

“Supercharge” Your Lionel Dodge Ram Inspection Vehicle

Article and Photos by Stanley Gitler

I recently purchased a Lionel No. 18438 PRR Dodge Ram Inspection Vehicle. This car was manufactured in 1998 and later years and was offered in several road names including Pennsylvania, Union Pacific, New York Central, and Norfolk Southern. The car is equipped with operating headlights and includes an electronic reverse unit.

Since I operate with Lionel's TrainMaster Command Control (TMCC), I decided to upgrade my car. When I contacted The Electric Railroad Company (www.electricrr.com), I was advised that their Beep Commander would fit this vehicle.

After receiving the kit and completing the installation, I found that the car would stall on switch tracks due to the slider shoes that



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Parts Needed (Photo 2)

- Lionel Dodge Ram Inspection Vehicle (or similar)
- The Electric RR Company's Beep Commander Kit
- 2 ea. K-Line #K4500 pickup roller assemblies (purchased from Brasseur Electric Trains at www.traindoctor.com)
- Flex wire
- Loctite Super Glue Control Gel
- Scrap plastic for attaching pickup roller assemblies

Tools Required

- Jeweler's screwdriver to attach wires to the Beep Commander
- Razor saw to trim plastic strip to hold pickup roller assemblies
- Soldering gun and solder
- Hot glue gun to attach antenna wire to roof of car



are used for electrical pickup. After a bit of time and some trial-and-error experimenting, I eventually located a pair of K-Line pickup roller assemblies that would fit this car. With a plastic shim for each, I glued the roller assemblies to the bottom of the underside frame of the car. In addition, I added center-rail pickups by soldering wires to the lead and trailing trucks. The result is a fun little vehicle controlled by TMCC that can now go anywhere on the layout (Photo 1).

This is the underside of the Dodge Ram Inspection Vehicle as manufactured. Note the center-rail pickup and the outside-rail pickup (Photo 3).

Step 1:

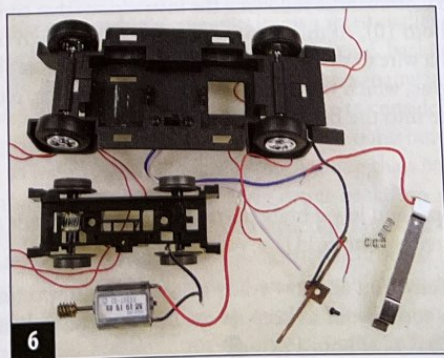
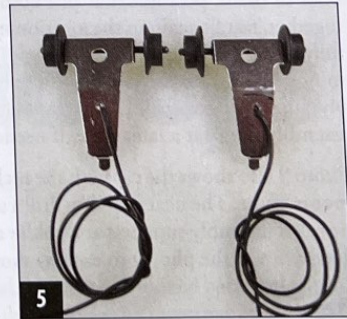
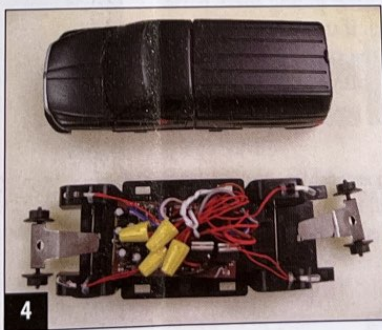
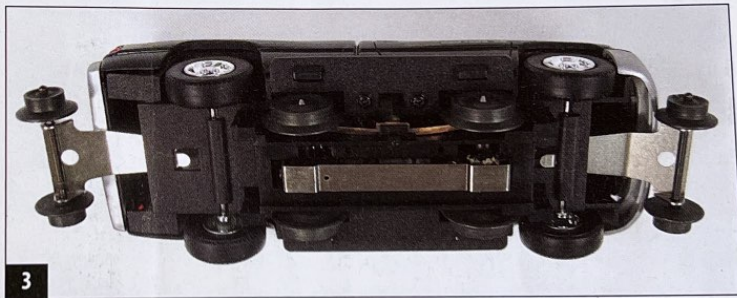
Carefully separate the car top from the body by depressing the two snaps located on either side of the car and remove the electronic reverse unit and double-faced foam tape from the frame (Photo 4).

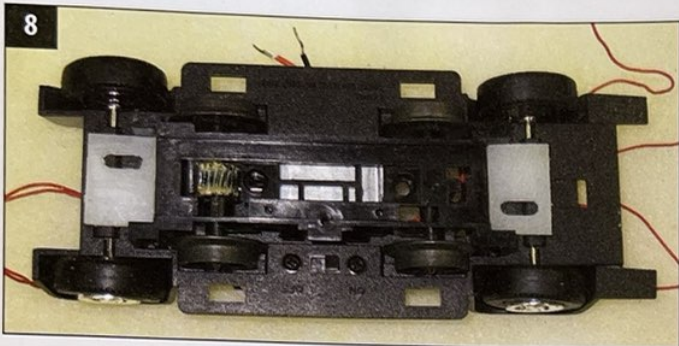
Step 2:

To improve outside rail power, solder flex wire to each of the front and trailing trucks. I drilled a small hole in each and soldered them from the underside (Photo 5).

Step 3:

Carefully separate the motorized truck from the lower frame by depressing the four tabs. Then remove the motor. Remove the center-rail slider as well as the center-rail pickup shoe (Photo 6).





Step 4:

Reassemble the motor into the lower frame and then the lower frame into the lower body section (Photo 7).

Step 5:

From a scrap piece of plastic (I used a spacer that came from an old screen door handle), measure, cut, and test fit the two pieces as shown in Photo 8. Do not glue yet.

Step 6:

Remove the plastic pieces test fit above and glue the roller assemblies to them, positioned as in Photo 9. After gluing these parts together, test fit again in the location noted. If the fit is good, carefully apply some super glue (gel type) to the contact points so as to not get glue on the lower body frame—only the motor assembly frame—if possible. Doing so will allow removal of the motor assembly frame at a later time, if needed.

Photo 9 also shows the car with the pickup assemblies glued to the motor frame. The next step is to drill a small hole through the plastic roller assembly supports and solder a piece of flex wire (the two dark wires in the photo) to each as shown.

Step 7:

Install the Beep Commander following the instructions that come with the kit (Photo 10). At this point, you will need to attach the supplied antenna wire to the roof of the upper body section of the car. I used hot glue, which worked well. Before reassembling, plug the antenna wire into the Beep Commander board.

Step 8:

Reattach the upper and lower body portions, being careful not to bind any of the wires (Photo 11).

Congratulations! You are now ready to send your inspection car anywhere on your layout to keep an eye on your railroad and control it with TMCC (Photo 12). 