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Digitrax Command Control

DN148K

1 Amp Plug N' Play DCC Mobile Decoder for KATO N-scale RS-2 & RSC-2

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 FX™ 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.



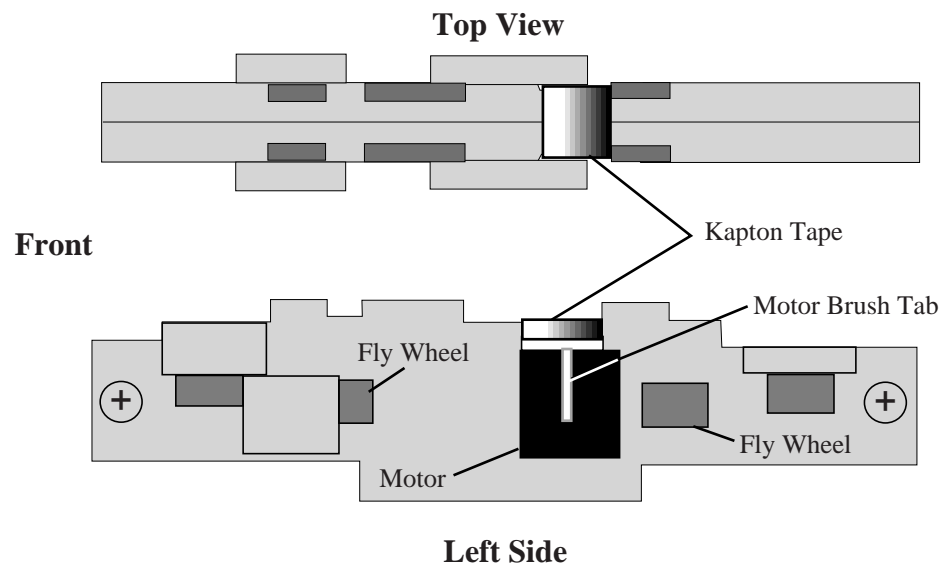


Decoder Installation Instructions. For DN148K In Kato N-scale RS-2 and RSC-2

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 and walkway.
2. Remove the lamp board by gently sliding it back and lifting up. NOTE: Motor Clips may have to be pulled outward to clear frame. Be sure front LED does not catch on frame during removal. (If Lamp Board won't slide back, loosen the two frame screws 1/2 turn.)
3. Your decoder was shipped secured to a piece of foam packing material by a piece of yellow Kapton tape. Remove this tape carefully for use in step 4.
NOTE: Do Not Remove The Kapton Tape From The Bottom Of The Decoder PCB.
4. To insure motor isolation from the frame, cut a 3/8" x 1/2" piece of yellow Kapton tape (Provided) and place it across the top of the frame directly over the motor opening as shown in the FIGURE 1 below. Be sure that the motor brushes are free of the tape.

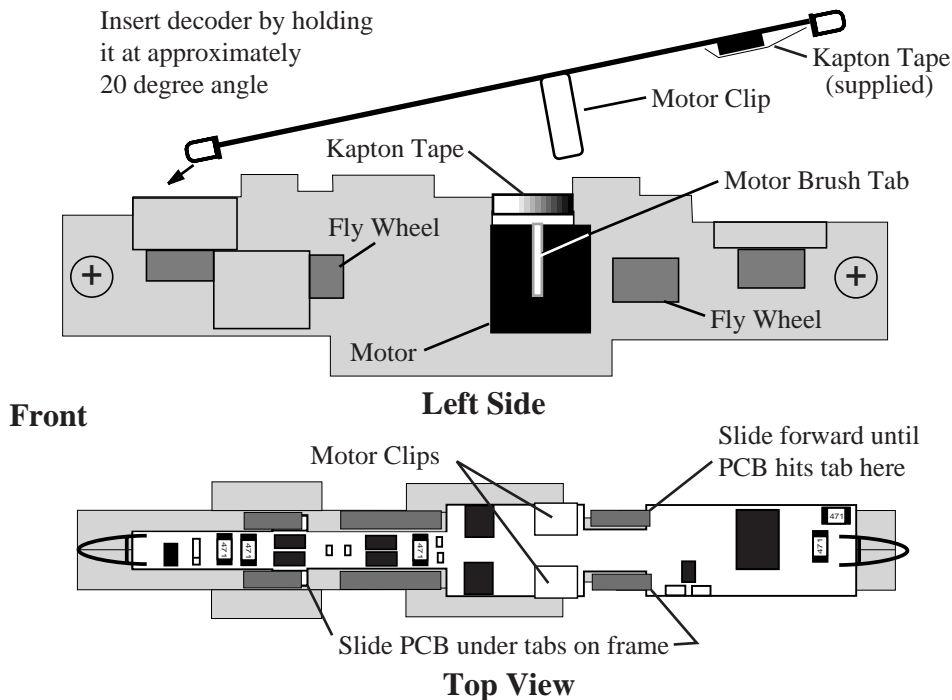
FIGURE 1



Caution: It is necessary to flex the PCB when installing. Caution should be taken to keep this to a minimum to avoid undue stress to the PCB.

5. Insert the front of the decoder into the front of the frame by lowering the decoder at a 20 degree angle. Gently engage the front end of the decoder in the notches in the front of the frame.
6. Once the front part of the decoder is engaged, lower the copper motor clips over the motor brush tabs. You may need to hold the brush tabs in with your fingers as you slide the motor clips over them.
7. Engage the rear section of the decoder under the notches in the frame.
8. To secure the decoder in the frame, push the decoder forward into the frame until it rests against frame tabs. See FIGURE 2. (If you had to loosen frame screws in step 2, tighten them now.)
9. To remove the decoder, disengage the decoder by pushing it toward the rear of the frame. Once the rear tabs are free, lift the back of the decoder and continue sliding toward the rear until disengaged. NOTE: Motor Clips may have to be pulled outward to clear frame. Be sure front LED does not catch on frame during removal.

FIGURE 2



Functions on the DN148K

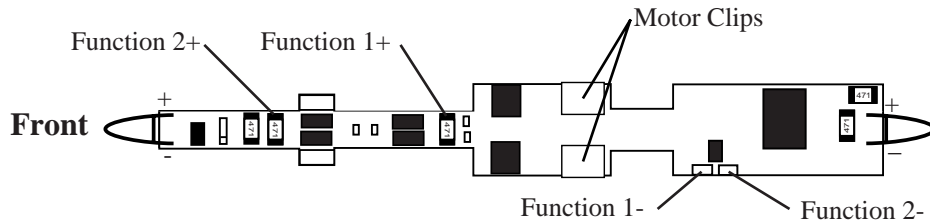
DN148K comes equipped with two LED's set up as F0 forward and F0 reverse, this means that when you install the decoder your headlights will be directional.

If you wish to control these lights separately from your throttle, then you can program F0 reverse to run on F4 as an independent non-directional function. (see CV61 in chart at bottom of page)

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 in FIGURE 3, then run the wires to the lights or other functions you wish to control. If you are using 1.5V lamps or LED's, the current setting resistors are already on the PCB for these applications.

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

FIGURE 3



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	FX™ 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. Please use the original foam packing block if you do need to ship any DN148K's for repair. Please follow installation instructions carefully to avoid breaking the PCB.

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