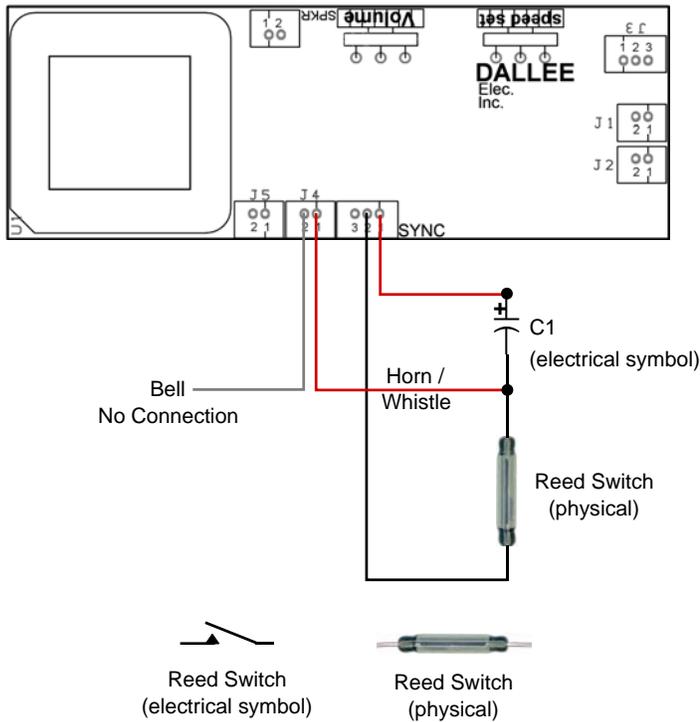


Using a standard DCv3 sound unit with Reed Switches for Horn/Whistle and Bell activation.

Method 1:

This method allows for the Horn/Whistle to be activated with minimal components and wiring.



All connections to the DCv3 board directed in the standard instructions remain the same and are therefore not shown, these are additional connections. If you need a copy of the standard instructions, please visit our web site.

C1 - Capacitor used to keep Horn/Whistle playing.

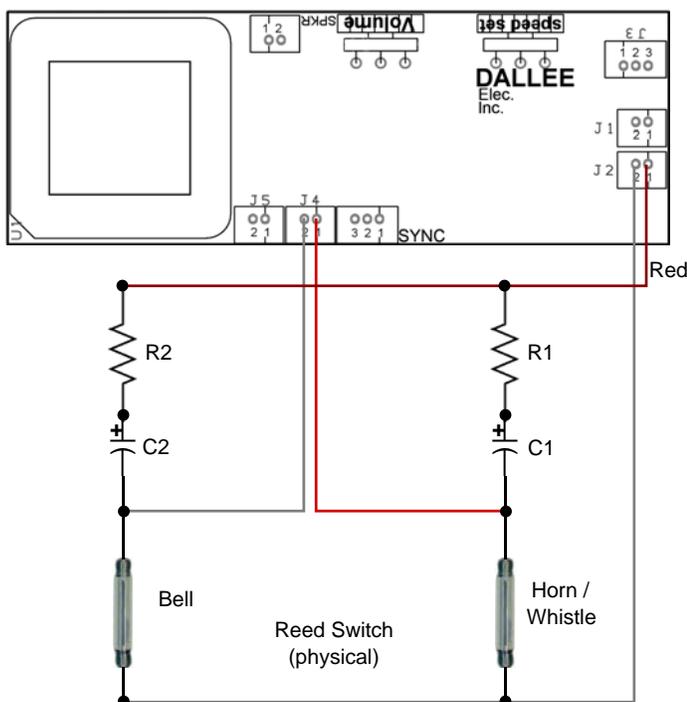
Since the standard DCv3 does not have Auto-Horn / Auto-Whistle operation, it's Horn / Whistle will only play when the input is pulled to a low (near ground) potential. This is accomplished by the reed switch connecting the capacitor and sound card input to the ground (Black) connection of the "SYNC" connection (which is the same as J2 "-", gray wire). The suggested value of C1 is 100mfd to 220mfd at 6.3 volts (a higher voltage rating is OK but not necessary). If you desire a longer activation/play time, increase the value of C1.

Reed switches are normally damaged by large instantaneous currents. Such as the current to charge C1. This is eliminated in this type of installation since a limiting resistor is already built into the DCv3 sound boards "SYNC" RED wire connection, so it's not necessary to connect an external limiting resistor.

If the "SYNC" input connections are already used for an external sync. Then merely connect these wires to the existing wires. If a 3 pin wire harness is required, they can be purchased from DALLEE (item 223 or 225).

Method 2:

This method allows for both the Horn/Whistle and Bell to be activated, but requires more components and wiring.



All previous connections to the DCv3 board directed in the standard instructions remain the same and are therefore not shown, these are in additional connections. If you need a copy of the standard instructions, please visit our web site.

C1 - Capacitor used to keep Horn/Whistle playing. See description above.

The main difference is that the "SYNC" Black wire is not used, the C1 voltage must be at least 25 volts, and an external resistor is required. The J2 Gray wire is used instead.

C2 - Capacitor used to keep Bell playing. This capacitor needs to be at least 470mfd or larger at 25 volts (higher voltages are OK). The Bell will only ring when the input is low. This low is provided by the Bell reed switch being activated when passing by a trackside magnet. Therefore, the capacitor (C2) must charge to maintain the low input. If you pass over the magnet too fast C2 may not charge sufficiently to allow the Bell to activate.

R1, R2 - These resistors provide the limiting current for the reed switches. It is suggested not to use less than 10 ohms (item 560) and not more than 390 ohms (item 535), 1/4 watt or higher wattage resistor. The lower the value, the faster the capacitor can charge when the reed switch is activated.