



DH187Ao

Fits Kato, Athearn Genesis, Stewart, other HO locomotives

HO Scale

Mobile Decoder
Drop-in light board replacement
1.0 Amp/2 Amps Peak
8 FX⁷ Functions, 300ma Output

Features:

- Drop-in Ao light board replacement .
- 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.
- 8 Digitrax FX⁷ Functions—Control lights and functions for prototypical lighting effects and on/off control.
- Configurable FX⁷ 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 DH187Ao Mobile Decoder

1 Compact Instruction Sheet

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

1. Carefully remove the Locomotive shell.
2. Detach the motor and track feed wires from the light board. Remove the factory Light board. Many compatible locomotives employ small plastic retainer clips to hold wires in place. Do not discard, as they will be used for this installation.
3. Mount the decoder on top of the motor bracket with connection text visible.
4. Attach the track power wires from the trucks at both ends of the decoder, connect the two motor leads, and light wires, using the small retainer clips to hold securely in place. Make sure not to short any parts of the wires outside of the allocated connection pads/holes.
5. Attach desired lighting function leads to pads indicated in Fig. 1
6. Place the loco on an active DCC test track powered by a compatible DCC system and select the factory default address 03 to enable for testing.
7. Once the motor and lights function OK, replace the locomotive shell, taking care to dress any wires so they are not damaged.

Function lead voltages:

The SDH187Ko decoder has the positive function power return or +FN pads configured for lower voltage white leds at ~8mA, or 20mA micro-bulbs, and each function line does not require additional current setting resistors. Decoder connection pads are shown in Figure 1. Be careful when soldering to these pads to avoid any damage to pads or adjacent circuitry.

Functions 1 to 6 are available at the marked pads, and any of the +FN pads may be used to support leds driven by these functions.

To use 12V lights; you can return these lights/function circuits to the marked BLU [+12V] pad instead of the +FN lower voltage used for leds.

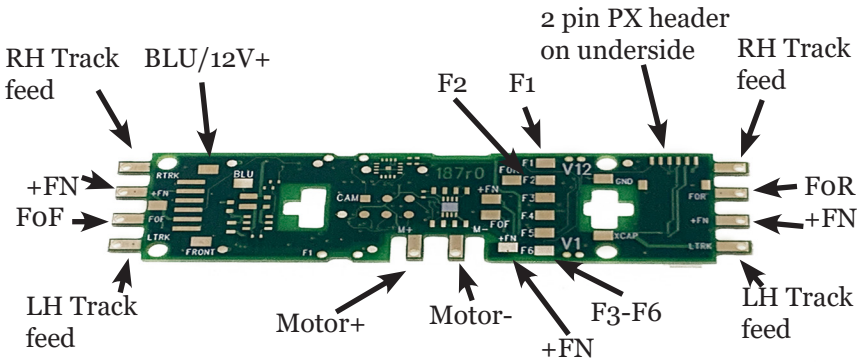
Customizing Your Decoder:

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 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
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 9-pin Ao light board style		35
253	IPL download version		>4

Figure 1: DH187A0:top side connection diagram



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.



Made in the USA



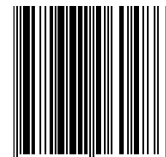
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Need Support?

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