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(717) 661-7041

STATIONARY STEAM LOCOMOTIVE WHISTLE

CAUTION – THIS DEVICE CAN BE DAMAGED BY STATIC DISCHARGE. PLEASE EXERCISE CARE DURING INSTALLATION TO AVOID THIS POSSIBILITY.

PLEASE READ INSTRUCTION SHEET COMPLETELY BEFORE ATTEMPTING TO INSTALL AND OPERATE THIS PRODUCT.

OVERVIEW

The STATIONARY STEAM LOCOMOTIVE WHISTLE features two separate whistles with eight user selectable variations of each whistle. One whistle represents a multi-chime as was generally found on passenger locomotives while the other is a single chime which was common for freight or switching locomotives. The eight variations result from changing the pitch of the whistle sound which simulates differences in steam boiler pressures and/or differences in the openings of the whistle castings themselves. The is powered by 12–16 Volts AC or DC, and is activated manually with a push button switch. A three inch speaker is included and volume is user adjustable.

The sounds used on STATIONARY STEAM LOCOMOTIVE WHISTLE #1 are from recordings of READING COMPANY whistles which were used on IRON HORSE RAMBLES utilizing locomotives 2124 (G class passenger whistle) and 2100 (T class freight whistle).

INITIAL CONNECTION INSTRUCTIONS

The STATIONARY STEAM LOCOMOTIVE WHISTLE is completely assembled, except for the speaker, on a 5.75 X 2.75 inch circuit board which has standoffs at the four corners for easy mounting with #6 screws. Viewing the circuit board with the terminal connectors to the left, note the two pin connector labeled "SPKR" and the potentiometer labeled "VOL" along the lower edge. The supplied speaker needs to be mounted in an enclosure for proper sound. The 3" speaker supplied can be mounted in a panel, using the rear part of the speaker towards the layout, as the chamber or simply place the speaker in a cardboard tube. Just laying the speaker in free air does not produce any appreciable sound or fidelity. The least of all would be a styrofoam cup. A 3" hole could also be made a long the edge of a mountain or skirt to hold the speaker. In some cases it is not necessary to enclose the back of the speaker since the surrounding building / mountain would act as a proper baffle. The speaker has two terminals that need to connect to the flying leads from the two pin connector. Since speakers are mounted at different locations, wire needs to be soldered to the speaker terminals. This pair of wires then needs to be soldered or connected with wire nuts to the pair of wires from the two pin connector. Make sure that no shorts exist and that no contact can be made to any other object by properly insulating with electrical tape or heatshrink tubing. Any soldering to the board will void any warranty / repairs. All other connections are made at the terminal connectors at the left of the circuit board. While input power can be from 12 to 16 volts AC or DC, it is not necessary to exceed 12 volts. The input power is connected to terminals labeled "AC" or "6" and "7". Terminal "5" or "C" and Terminal "8" or "SW" are used to connect the push button switch which activates the horn. The push button switch is supplied with wire attached. More wire can be attached if needed. Be sure to have all components connected correctly before any power is applied to the board! If you missed plugging the speaker into the connector, turn the power off, wait 30 seconds, plug the speaker in and then re-apply power. Failure to do so could cause failure in the audio amplifier.

INSTALLATION & OPERATING INSTRUCTIONS

In the upper right corner of the circuit board, just below the mounting stand off, you will find a block of four mini-rocker switches which control variations in the operating characteristics of the STATIONARY STEAM LOCOMOTIVE WHISTLE . The upper switch "4" is used to choose between the two whistles. The remaining three switches are used to vary the pitch of the selected whistle. The midpoint of the pitch range is selected with all three switches "off".

Pick your location on the layout and mount the circuit board and the speaker (if not already done by now). As information, a styrofoam cup (coffee cup) makes an excellent mounting and sound chamber for the speaker. Connect your AC or DC input power (12–16 volts, 12 preferred) to terminals 6 & 7. Connect the wires from the push button switch to terminals 5 & 8. If additional wire is needed simply splice to the wire that is furnished with the switch. If you need a power source, Items 651 or 689 are ideal for this use (you can connect more than one stationary sound unit to one of these).

As you press the push button switch the whistle will sound. Use the volume control to set an adequate level for your layout and rocker switch "4" to select either "off" for a passenger or "on" for a freight whistle. Use the remaining rocker switches to try the different pitches available to determine a pitch that suits your preference. You have a choice of eight pitches as follows:

- "1" on, "2" on, "3" on = highest pitch
- "1" on, "2" off, "3" on = next lower
- "1" off, "2" on, "3" on = next lower
- "1" off, "2" off, "3" on = next lower
- "1" off, "2" off, "3" off = midpoint of range
- "1" off, "2" on, "3" off = next lower
- "1" on, "2" off, "3" off = next lower
- "1" on, "2" on, "3" off = lowest pitch

The push button switch allows the whistle to be played in a manner similar to the way an actual whistle was blown by the engineer of the locomotive.

For your information, included are samples of some common railroad whistle signals.

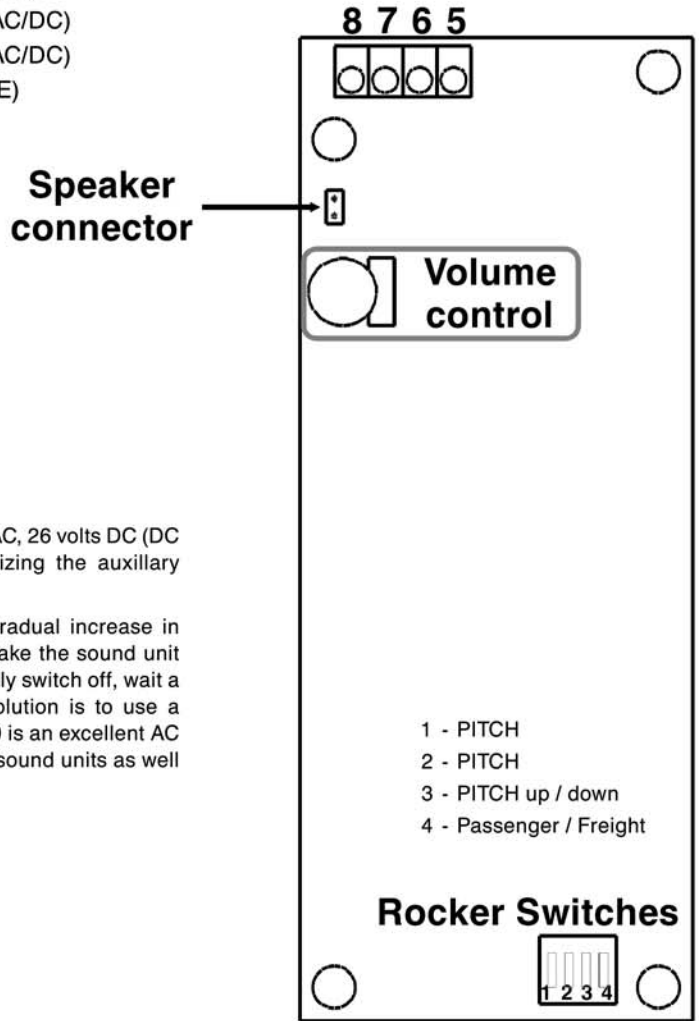
The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed.

| SOUND | INDICATION |
|---------------------|--|
| short | apply brakes, stop |
| 2–long | release brakes, proceed |
| long, 3–short | flagman protect rear of train |
| 4 or 5 long | recall flagman |
| 2–short | acknowledgement |
| 3–short | back up movement |
| 4–short | call for signals |
| short, long | inspect train line for leak or brakes sticking |
| 2–long, short | approaching meet or wait point |
| 2–long, short, long | approaching grade crossings |
| continuous long | approaching stations or junctions |
| sucessive shorts | alarm for something on track |

TERMINAL STRIP CONNECTIONS:

- 5 MANUAL SWITCH (COPPER WIRE)
- 6 INPUT POWER TERMINAL 1 (AC/DC)
- 7 INPUT POWER TERMINAL 2 (AC/DC)
- 8 MANUAL SWITCH (SILVER WIRE)

install wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position.



Maximum AC or DC input power is: 20 volts AC, 26 volts DC (DC input polarity is not important unless utilizing the auxillary amplifier as shown below).

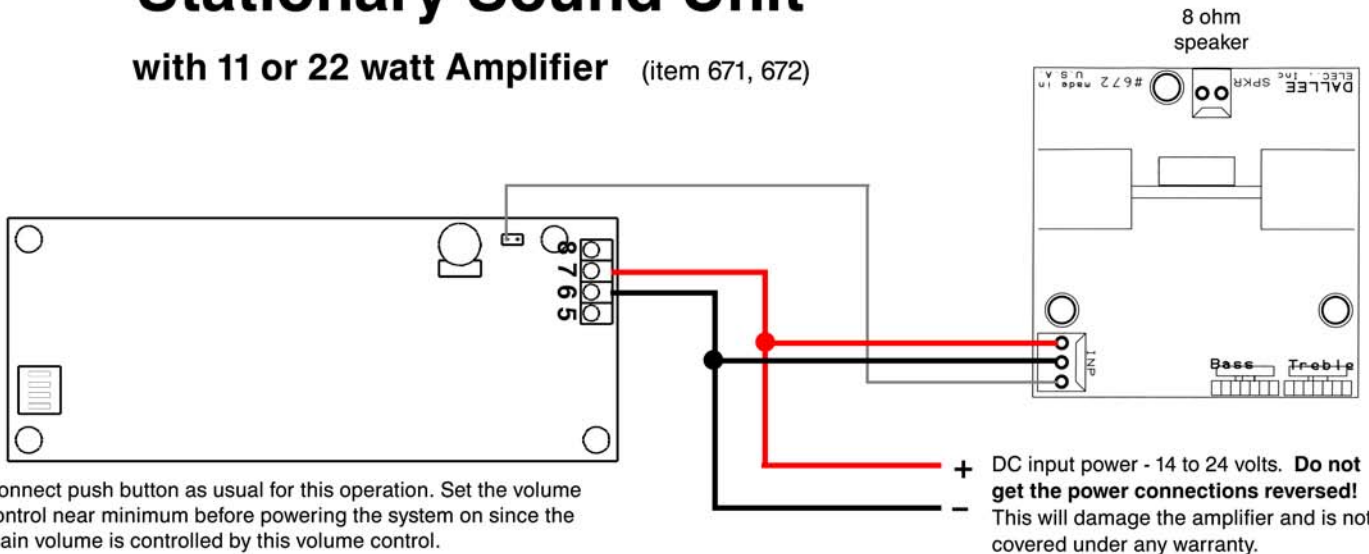
The input power must be switched on, a gradual increase in voltage or inadequate power source will make the sound unit appear to be inoperative. If this occurs simply switch off, wait a few seconds, and switch back on. The solution is to use a power source of adequate power. Item #690 is an excellent AC source to power this (and other) stationary sound units as well as other items.

- 1 - PITCH
- 2 - PITCH
- 3 - PITCH up / down
- 4 - Passenger / Freight

STEAM LOCOMOTIVE WHISTLE CONTROLLER
installation drawing - rev 2

Stationary Sound Unit

with 11 or 22 watt Amplifier (item 671, 672)



Connect push button as usual for this operation. Set the volume control near minimum before powering the system on since the main volume is controlled by this volume control.