

MyLocoSound for a Bachmann Climax

by Del Tapparo

This is the new version Climax with DCC/Plug 'n Play electronics in bunker. It has a removable coal load, which has space for a MyLocoSound board and 9V rechargeable battery once the 4 plastic studs (with no apparent purpose) are removed. It has a built-in chuff circuit which we can use to synchronize the chuffs with the valve gear, and a factory speaker mounted below the factory circuit boards. All wiring connections can be done on the top board. Mounting reed switches for activating the bell and whistle via track magnets can also be done, but was not part of this project.

Coal Load Preparation

Use a rotary cutting tool to remove the 4 studs, making a flush surface.

Wiring

Wiring connections are made on the "Factory DC Jumper PCB", which has two rows of connections labeled J1 and J2. Wires are easily soldered to the PCB pads. Tin the pad to be connected with a bit of solder. Tin the end of your stranded 26 ga. wire. Solder the wire to the pad. Tin the other end of the wire for connection to MyLocoSound (MLS) screw terminals.

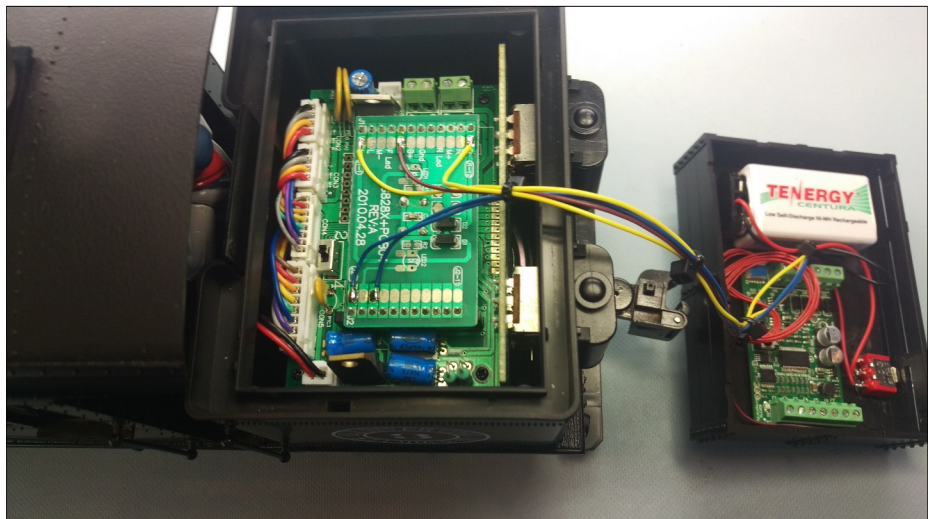
Component Installation

Mount the IR sensor on the rear of the removable coal load. Drill a 3/16" hole up as high as possible towards the coal, so it will be visible when the coal load is in position on the bunker. Mount the IR sensor on the inside using CA super glue, with the sensor pointing out the hole. Don't get any glue on the sensor lens.

Mount the battery on/off switch (SPDT) to the front of the removable coal load such that it is accessible from the left side (fireman's side) of the loco. Drill a 1/4" hole between the slats. Then mill out plastic for the body of the switch so it sits flush and can be



New Bachman Climax with removable coal load on top of the bunker. Inside of the bunker is filled with factory electronics and a speaker.



All components for the sound installation were put in the coal load and wiring was connected to the factory circuit board. The Climax manual explains the connection points and sound installation.

extended through the hole properly.

Secure the 9V battery to the inside of the bunker using double sided foam tape. With all wiring connected and the IR sensor cable plugged in test everything out to make sure it is working before securing the MLS board. Tidy up wiring as needed. After you verify all functions are working properly, secure the MLS board to the coal load with double sided foam tape. Place the coal load back on the bunker to check for proper fit.

Setup

Place the factory chuff switch on the bottom board to the 2 position. Use the IR remote to set Control Mode to 6-3 (Auto & Track Magnets). Press button 6 on the remote until you hear 3 beeps. Set Chuff Mode to 0-2 (Chuff sync switch input). Press button 0 on the remote until you hear 2 beeps.

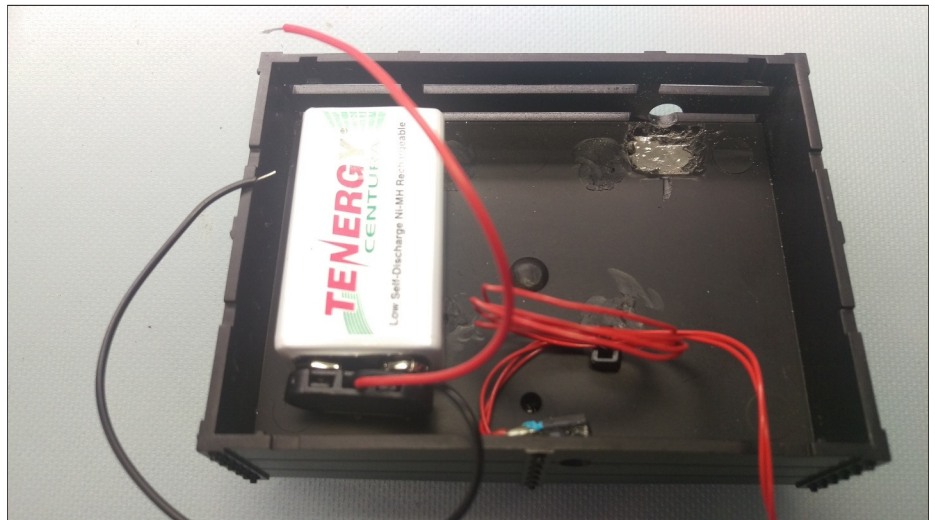
Operation

With this installation, sounds are triggered automatically when starting and stopping. Two toots forward, three toots in reverse, one for

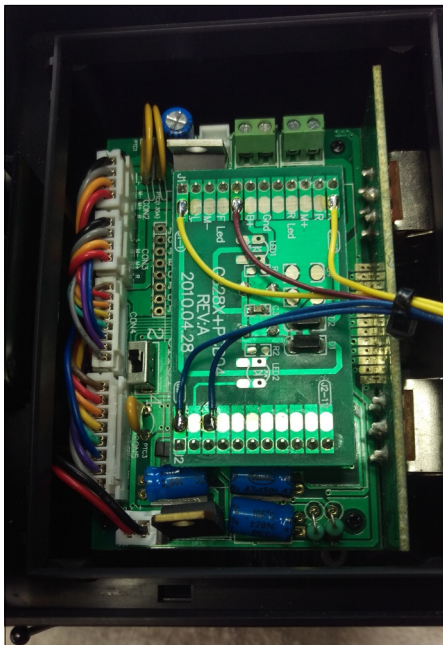
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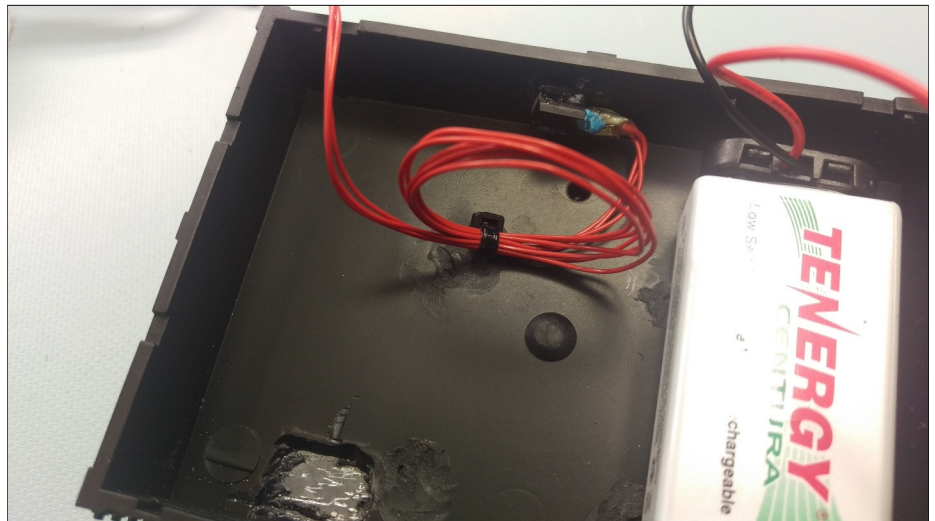
stopped. You also hear the brake pump in the background. Chuff is triggered by the factory chuff switch, which keeps chuffs in sync with the valve gear. Volume of each individual sound can be controlled via the IR remote. It can also be used at close range to trigger the bell, whistle, "All Aboard!", and steam blow down. The addition of reed switches would allow automatic triggering of the bell and whistle via track magnets.



Battery On/Off switch is mounted between slits. 1/4" hole, plus milled out area for switch body.



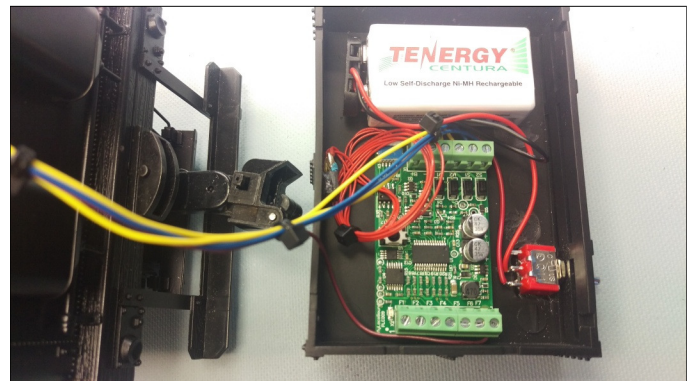
Make connections via tinned wire and solder pads. This top PCB can be removed from its socket, if needed, to separate the coal load electronics from the loco.



IR Sensor peeks out the back of the coal load. 3/16" hole and super glue.

Wiring Connections

- | | | |
|----------------|----|------------------------------|
| J1-1 (L) | to | MLS M2 (Motor/Track Input) |
| J1-12 (R) | to | MLS M1 (Motor/Track Input) |
| J1-5 (Chuff) | to | MLS F7 (Chuff Trigger Input) |
| J2-1 (Speaker) | to | MLS S1 (Speaker Output) |
| J2-3 (Speaker) | to | MLS S2 (Speaker Output) |
| 9V Battery + | to | MLS B+ (Battery Input +) |
| 9V Battery - | to | MLS B- (Battery Input -) |
- Remote IR cable plugs into MLS connector.



Wire length is long enough (9") for coal load to be removed and lay down behind loco.