Here is the stock, DCC-Ready S-12. It has an 8-pin decoder receptacle, but no room for a speaker or capacitor if we keep the factory PCB. The bronze tabs sticking off the front of the PCB contact a fitting for the front LED headlight.

The owner of this locomotive didn’t like the color of the factory LEDs, which are yellow. I simply installed a clear, warm white LED in the cab, bending the leads similar to the factory LED, and soldered a resistor to the cathode. The resistor lead and blue anode wire pull through to the hood.

I then removed the LED housing from the front and installed another clear, warm white LED into the headlight hole. I nipped the two housing mounting nubs flush so that it wouldn’t interfere with the speaker enclosure.

The Loksound Select Micro decoder was installed. Here is the Scale Sound Systems speaker system ready to install. It fits snugly down into the frame hovering over the front truck tower.

Here’s the finished install. Both pairs of headlight wires are equipped with Pin & Socket Micro Connectors so that the shell can be fully freed from the mechanism. A 16V, 2200uF capacitor sits down into the frame just behind the motor and in front of the cab interior. It is also equipped with a single Pin & Socket Micro Connector so the capacitor can be bypassed for any future Lokprogrammer programming.

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