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DIGITAL COMMAND CONTROL THE WAVE OF THE FUTURE

## DH140P

### 1 Amp Digital Command Control Decoder With NMRA Plug

1.0 Amp (1.5 Amp Peak) Mobile DCC Decoder

Easy connect decoder wire harness with NMRA Plug

Supports Both Short (127) & Long (10,000) Address Modes

User Programmable Address, Acceleration, Deceleration, Start-voltage & Mid-point voltage and more

Programmable from DCC compatible equipment without opening the loco

Smooth conversion to analog operation with functions operational

4 User Configurable, Independent Function Leads Rated at 200ma  
 Use These as Regular Function Leads or Generate Special Lighting Effects  
 Choose from Mars, Gyalite, Single or Double Strobe, Ditch Lights and more

Smooth locomotive speed control with user selectable  
 14, 28, or 128 forward & reverse speed step capabilities

User loadable speed tables for customized speed control  
 with 128 speed step resolution

Supports Basic, Advanced & UniVersal Consisting

User configurable loco direction of travel, you decide  
 which way is forward without rewiring the motor

Run AC motors (like Marklin 3 pole AC motors) on DCC with split field AC drive

Automatic thermal overload shutdown & improved motor short circuit protection

Compatible with the NMRA DCC Standard

Complies with FCC Part 15, class B RFI requirements

Made  
in  
USA



## Digitrax DH140P Decoder Installation Wiring Diagram

The DH140P is the same as a regular DH140 decoder except that it has the NMRA Standard Plug for HO Locomotives Pre Installed.

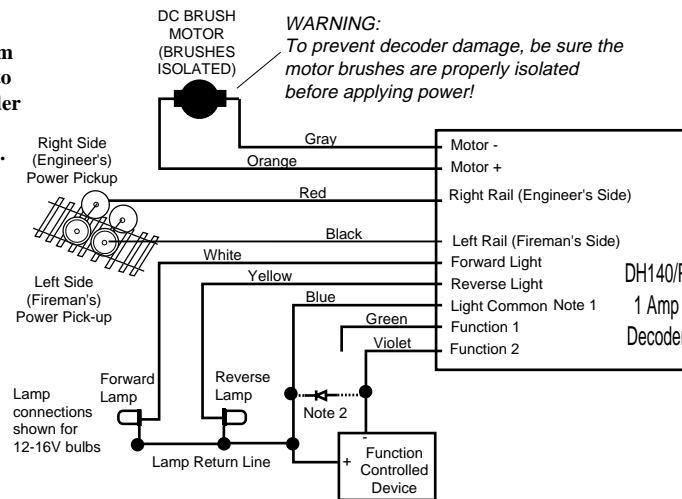
See Digitrax Decoder Users Manual for complete decoder test procedures, installation instructions & technical information. This manual is available at no charge from your dealer. If your dealer is out of these manuals, call Digitrax at (770) 441-7992 and we will gladly send you a copy.

To install the decoder with the NMRA Plug, simply remove the "Dummy Plug" from the circuit board in the Locomotive and replace it with the NMRA Plug equipped decoder.

If you are installing the decoder in an Atlas U33/36C with any of the following Road Names/Numbers, please consult the Atlas Decoder Advisory that came with your locomotive prior to installation. Santa FE 8706, 8755, & 8788. Delaware & Hudson 754, 760, 762. Erie Lackawanna 3316, 3321, 3324. Illinois Central 5056, 5058, 5059. Milwaukee Road 5700, 5702, 5703. Unless the circuit board inside the engine is replaced, you will need to remove the green wire from the NMRA plug prior to installation.

To wire the F2 Violet lead follow the diagram below. Also, if you have disconnected the Green F1 lead from the NMRA plug, you can follow these directions to hook up function 1 as well.

**NOTE:**  
 This Diagram Shows how to wire a decoder without the NMRA Plug.



Notes:

1. Light Common is the positive lead for "full wave" function power operation. Do not exceed the 200ma rating of the function outputs. If Light Common is not used, power the lamp or function from either track power pick-up for "half-wave" operation by connecting the Lamp Return Line to either track pickup.
2. If you use an inductive(coil) type load, you should place an inductive kick-back suppression diode across the coil with the cathode(banded) end connected to the Light Common side. A small signal diode such as IN4148 or rectifier such as IN4001 is ideal. Be careful because an incorrectly connected diode can damage the function output.
3. See the Digitrax Decoder Users Manual for full details of wiring 12-16V lamps, 1.5V lamps, & LED's for full and half wave operation. Lamps that draw more than 80ma when running require a 22 ohm 1/4 watt resistor in series with the directional light function lead to protect the decoder.

Damaged decoders should be returned directly to Digitrax for repair.

The standard repair charge is \$17.