DCC Decoder Default Resets

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A not uncommon problem with mobile DCC decoders is losing settings as occurs at times when a short circuit is experienced on the track feed, or making mistakes when changing CV's (Configuration Variables). The best way to overcome a problem such as this is to reset the decoder to its default factory settings and start over (if you are using JMRI or some such, keep records of settings).

Many decoders returned for repair could have been reset to factory settings.

Since the factory reset is not in the NMRA DCC standards or recommended practices, each manufacturer can do their own thing. If you do not know the manufacturer of your decoder, you can try reading CV8 on the program track. This is a read only CV that has the manufacturer's ID number (numbers are shown in decimal)

Listed here are the most common Decoder ID's and reset procedures. For other decoders check the manual for CV and value used to reset to factory settings. All these decoders do support Ops Mode programming and can be reset on the mainline assuming you have control of the address.

If you do not have control of the address use the program track.

Manufacturer	ID in CV8	CV for reset + value
Lenz	99	CV8 = 33
NCE	11	CV30 = 2
Digitrax	12	CV8 = 8
LokSound (ESU)	15	CV8 = 8
Train Control System	153	CV8 = 8 or CV30 = 2
SoundTraxx: DSDLC, DSX Tsunami [1]	141	CV 30 = 2 CV8= 8
MRC (New) [2]	143	CV125 = 1
QSI [1]	113	

[1] *Generally requires PowerPax, Programming Track Booster*

[2] *Generally is not reliable in Read-Back*

To Reset a Decoder
Start by determining the decoder manufacturer.
On the program track read CV 8.

Compare the number with the above chart for the ID (if you have a QSI decoder [ID 113]

Then write to the matching CV the value as shown in the chart (writing a number to CV 8 will not change the value in CV8 when you read it back). When resetting the decoder, it may respond by flashing the lights or tooting the horn. Resetting a decoder will change the address back to the default of 3.

Try the decoder on the main line using address 3 to be sure everything is okay. Then you can start your programming.

Resetting QSI Decoders to factory default

The Broadway, Atlas, and Lifelike equipped with QSI (ID 113) DCC sound engines
use a different reset procedure. Check the manual that came with the engine.
Some use a magnetic "wand" for the reset. If there is no "wand" then open the engine
or access hatch and find the reset jumper. Remove the jumper and restore the track power.
There will be an audible acknowledgment from the engine at the end of the reset
sequence (usually 3 toots of the whistle/horn). Replace the jumper and test out using address 3.
If a "wand" is present, locate the internal reset reed switch and place the "wand" over
it for a moment. When track power is restored the engine will go through its reset
procedure and let you know when done.
To find the internal reset (reed) switch, place the engine on active track. Slowly move
the "wand" over the top of the engine or tender until the engine alerts you, audibly responds, by a message.
QSI also has a user software reset using the following multi step procedure:

(1) Place engine on main track if it is still responding to its address. If not responding you may need to use the program track.

(2) Set CV49 to 128

(3) Set CV50 to 255

(4) Set CV56 to 113

As the decoder in the engine resets you will hear an audible response, 3 toots or it may talk to you.

Test the locomotive using address 3.

You can then go ahead and set the loco number as you desire and/or reprogram other CV's. An irritating part with the QSI decoders is that when they do get corrupted by a short, the locomotive affected can be very erratic in operation, resetting to default will put you back in control of its performance.

In this day of instant gratification, the Internet can provide many answers and/or suggestions.