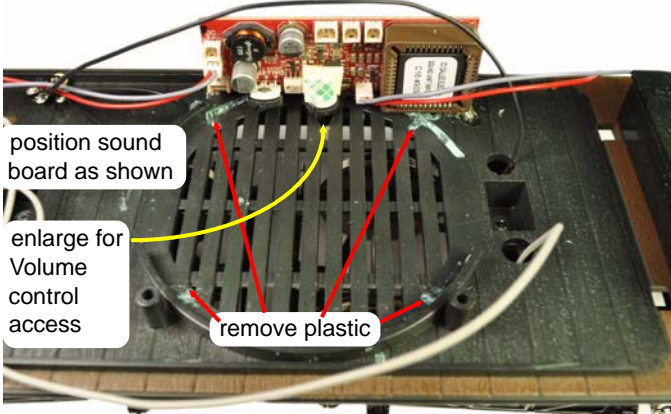


# DCv3 Sound installation in a Bachmann C16 / Mogul

This installation is for standard DC track power w/o a battery backup, which is an easy thing to add. This tender's top extends into the internal area, and we did not want to modify that, a special baffle needed to be fabricated for mounting a speaker with less height.

First step is to remove the tender shell. Next, the raised molded plastic needs to be removed and cut flush to allow the sound board to be mounted vertically. The sound card could have been mounted in the tender top but by mounting it in the bottom no wires need to pass between the two items. The lower existing slots were used to allow for the volume control to be accessed through the tender floor. The slot width was enlarged a bit to allow for easier access to the volume control as well. A stack of double sided tape was placed behind the volume control to prevent it from becoming bent back if extra pressure is used from the screwdriver when adjusting the volume. The Chuff Rate control was not given access to since it's not something that needs to be adjusted after it's set.

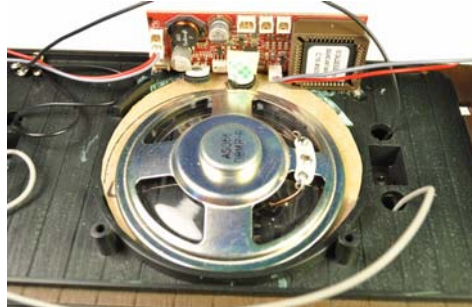
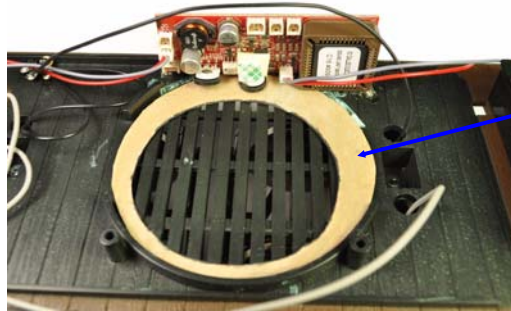


position sound board as shown

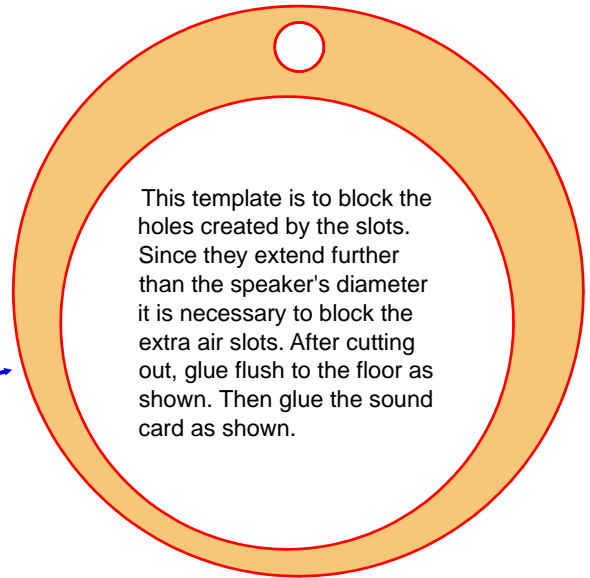
enlarge for Volume control access

remove plastic

Speaker templates: Glue templates to stiff, thick, card stock. Then cut it out on the red lines.



Position and glue front of speaker flush with no air gaps.



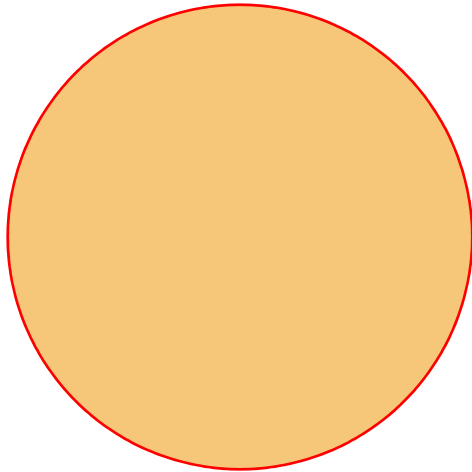
This template is to block the holes created by the slots. Since they extend further than the speaker's diameter it is necessary to block the extra air slots. After cutting out, glue flush to the floor as shown. Then glue the sound card as shown.

Outer wall of speaker baffle. Cut along red lines and roll into a cylinder. The left edge gets glued up to the blue line when forming the cylinder. Make sure it is perfectly square / flat on the top and bottom. You can test the diameter of your construction by placing it onto the speaker. After it's dried, glue against the speaker back side as shown. Again make sure this is air tight. We used "Quick Grip" glue for this which can be found at most craft shops. It sets up quickly while still allowing for manipulation of the materials if needed.

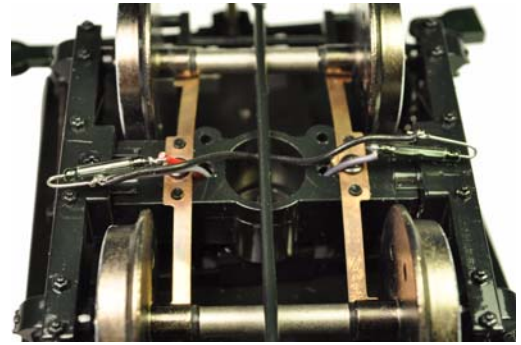


Position and glue speaker sides flush to the front with no air gaps as pictured.

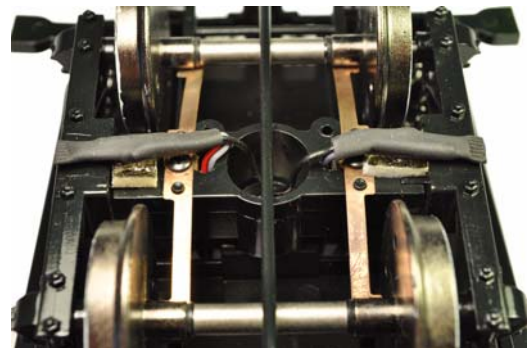
Top of speaker enclosure. Cut out along the red line and glue in place as shown leaving a small notch to allow for the speaker wires to exit.



Lastly, prepare and mount the two reed switches.  
Red - Whistle (J4-1), Gray - Bell (J4-2), Black goes to J2 gray.

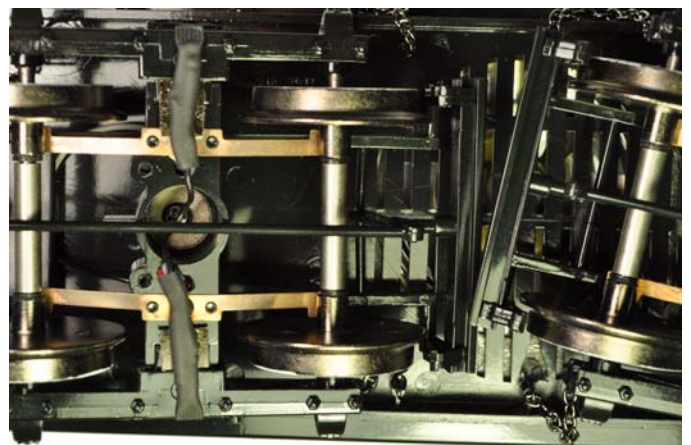
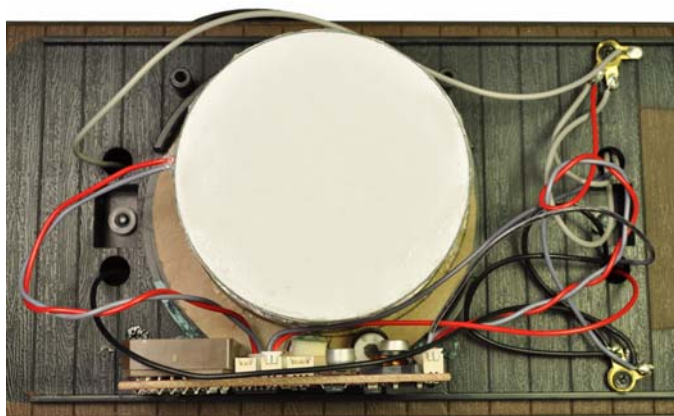


Slide heat shrink tubing over the reed switches and crimp the ends while hot (careful not to crush the reed switch). Place in position with glue or 1/8" double sided tape as shown (item 388).



Position and glue speaker sides flush to the front with no air gaps as pictured.

Bottom view of tender showing Volume control and Reed Switches.



Top view showing everything connected. Better operation would be obtained by adding the rechargeable battery option, item 996. There is plenty of room to place it as well.