



## DH127PS

Fits many 8-pin Medium Socket  
DCC-Ready HO locomotives

### HO Scale

Mobile Decoder  
Digitrax 9-Pin Socket and PS-Harness  
1.0 Amp/2 Amps Peak  
2 FX<sup>7</sup> Functions, 200ma Output

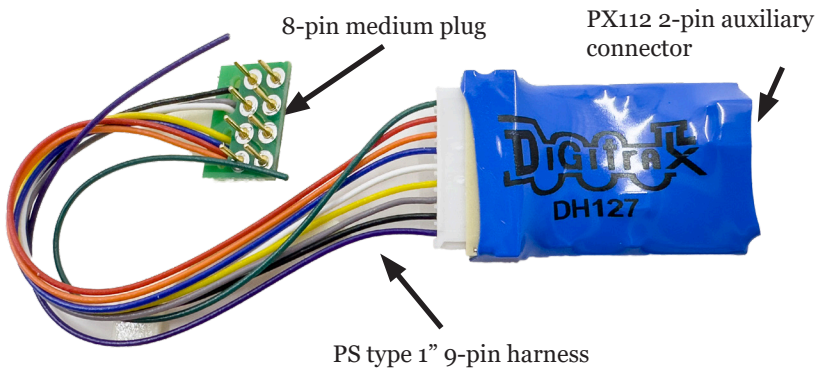
### Features:

- Digitrax Easy Connect 9-Pin Socket for track, motor and function control, allows decoder to be moved between different locomotive interfaces.
- Digitrax Easy Connect 9 Pin to 1" locomotive DCC Medium-Plug harness
- Series 7 Enhanced Decoder Features.
- Firmware may be user updated using a Digitrax USB equipped Command Station with Sound Loader software in decoder IPL mode.
- 2 Digitrax FX<sup>7</sup> Functions—Control lights and functions for prototypical lighting effects and on/off control.
- Configurable FX<sup>7</sup> Pulse Function available on all function outputs.
- Digitrax LocoMotion<sup>®</sup> System – Lets your trains run like the real thing!
- 2 Digit and 4 Digit Addressing.
- Basic, Advanced & UniVersal Consisting.
- SuperSonic motor drive for silent operation.
- Direct and Operations Mode programming.
- Program CVs using any Digitrax Compatible Control system without having to buy any extra equipment. Decoder Reset by CV8, with or without speed table reset.
- Transponder Equipped ready for transponding ID and Operations Mode CV read-back when your layout is instrumented for Digitrax Transponding.
- Power-on Motor Isolation Protection, helps prevent damage to your decoder.
- DCC Compatible.
- FCC Part 15, Class B RFI compliant.
- Operates on DCC track voltage 9V minimum. to 22V maximum.

### Parts List:

1 DH127D compact HO Mobile Decoder with 9-pin socket  
1 Instruction Sheet  
1 PS-type 9-pin to 8-pin Medium-plug 1" harness

**Installation Instructions:** Visit [www.digitrax.com](http://www.digitrax.com) for the latest information and technical updates. Refer to Figure 1 for the decoder layout.



**Figure 1: DH127P Decoder** showing Track/Motor, Function wires, 2-pin connector for optional PX112.

To install, follow these steps:

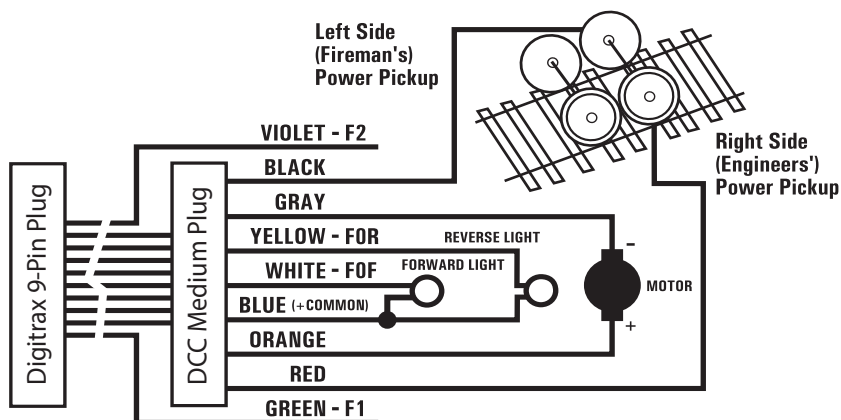
1. Remove the factory analog plug or connection pins to free up the 8-pin Medium socket on the Locomotive PCB. Ensure the 9-pin harness is plugged into the DH127PS socket.
2. Plug in the harness 8-pin Medium plug into the locomotive medium socket. Pin1 on the plug is the orange wire and the pin1 location of the locomotive socket is typically marked. Refer to figure 2 for decoder connections. If the 8-pin plug is rotated 180 degrees the pin1 orange wire will be replaced by the gray wire on the locomotive pin1 position. This will reverse the motor direction for DCC forward. This allows e.g. a normal short-hood forward to be changed to long hood forward, etc.
3. Connect the function F1/F2 wires if they are used for e.g. extra lights. Insulate any unused wires so they cannot short to the locomotive frame or track power. Be sure to use current setting resistors with LED lamps. Refer to locomotive documentation for any lamp requirements.
4. The 2-pin auxiliary connector allows optional connection of e.g. a PX112 power extender. The PX112 pin1 is the negative/black wire, pin2 is positive/red wire.
5. We recommend testing the installed decoder and locomotive on a programming track with limited current in case of any problems.

### Customizing Your Decoder:

This decoder will initially operate at factory default address 03. For customizing, the following CV table gives the common CVs used by this decoder. Reading CV8 on a programming track, or Digitrax Mainline Operations mode will return CV8 = 129, confirming the decoder is functional. Set the decoder address you plan to use. See the Digitrax web site for more information on programming CVs.

CV#	Control Usage	Range	Default
1	2 Digit Address	1-127	03
2	Vstart	0-255	0
3	Acceleration Rate	0-32	0
4	Deceleration Rate	0-32	0
5	Vhigh	0-255	255
6	Vmid	0-255	128
7	Product ID- Series7 standard mobile decoder		204
8	Manufacturer ID- Digitrax		129
9	Motor Drive frequency in KHz	4-50	0->16
10	Motor feedback voltage trim	32-127	0->64
11	Packet timeout, in seconds. 0= Off	0-60	6
17/18	4 Digit Address		0000
19	Consist 2 digit Address	1-127	0
29	Decoder Primary Configuration		6
33-46	Function to Output Lead mapping		
49	FX setting White/FoF lead	0-255	0
50	FX setting Yellow/FoR lead	0-255	0
65	Kick Start	0-255	0
66	Forward Trim	0-255	127
67-94	Speed Table	0-255	
95	Reverse Trim	0-255	127
120	Decoder type- HO 9-pin		33
253	IPL download version		>= 5

**Figure 2:** DH127PS: connection diagram



## Warranty & Repair

Digitrax gives a one year *Warranty* against manufacturing defects for this product. Visit [www.digitrax.com](http://www.digitrax.com) for instructions for tech support and returning items for repair.

**Please return warranty items directly to Digitrax - DO NOT** return items to place of purchase. errors and omissions excepted.



Made in the USA



2443 Transmitter Road  
Panama City, FL 32404

[www.digitrax.com](http://www.digitrax.com)

**Need Support?**

[helpdesk.digitrax.com](mailto:helpdesk.digitrax.com)

DH127PS



6 52667 06044 8

307-DH127PS-0000