

DCC DECODER INFORMATION FOR INTERMOUNTAIN LOCOMOTIVES

While InterMountain does not produce DCC decoders, decoders for InterMountain locomotives are available from top DCC manufacturers such as ESU LokSound, SoundTraxx, QSI, Digitrax, North Coast Engineering (NCE), Train Control Systems (TCS), Lenz and others.

N Scale Non-Sound Decoder Information:

The following table contains information for board replacement decoders for IMRC N scale locomotives:

IMRC N Scale Locomotive	Digitrax	North Coast Engineering (NCE)	Train Control Systems (TCS)
EMD FT-A	DN166I1A ¹	NIMFTA ¹	IMFTA4 ³
EMD FT-B	DN166I1B ¹	NIMFTB ¹	IMFTB4 ³
EMD F3 A&B, F7 A&B, F9B	DN166I1C ¹ / DN166I1D ²	No Board Replacement	IMF4 ³
EMD FP7A, FP9A	DN166I2 ¹ / DN166I2B ²	No Board Replacement	IMFP4 ³
EMD SD40T-2, SD45T-2	DN166I0	N12A0e	IMD4
EMD SD45-2, SD40-2W ⁴	DN166I0	No Board Replacement	IMD4 / IMD4-W ⁴
Cab Forward AC-8, AC-10, AC-11, AC-12	Any wired 8-pin medium plug style	Any wired 8-pin medium plug style	Any wired 8-pin medium plug style
More Information:	http://www.digitrax.com	http://www.ncedcc.com	http://www.tcsdcc.com

These decoders are available (or can be ordered) from hobby dealers that stock DCC products.

¹The Digitrax DN166I1A / DN166I1B / DN166I1C / DN166I2 have motor contact “shoes” for units **produced prior to January 2014**. The NCE NIMFTA / NIMFTB decoders have been retired by NCE.

² The Digitrax DN166I1D / DN166I2B are for N scale F units **produced after January 2014** and require the decoder to be soldered to the motor contacts. **NOTE: The motor contacts MUST be fully insulated from the chassis halves or you risk damaging the decoder!!**

³ The TCS decoders come with motor contact “shoes” for units prior to January 2014. These decoders can be used with units produced after January 2014 by removing the contact shoes and soldering the motor wires directly.

⁴ The N Scale SD40-2W requires soldering for the headlight and reverse light. These decoders come with pre-soldered LED lights that must be removed (except for the TCS IMD4-W). Note their location soldered on the DCC decoder. For all manufacturers’ decoders, the existing wired LED lights used on the factory DC board need to be soldered to the DCC decoder the location of the previously removed pre-soldered LED lights (or as directed for the TCS IMD4-W). If the lights do not illuminate, simply reverse the wires of the individual LED and try again.

N Scale Sound:

N FP7A and FP9A – MRC1833 (sound) and MRC1833NS (non-sound) available from InterMountain:

<http://www.imrcmodels.com/n/nacc.htm>

NOTE: The MRC1833 and MRC1833NS only fit in the N scale FP7A and FP9A specifically. These decoders do NOT physically fit in the FTA/B, F3A/B, or F7A/B.

N Cab Forward Sound:

ESU LokSound Select Micro #73800 with #73409 or #73809 sound file written to decoder

The ESU #50321 speaker is recommended. The #50326, #50327, #50328 may also provide good results.

SoundTraxx TSU-750 #826005 (must have #810123 or equivalent wired 8-pin plug added for use)

The SoundTraxx #810112 small oval speaker is recommended.

HO Scale Non-Sound Decoder Information:

ALL InterMountain HO locomotives shipped from InterMountain after January 2011 are DCC equipped from the factory. The DCC decoder for both sound and non-sound versions operate on DC or DCC out of the box. **Note that when operated in DC mode, these decoders require more voltage to get the locomotive to move than straight DC locomotives.** For DC only operators, InterMountain provides a DC jumper system for a nominal fee to allow any InterMountain HO locomotive to operate on DC with other manufacturer's locomotives. The jumper system bypasses the motor outputs of the decoder and connects the locomotive motor directly to the track power. The lighting remains properly functional using DC with no additional requirements.

Non-Sound locomotives shipped from InterMountain before January 2011 (F3, F7, FP7, FP9, U18B, and AC-12), include an NMRA 8-pin socket, which allows for the quick and simple installation of a DCC decoder. Any NMRA 8-pin plug decoder with wires between the decoder and 8-pin plug works quite well. **Please note that direct plug style decoders, with the 8-pins directly mounted to the decoder, do NOT physically fit.**

HO Scale Sound Decoder Information:

If you would like your InterMountain locomotives to be sound equipped, we highly recommend that you purchase our factory sound equipped locomotives from your preferred hobby outlet. These locomotives have a high quality, accurate, realistic sounding, ESU LokSound Select Aux 6 21-MTC decoder plugged into a "motherboard". This allows for easy decoder changeability without soldering. These decoders are also completely sound file re-writable with the ESU LokProgrammer. The LokSound Select decoder manual can be found here:

<http://intermountain-railway.com/customerservice/dccwebpage/ESU-LokSound-Select-Manual.pdf>

Information for InterMountain locomotives with Soundtraxx Tsunami decoders can be found here:

http://soundtraxx.com/factory/OEM_pages/intermountain/intermountain.php

If you wish to purchase InterMountain DCC equipped non-sound locomotives and add your own aftermarket sound decoder, various sound decoders are available. **Some of these options may require soldering.** The information in the table below should be used as a general guideline. In some cases locomotive modification may be required for some sound decoders and/or the speaker to physically fit.

Retail Customers Note: Direct plug-in (no soldering required) ESU LokSound Select sound decoders for InterMountain locomotives may be purchased from InterMountain. Call for pricing and availability.

	SoundTraxx (Retail)	QSI	ESU LokSound Select
FTA/B, F3A/B, F7A/B, F9B, FP7A, FP9A	EMD 567 828070 TSU-IM1000	Titan-A or Titan-U* EMD 567 File #1161-567 *Titan-U may have space limitations	EMD 567 16Cyl Non Turbo #73406 – 6 function #73606 – 4 function #73806 – Micro
U18B	GE FDL-16* 828046 TSU-AT1000 *Not accurate sound for U18B	Titan-A or Titan-U* GE FDL12 File #1128-FDL12 *Titan-U may have space limitations *Not accurate sound for U18B	GE 8Cyl FDL U18B #73404 – 6 function #73604 – 4 function #73804 – Micro
SD40-2 SD40-2W	EMD 645 Turbocharged 828071 TSU-IM1000	Titan-A or Titan-U* EMD 645 File #1140-645 *Titan-U may have space limitations	EMD 16Cyl 645E3 #73408 – 6 function #73608 – 4 function #73808 – Micro
ES44AC ES44DC	GE GEVO-12 828074 TSU-IM1000	Titan-A or Titan-U* GE 7FDL16 (Modern) File #1142-7FDL16 *Titan-U may have space limitations *Not accurate sound for ES44	GE GEVO-12 #73403 – 6 function #73603 – 4 function #73803 – Micro
	http://www.soundtraxx.com	http://www.qsisolutions.com	http://www.esu.eu/en

TCS offers the WOW121-Diesel which contains accurate sounds for our F units and SD40-2 models.

<http://www.tcsdcc.com/>

The decoders listed above are available (or can be ordered) from hobby outlets that stock DCC products.

Speaker Information:

HO F units use a 1.10" diameter speaker.

HO U18B uses a 1.38" L x .640" W x .277" H (approximate size) rectangular speaker.

HO SD40-2 and SD40-2W use a 1.38" L x .640" W x .277" H (approximate size) rectangular speaker.

HO ES44AC and ES44DC use a 1.10" round speaker.

Alternate speakers may be available from RailMaster Hobbies. <http://www.railmasterhobbies.com>