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Digitrax Command Control

DN145K

1 Amp Plug N' Play DCC Mobile Decoder for KATO N-scale PA-1 / E-8

1.0 Amp (1.5 Amp Peak) Mobile DCC Decoder

Easy, no solder installation

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

User Programmable Address, Acceleration, Deceleration,
Start-voltage, Mid-point voltage, Max 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 Outputs or as FXTM Outputs
To 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

Compatible with the DCC Standard

Made in USA

Complies with FCC Part 15, class B RFI requirements

Digitrax manuals & instructions are updated periodically.
Please visit www.digitrax.com for the latest version.





Decoder Installation Instructions. For DN145K In Kato N-scale PA-1/E-8

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, contact Digitrax (770) 441-7992, Fax (770) 441-0759, or e-mail sales@digitrax.com and we will gladly send you a copy.

1. Remove locomotive shell using tooth picks to hold the shell locking tabs away from the frame. (See Figure 1)

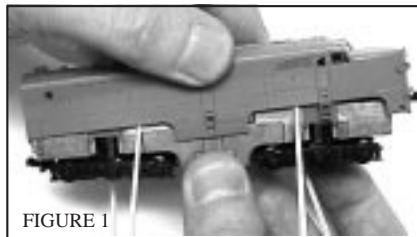


FIGURE 1

2. Take some time to study the location of the various parts and how they fit together.
3. Remove the motor brush retainer clip, then slide the whole light board forward until it comes loose from the locomotive frame.

IMPORTANT NOTE: As you disassemble the locomotive, keep all the parts in the same direction as you remove them. This will help during reassembly.

4. Mark the LEFT pick-up rail with a marking pen. (See Figure 2). This is to ensure that they don't get mixed up before reassembly.

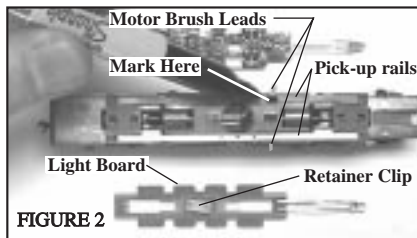


FIGURE 2

5. Remove the left and right pick-up rails. Gently rotate them toward the outside of the frame. Be careful not to bend them. Do not get them mixed up.

6. A piece of yellow KAPTON Tape was included with your DN145K. Cut it in half, fold the first piece over the outside edge of the LEFT pick-up rail. Position the tape just ahead of the raised contact points on the rail. (See Figure 3). Make sure you fold the tape flush with the outside edge of the pick-up rail or it will not fit back in the frame during reassembly.

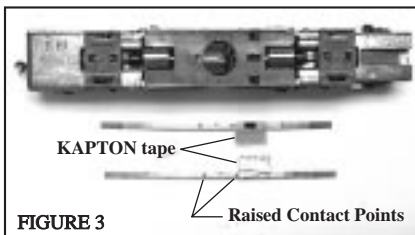
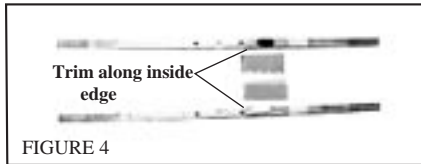


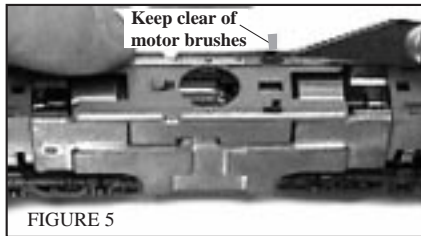
FIGURE 3

- Using the second piece of KAPTON tape, take the RIGHT pick-up rail and repeat the same procedure as on the LEFT rail.

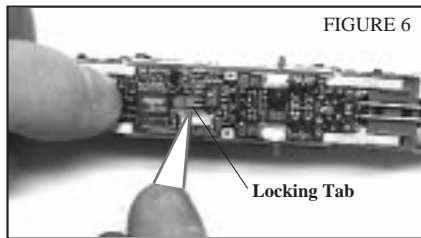


7. Trim the extra tape from the **INSIDE** edge of both pick-up rails. (See Figure 4) Make sure that you trim the inside edge of each rail or a possible short circuit may occur when reassembled. (An X-Acto knife or sharp scissors work well here)

8. Reinstall the pick-up rails into the locomotive frame. Insert the outside edge under the plastic tabs making sure the raised contact points are up and the hole in the rail fits over the line up pin. Make sure that the pick-up rail with the mark is installed on the left side. (See Figure 5)

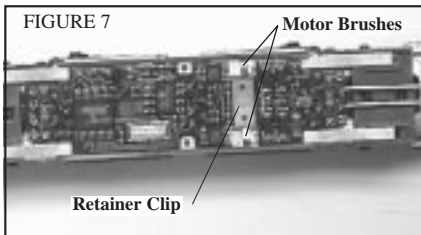


Keep the motor brush leads clear of the pick-up rails.



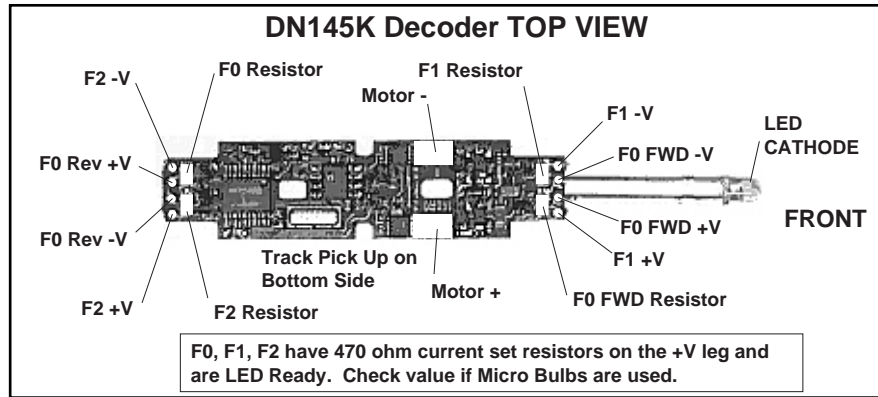
9. Place the decoder on the frame with the locking tab through the hole at the rear of the decoder. (See Figure 6) Make sure the motor brush leads are not caught under the decoder. Slide the decoder toward the rear of the loco until the locking tab latches the decoder.

10. Bend both motor brush leads toward the the motor pads on the decoder. Press the retainer clip into the hole between the motor pads clamping the motor brush leads to the motor pads of the decoder. (See Figure 7) After the decoder is installed, push the headlight LED down to bend it to the correct shape. See the LED in the original lightboard.



11. Place chassis on test track to verify installation. The default address value of the DN145K when it is shipped from the factory is 03. After testing, program the decoder address and CV values using the DIGITRAX Decoder Manual.

12. Replace the locomotive shell by placing it on the frame and gently snapping it in place.



Functions on the DN145K

DN145K comes equipped with one LED set up as F0 forward, This means that when you install the decoder your headlight will be directional.

If you wish to control the F0 reverse function separately from your throttle, you can program F0 reverse to run on F4 as an independent non-directional function.

Function 1 & Function 2 are also available on the decoder. If you wish to use these functions you will need to solder wires to the pads indicated and then run the wires to the lights or other functions you wish to control. Please check the decoder manual section on lamp wiring if you are using 1.5V lamps. 470 ohm current setting resistors are already installed for LED applications.

All four functions can be set up with Digitrax Real FXTM functions. See your Digitrax Decoder Manual for complete instructions for setting up these special lighting effects.

Commonly Used Configuration Variables			Commonly Used Configuration Variables		
CV#	Used For	Default	CV#	Used For	Value
CV01	2-digit address	03	CV61	Directional Lights or White=F0 & Yellow=F4.	0
CV02	Start Voltage	0	CV49-54	FXTM Effect Set ups	See Manual
CV03	Acceleration Rate	0	CV65-95	Loadable Speed Tables	See Manual
CV04	Deceleration Rate	0			
CV05	Maximum Voltage	0			
CV06	Mid Point Voltage	0			
CV29	Configuration Register	06=Advanced Mode, Analog Conversion On			
	Examples:	04=Standard Mode (14 Speed Steps), Analog Conversion On			
		07=Reversed Direction, Advanced Mode, Analog Conversion On			
		16=Enable Loadable Speed Table, Analog Conversion On			

Damaged decoders should be returned directly to Digitrax for repair. The standard repair charge is \$17. NOTE: DN145K decoders with circuit boards that are broken apart are not covered by our warranty. Please follow installation instructions carefully to avoid breaking the PCB.

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