Digitrax

Complete Train Control
Run Your Trains, Not Your Track!

DH187MT

Fits many 21MT equipped HO locomotives

HO Scale
Mobile Decoder
Digitrax 21-pin MT socket
1.0 Amp/2 Amps Peak
8 FX$_7$ Functions, 300ma Output

Features:

- 21-pin socket allows decoder to be easily moved between different locomotives.

- Series 7 Enhanced Decoder Features.

- XF expanded function capability, allows user remap of function keys F0-28 to function output leads.

- Firmware may be user updated using a Digitrax USB equipped Command Station with Sound Loader software in decoder IPL mode.

- 8 Digitrax FX$_7$ Functions-Control lights and functions for prototypical lighting effects and on/off control.

- Configurable FX$_7$ Pulse Function available on all function outputs.

- Digitrax LocoMotion® 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 on your layout.

- 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 DH187MT Mobile Decoder
1 Instruction Sheet

Installation Instructions: Visit www.digitrax.com for the latest information and technical updates. Refer to Figure 1 for the decoder layout.

2-pin socket for power extender

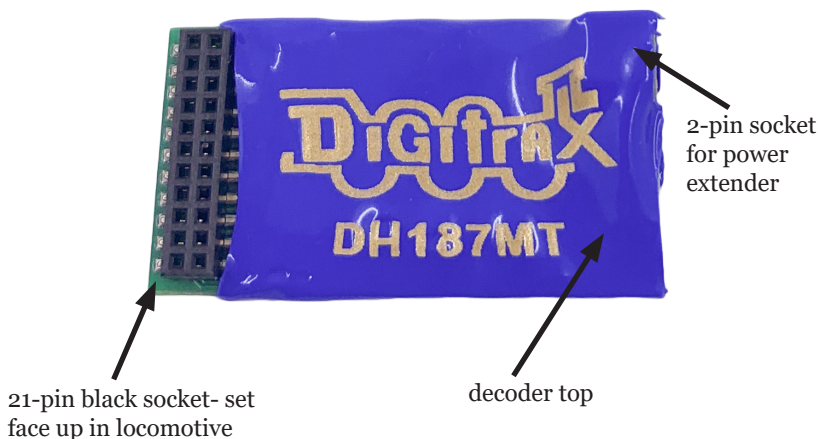21-pin black socket- set face up in locomotive

decoder top

Figure 1: DH187MT Decoder showing 21-pin Track/Motor, Function connector.

To install, follow these steps:
1. Remove locomotive shell from locomotive with a 21MT style lamp board.
2. Remove the factory 21pin analog jumper board from the lamp board.
3. Plug the DH187MT decoder with the lamp board pins entering from the **underside of the decoder shown in figure 1**. There is an index pin that forces the correct left/right socket orientation. Correct install will have decoder black socket visible on topside. Do not plug in upside down, or non-warranty damage may occur,
4. Place the loco on an active DCC test track powered by a compatible DCC system and select the factory default address 03 to test functions/lights and motor work OK.
5. Replace the locomotive shell.

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.

See the Digitrax web site for more information on programming Series 7

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/F0F lead	0-255	0
50	FX setting Yellow/F0R lead	0-255	0
51	FX setting Green/F1 lead	0-255	0
52	FX setting Violet/F2 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
113	FX setting F3 lead	0-255	0
114	FX setting F4 lead	0-255	0
115	FX setting F5 lead	0-255	0
116	FX setting F6 lead	0-255	0
120	Decoder type- HO 21pin MT		34
253	IPL download version		>5

Warranty & Repair

Digitrax gives a one year *Warranty* against manufacturing defects for this product. Visit 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.