused wires to prevent accidental activation of an unwanted tone.

Model 99901 only has one tone: 97db Single Tone.

Model	Output Signal	Connections to Ground
60 & 62	87dB Single Tone	Blue & White
60 & 62	97dB Single Tone	Blue & Yellow
60 & 62	102dB Single Tone	Blue
60 & 62	107db Single Tone	None
60 & 62	112dB Single Tone	Yellow
60 & 62	97dB Dual Tone	White
60 & 62	102dB Dual Tone	White & Yellow
60 & 62	107dB Steady Tone	White, Yellow & Blue
61	107db Single Tone	None
61	112dB Single Tone	Yellow
61	107db Steady Tone	Blue
61	112dB Steady Tone	Blue & Yellow
61	107dB Dual Tone	White
61	112dB Dual Tone	White & Yellow

Trouble Shooting

If your product fails to work, please follow these troubleshooting tips before calling the factory:

- Check all connections for breakage or corrosion.
- Check to see if the fuse has blown within the vehicle. If it has, replace with a fuse of the exact same amp rating.
- For long power wire lengths, ensure the voltage at the product connection is adequate. If not, you may have to shorten the length or increase the wire gauge.
- Ensure vehicle's battery is charged and that the charging system is functional.

CALL SWS WARNING SYSTEMS INC. (1-877-357-0222) FOR FURTHER ASSISTANCE