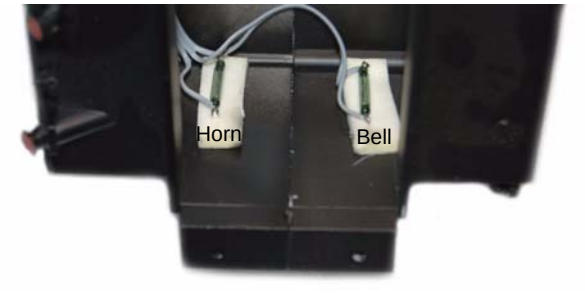
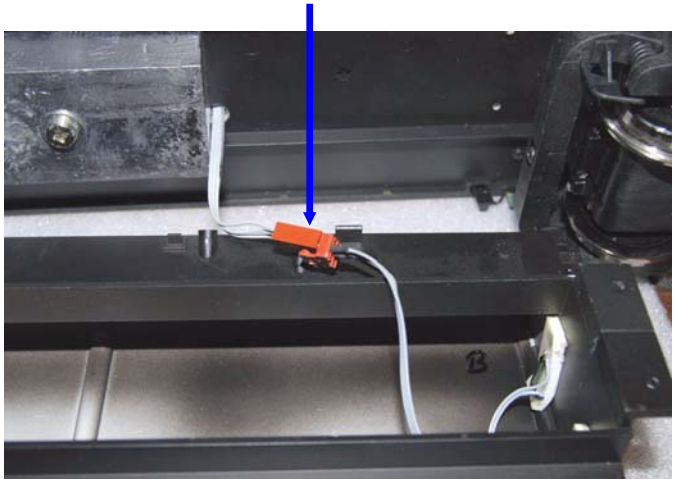
Installing a Dallee DCv3 auto-horn Sound System into an Aristo-Craft GE locomotive.

1 - Reed Switches - locate and prewire the reed switches as shown. Since they both connect to a common wire, only 3 wires are needed between them and the sound board.

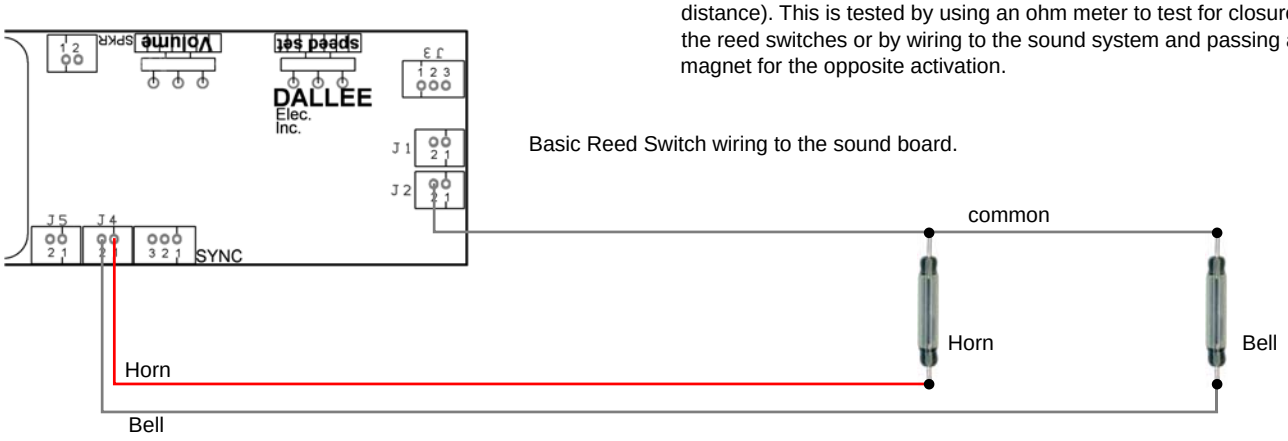
2 - Since one reed switch controls the Horn and the other controls the Bell, they need to be mounted on opposite sides of the chassis. These are shown below, attached with double sided tape (item 388), inside the fuel tanks end. To keep things consistent, we used the right side of the engine for Horn activation and the left for Bell. By wiring all engines the same way, it is easy to know which side activates which function.



3 - for ease of disassembly, a 3 pin connector, item 521, was used between the fuel tank and bottom chassis. A hole is needed in the chassis for these wires. Make sure it is deburred properly.

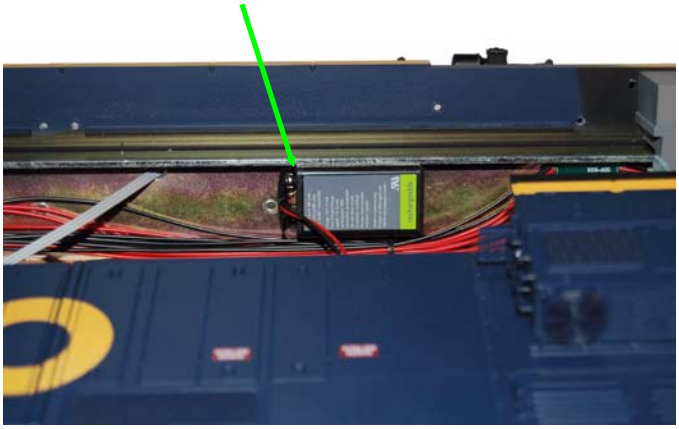


Note: You may want to test the activation distance for the reed switches before final assembly. Since not all reed switches are made alike, some will activate at a very low magnetic field strength and others at a higher strength. The higher strength isn't the problem as much as a lower strength. A lower strength reed switch might activate from a magnet located on the opposite side of the rail (from a far distance). This is tested by using an ohm meter to test for closure of the reed switches or by wiring to the sound system and passing a magnet for the opposite activation.

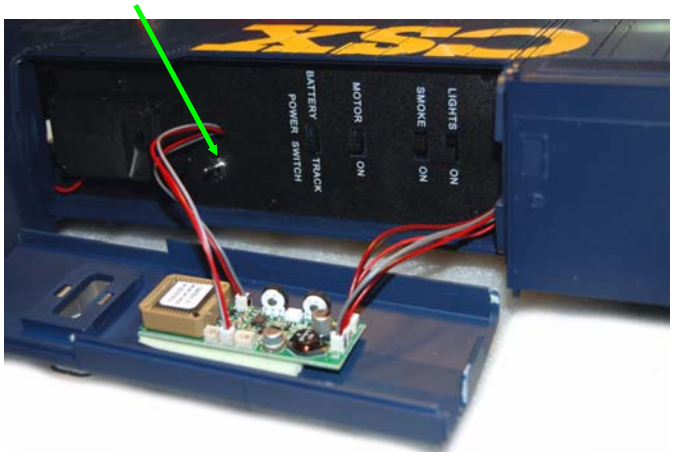


Basic Reed Switch wiring to the sound board.

4 - attach the track power wires and appropriate materials for the track power pickup (J1 and J2) as shown in the main instructions. An easy installation of the rechargeable 9v battery (item 647) with a 9v battery snap connector (item 578) is easily accomplished with double sided tape (item 388) as shown.



5 -A sound on/off switch (item 524) can be easily mounted by drilling a small hole in the shell as shown. Place it in the same direction as the other switches. This way the "ON" position will be easily known.

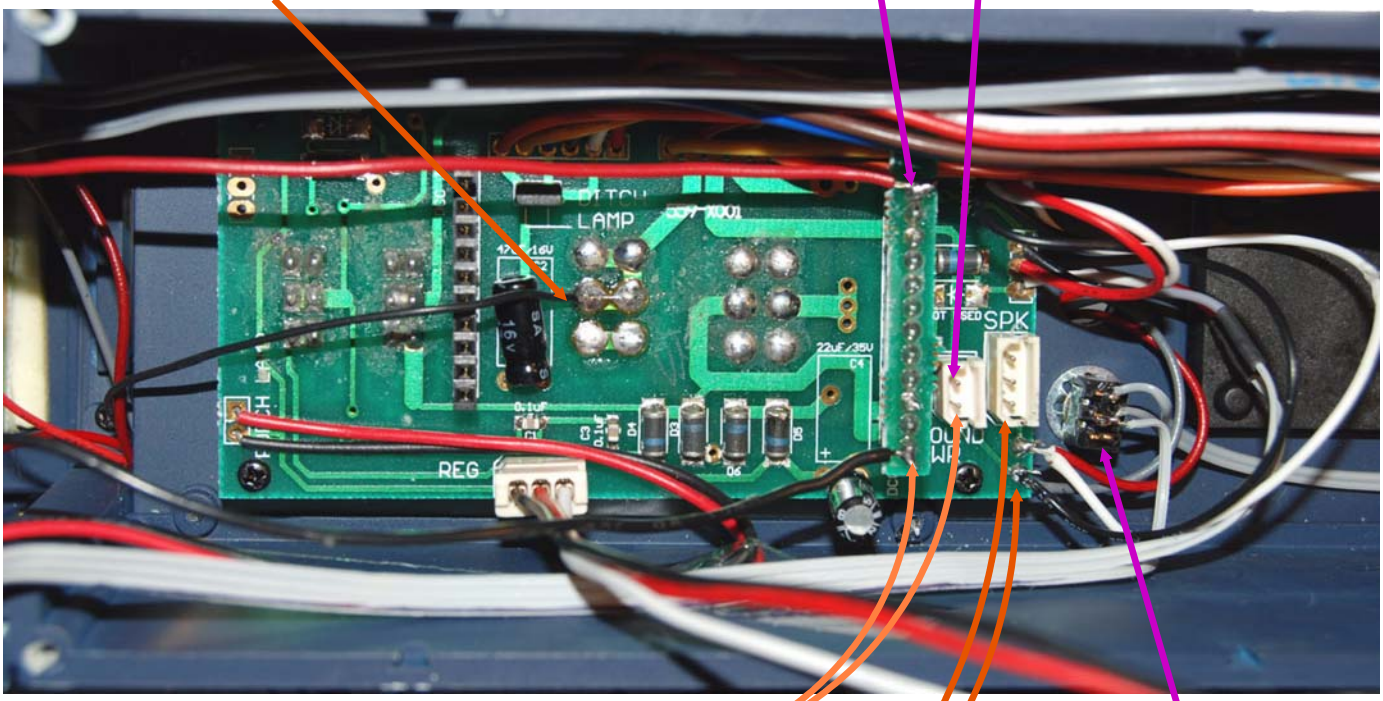


6 - as can be seen above, the sound board is easily mounted in the switch access roof panel. It not only clears all of the other switches when mounting this way, but access to the volume and notch setting controls are easily accomplished. As can be seen, all wires to the sound board pass through the existing openings.

7 - connecting J3, the motor input sense wires. In this application, we decided to utilize the motor switch that already exists instead of wiring the motor leads (white and black wires from J3) directly to the track power pickups. By wiring this way, when the motor switch is set to the "OFF" position, the sound systems prime mover will merely sit at idle when the track is powered instead of ramping up/down to the applied track power. This makes for a more realistic installation so that the engine can sit fully illuminated, or not, with the sounds running at idle. You can also leave track power on to fully charge the battery if necessary without running the locomotive. If you don't care to hear the sounds, merely turn the volume control fully CCW.

J3 pin 3, White wire connects to the other motor/track power lead which is the same as the red motor wire or Sound Power as shown. J1, pin 1, also connects to this point.

J3 pin 2, Black wire.



8 - Connect the other track power wire (shown as a black wire). As shown, this is the other track power wire. The sound unit's J1, pin 2 connects to this point or to the "SOUND PWR" connector.

backside of ON/Off switch, item 524

9 - either carefully solder speaker connector wires from the sound system's connector to the main pcbd or the existing speaker. Or utilize the "SPK" connector to connect the speaker wires.

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