
DCC CORNER

"INSTALL A DCC QUICK PLUG DECODER"

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Install a DCC Quick Plug Decoder

For a lot of people DCC is very scary and for some it isn't too bad and for people like me it is actually very fun. In this article I will show you how to install a DCC decoder into a DCC ready locomotive. Although this may seem very easy and straight forward, there may be a few things that you will find might help make the install that much quicker.

For this article I will be installing a Digitrax DH163D Decoder into a HO Scale Intermountain Railways F-7 B locomotive. While this is very straightforward I will discuss what the decoder id means. For Digitrax brand decoders, they all have a special series of numbers and letter to distinguish what the decoder will do. For this install I am using a Digitrax brand (D) HO Scale (H) 1amp continuous (1) Six Function (6) Series Three (3) Decoder. What does all that mean? Well I will try to explain that in a different article a little later. So for now if you are in need of a decoder go to your hobby shop and ask for assistance if you unsure which decoder to get. Most of the DCC Manufacturers make a variety of decoders for many applications. So it is best if you research a little before just going and buying one to make sure you get the right decoder for your locomotive and will work how you want.

Now on to the installation:

Follow along as I explain step by step with pictures on how I install the decoder:

Step 1:



This picture is of the locomotive circuit board before any modifications or installations are done. Since this is a DCC ready locomotive, notice the rectangular plug to the far right of the circuit board. This is where the 8-pin Decoder plug will plug in.

Step 2:



A picture of the decoder, NMRA 9-pin to 8-pin plug and instructions

Step 3:



A little prep work needs to be done before the decoder is installed. On this particular plug, it has 2 extra wires for the 2 extra functions. Since this is a B unit, I will not be putting any extra lighting on at this time. I may want to in the future so that is why I am not clipping these wires off. I just use a little industrial strength electrical tape to cover the ends so they do not short out. With most decoders, thanks to the NMRA, the wire colors that I taped up were Green and Purple as they are designated the extra function colors.

Step 4:



Carefully I remove the jumper plug from the circuit board. This is not surgery here but you do need to make sure you do not scratch the board or mess up the holes. It is a good idea to keep this plug so if you ever want to sell your locomotive, you can take the decoder out and put it in to a different locomotive.

Step 5:



Here is the decoder plug pushed into the circuit board. Take note to where hole # 1 is on the set of eight. Most DCC ready locomotives have an arrow or some sort of mark to make it easy to spot. The #1 pinhole is where you will want your orange wire to go. This should be the same on most locomotives. Although there will be those locos that are a little different but because of standards, most new production locos have the same wiring set up.

Step 6:



The next step, you have to plug the decoder into the harness and find a spot in the locomotive that it will not interfere with the motor, drive line, and such. Plus you have to make sure that the decoder does get adequate ventilation. The decoders do not get real hot, but they will produce a little bit of heat so it is best that you do not cover the entire decoder up. Here you see that I have it taped down towards the back of the locomotive. Once again I am using industrial strength electrical tape. I have placed the decoder where you see it as the side of this locomotive has see through side vents and I did not want the decoder showing through.

Step 7:



As you can see on the throttles display screen, I am programming the address of this locomotive to a two digit address. The road number for this loco is #127. There is no particular reason why I do this other than personal preference. I will program the address, and then test to make sure the decoder took the address. Then once that is completed I do any other programming that I need to do at this time.

Here is a picture of the locomotive that I just put the decoder in.



So as you can see that it wasn't that difficult to install. Sometimes, it is harder to find the space for the decoder than it is to wire one up. These techniques here will work on most DCC ready locomotives. Be sure to check the locomotive's spec sheets before proceeding to make sure there isn't anything special that needs to be done before installing a decoder.

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