



Technical Bulletin #1.2 Performing factory decoder reset using Digitrax DCS100 & DT400/DT400R

Overview:

To reset locomotive electronics to factory defaults the user must set CV08 to a value of 08. It is recommended that this procedure be performed on the dedicated service mode programming track using direct mode programming.

* Note: This is the only programming procedure that we recommend using the programming track for. All other programming should be performed on the main track using Operations mode programming.

Procedure:

1. Place the Tower 55 locomotive on a dedicated service-mode programming track.
 - * Note: The rails of this track should be connected to the **PROG A** & **PROG B** outputs on the DCS100 command station.
2. Set the mode switch on the DCS100 to **RUN**.
3. Plug the DT400/DT400R throttle into either Loconet port A or B.
4. Press the **PROG** key on the DT400/DT400R throttle until "**Pd**" appears in the bottom center of the LCD display.
 - * Note: This is the setting for direct mode programming.
5. Using the left hand throttle knob on the DT400/DT400R, select **CV08** by rotating the knob clockwise until "**008**" is displayed on the left side of the LCD display.
6. Using the right hand throttle knob on the DT400/DT400R, select the value of **08** to program CV08 to, by rotating the knob clockwise until "**008**" is displayed on the right side of the LCD display.
7. Press the **ENTER** key on the DT400/DT400R throttle.
(The LED display will read "**008=wr**" for a short time, then "**008=Good**", followed by "**008=008**")
8. Repeat Step 7 two more times to ensure that the command has been received by the electronics.
9. Press the **EXIT** key on the DT400/DT400R throttle.
10. The reset of the electronics to factory default is now complete.



Testing:

1. Place the Tower 55 locomotive that was reset in the preceding procedure on the main track.

* Note: The rails of this track should be connected to the **RAIL A** & **RAIL B** outputs on the DCS100 command station.
2. Set the mode switch on the DCS100 to **RUN**.
3. Plug the DT400/DT400R throttle into either Loconet port A or B.
4. Turn either the left or right throttle knob on the DT400/DT400R to select a throttle to control the locomotive.
5. Press the **LOCO** key on the DT400/DT400.
(The center of the LCD display will read "**Sel Loco**" and the locomotive address in either the left or right lower corner, depending on which throttle knob was chosen in step 4, of the LCD display should begin flashing)
6. Enter "**03**" using the numeric keypad on the DT400/DT400R.
(The locomotive address in the lower corner of the LCD display will be flashing "**03**")
7. Press the **LOCO** key on the DT400/DT400R.
(The locomotive address in the lower corner of the LCD display will display "**03**" solid and the locomotive sounds should start up)
8. Select the forward direction of travel by pressing either the **L** or **R** key on the DT400/DT400R that corresponds with the throttle knob that you selected in step 4 until the arrow under the steam locomotive icon in the lower corner of the LCD display is pointing toward the front of the steam locomotive icon.
(The front end head, number board & ditch lights should turn on. If not, see step 9. Otherwise go to step 10)
9. To turn on the lights press the "**0**" key on the DT400/DT400R.
(The front end head, number board & ditch lights should turn on)
10. Increase the throttle setting by turning the throttle knob on the DT400/DT400R selected in step 4 clockwise.
(Confirm that the locomotive moves in the forward direction)
11. Press the "**2**" key on the DT400/DT400R.
(Confirm that the horn sounds and that the ditch lights alternate flashing for a few seconds before returning to solid)
12. Decrease the throttle setting to zero by turning the throttle knob on the DT400/DT400R selected in step 4 counterclockwise until the LCD displays "**00**" for the speed setting and the locomotive stops moving.
13. Select the reverse direction of travel by pressing either the **L** or **R** key on the DT400/DT400R that corresponds with the throttle knob that you selected in step 4 until the arrow under the steam locomotive icon in the lower corner of the LCD display is pointing toward the rear of the steam locomotive icon.
(The rear end headlight should turn on and the front lights, except for the number boards should turn off)
14. Increase the throttle setting by turning the throttle knob on the DT400/DT400R selected in step 4 clockwise.



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(Confirm that the locomotive moves in the reverse direction)

15. Decrease the throttle setting to zero by turning the throttle knob on the DT400/DT400R selected in step 4 counterclockwise until the LCD displays "00" for the speed setting and the locomotive stops moving.
16. The operation test is now complete.