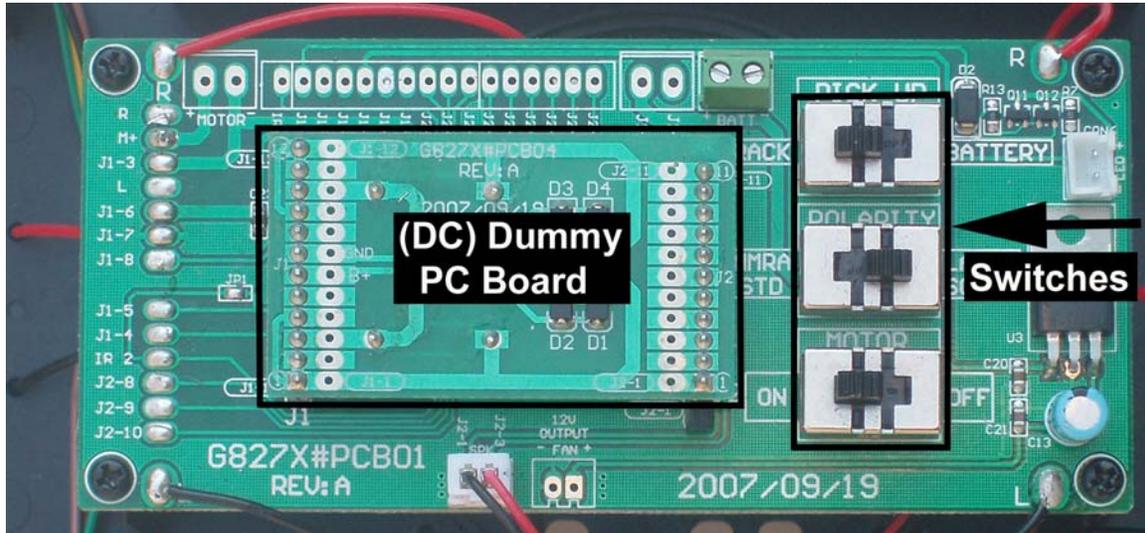


Lenz Gold Maxi DCC Decoder Install for DCC operation with Sound for Bachmann's K27 Large Scale Steam Locomotive

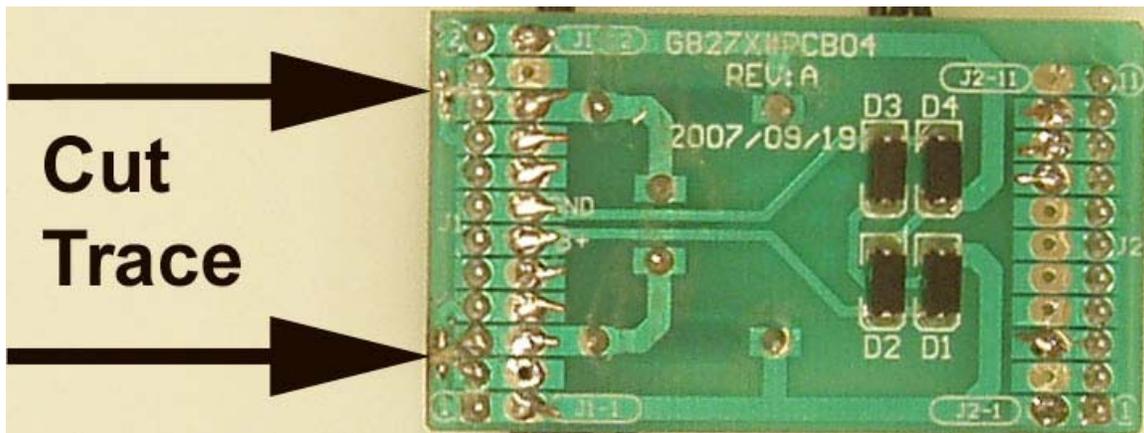


Lenz produces a DCC decoder that easily installs in the Bachmann K-27. The following installation instructions are provided to gain the full benefits of the socket in the K27 when used with the Lenz Gold Maxi decoder in DCC/DC/or RC mode.

The first step is to install a speaker. The tender is designed to have a large 3 inch speaker installed under the main circuit board. Removing the 4 screws holding the board and moving it to one side provides easy access to the speaker area. Remove the 4 speaker placement screws, place the speaker in the space provided and reinstall the speaker holding screws. Next solder the 2 wire speaker cable that was provided with your locomotive to the speaker, reinstall the screws on the main board the main board and plug the speaker cable into its socket in the Main tender PC board.

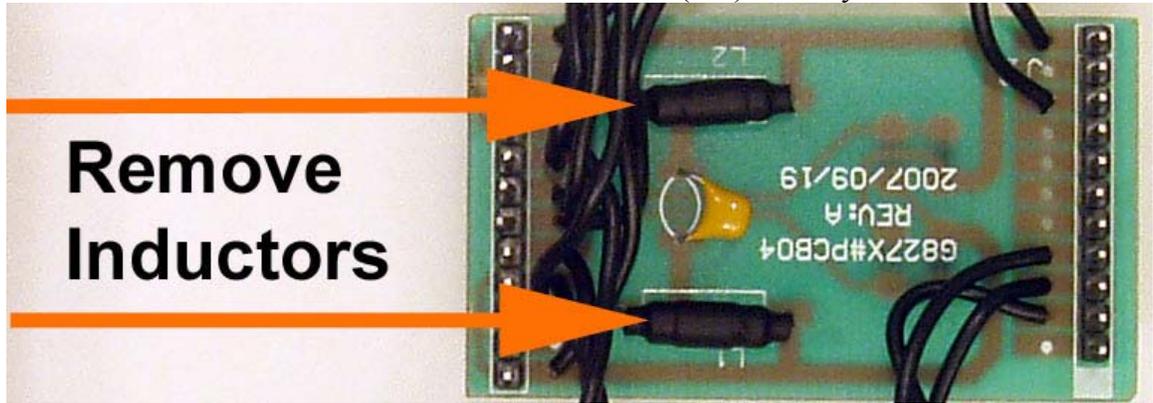
The following describes a DC install for the Lenz Gold Maxi decoder in the K-27 using the (DC) Dummy PC Board. Either the solder pads on the engineers' side of the tender or the (DC) Dummy PC Board can be used to attach after market electronics. The (DC) Dummy PC Board is being used for this install since it allows the modeler to perform the installation at the workbench.

The first step is to remove the (DC) Dummy PC Board from the tender. All of the following connection points refer to the solder connections on the (DC) Dummy PC Board



- 1) Carefully cut a gap in the small trace at the front of the dummy board between pins J1:1 and J1:4
- 2) Carefully cut a gap in the small trace at the front of the dummy board between pins J1:12 and J1:8

- 3) Remove the two inductors from the underside of the (DC) Dummy board.



- 4) Using the following table solder one end of a wire to the (DC Dummy board and screw the other end into the corresponding position on the Lenz Gold Maxi decoder.

K27 Pin number J1	Lenz Gold Maxi Pin	Purpose	K27 Pin Number J2	Lenz Gold Maxi Pin	Purpose
12	G2	Rail +	12		Solid Key
11		Rail +	11	Charge	Optional power management
10	M1	Motor +	10	FC	Firebox Flicker
9	FB	Rear Light on Tender	9	FD	Classification Lights
8	FF	Smoke Unit	8	FE	Cab Light
7	GND	Locomotive Ground	7	FG	Optional extra function
6	U+	Locomotive Positive	6	FH	Optional extra function
5	Susi Sound board chuff input	Chuff	5		Train Bus -
4	FA	Front Locomotive Headlight	4		Train Bus +
3	M2	Motor -	3	SUSI sound board speaker	Speaker -
2		Rail -	2	ext K	Optional 2 nd input
1	G1	Rail -	1	Susi Sound board Speaker	Speaker +
					Solid Key



Hybrid Drive Install

Hybrid drive allows the decoder to pick up the DCC signal and control the locomotive while the locomotive is on dirty track. To enable this feature you need on board power in the locomotive.

To accomplish this install 12 NiMH rechargeable batteries in the tender. If using track power these batteries can be 900maH or greater AAA, AA, or Sub C batteries. If using the optional radio input these batteries should be sub C batteries.

Connect the – side of the battery pack to the solder pad on the Main tender board labeled J1:

If using track power install a charging circuit which consists of a 100 ohm 10 watt resistor and a 6 amp diode.

Install the + lead of the battery to the charging circuit and the end of the charging circuit to J1:

Install a switch to turn off the battery when not in use. This can be a manual switch or relay controlled by the charge pin. If using the charge pin contact Lenz GmbH for instructions.

If using a DCC radio interface connect the radio output to the battery inputs. The input switch is then used to switch between track signal and RC signal.

Sound Board Install

Either plug in a SUSI equipped sound board into the socket on the Gold Maxi or connect a sound board directly to the Gold Maxi decoder using its output functions. Contact the Lenz Agency directly for more information on sound installations.

For More information on the Lenz Gold Maxi decoder contact:

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