Kato Digitrax DCC Decoder.

29-353 Decoder FR11 For White LED Passenger Car Lighting Set 11-209 & 11-210.

This decoder works to turn on or off the passenger car lighting and to stabilize the brightness of the lighting in DCC friendly train cars, regardless the train stops or runs.

As for the way of installation in the passenger cars, please read the instruction sheet attached to the White LED lighting set.

- How to install the Decoder to the passenger car lighting set

Please fit the parts to the enclosed bracket in order of 1 lighting p.c.board and decoder as shown in the picture.
Bracket
1. Lighting p.c.board
2. Decoder

Fit them like this.

Please install the bracket fitted with lighting p.c.board and decoder onto the car according to the instruction sheet enclosed with the white LED lighting set.

***This product can be used only for LED type 11-209 and 11-210 White LED Lighting Sets**, and **cannot** be used for light bulb type **11-201, 12-205, 11-204 and 11-206 Lighting Sets.**

- Rating and Function of FR11 (for Passenger Car Lighting Set)

Default address value:　03 (Range it can be changed in):　01-9983)
Function Circuits: 1 Circuit (For Passenger Car Lighting): F1 key switches the lighting ON/OFF (The key can be changed.)
Maximum Current:　65mA

The decoder can be customized in the function by changing the following program values.

Program items and their values			
CV	Default value	Function	Value range or Value Setting Example
CV01	03	2 digit address	01 ~ 127
CV61 CV64	02 00	With combination of CV61 and CV64, the function No. (Key) can be set to turn on/off the lighting. Default Setting is “F1”. With F1 Key, it can be turned on/off.	

In case of changing the function No., please select the item which you want to set and program the values under CV61 and CV64 in the decoder.

CV61	CV64	Function No. which can be switched on/off	Transponding (Position Detection)	
00	00	F1	OFF	
01	00	F0	OFF	
02	00	F1	ON	(Default Setting)
03	00	F0	ON	
02	01	F3	ON	
02	02	F5	ON	
00	01	F3	OFF	
00	02	F5	OFF	

*CV Values can be only written in and cannot be read out.

- Compliance, Warnings & Handling.

Please use this decoder in combination with devices complying with NMRA DCC rules. With controlling devices employing another digital system, it will not work.

This product is an electronic device. So rough handling, water or static electricity may break the chip.

As it is a p.c.board, it has tiny and pointed parts. Please store the product where small children cannot reach their hands to.

Train car installed with the DCC decoder can be run on analog-operated track as well,

but may not run when the power pack controller does not match with it.

The specifications and price of the product is subject to change without preannouncement.