## Working with MTH locos, JMRI and SPROG

The HO locos from Mike's Train House (MTH) with designation PS3 support limited DCC programming, and full DCC control of operation.

DCC Programming has to be done "on the Main", otherwise called Operations Mode, and only the running Address, 2 or 4 digit, and acceleration and deceleration variables can be programmed.

By default, the address is set to Short Address 3.

To use JMRI and SPROG, this address needs to be changed, and due to a default DCC setting in JMRI/SPROG, some set up is needed first.

A: Clear the default

- 1. Connect to SPROG using the SPROG programming track mode
- 2. From the menu select Tools>Throttles>New Throttle
- 3. In the throttle enter an address you will NOT use, e.g. 127 and click SET
- 4. Quit this session of DecoderPro

B: Access the loco on Address 3

- 1. Connect to SPROG using SPROG COMMAND STATION mode
- 2. First time through:
  - a. Select the Operations Mode (Main Track) Programmer
  - b. from the Roster menu select New Roster Entry
  - c. Select the Mike's Train House programmer
  - d. Save the roster entry as MTH3, and close the selector window
- 3. From the main window select Tools>Throttles>New Throttle
- 4. In the top area of the window, click the Track Power button to Green
- 5. Optionally, select the loco as address 3, and check its functions.

## C: Reprogram the address

- 6. Leave the track power turned on
- 7. Select the Operations Mode (Main Track) Programmer
- 8. From the drop-down list, select the MTH3 Roster entry
- 9. Open the Basic tab, and Set desired loco Address (and other settings)
- 10. Click Write Full Sheet. The loco will reprogram, and usually emit a short horn sound
- 11. In the Throttle window, Click Release
- 12. Set the new address value and click SET
- 13. Try Horn or Bell functions

Create another Roster entry with the new loco address, for future access.

Create one more Roster, address 55, to allow Reset in future.

## Why is it like this?

In Program on the Main, the DCC messages are sent to a specific loco, and it is therefore necessary to know the address of the loco we are programming at each step.

The target address is retrieved from the stored Roster entry, and so needs to be stored before becoming available to use.

For this set of operations with an MTH loco, since it can ONLY be programmed "on the Main", we need a pre-stored roster entry for each of the addresses to be used.

Initially, the loco is at address 3, so we create the MTH3 roster entry, default address 3 set in it, and save that. This Roster entry can now be used to access and program and new MTH loco.

Once the address is changed, the MTH3 profile can no longer send programming messages to the loco, and so we need to generate another Roster entry, and in that entry, set the running address that the loco will use, so that we can access other functions, or change the address in future.

For example, the loco will be used with the running address of 4449, so create a new Roster entry, name it SP4449 (or your preferred name), and set the address to be 4 digit addressing, 4449. Save this Roster entry.

Finally, to Reset any MTH loco to factory settings, the loco needs to be at address 55.

This requires another Roster entry, where the address is 55, and CV 55 is available, to be able to write the value 55 to it. Name this one MTH55

To Reset an MTH loco:

- 1. Access the loco on the CURRENT address, using the saved Roster entry (SP4449 in our example)
- 2. In the Basic sheet, set the address to become 2 digit addressing, 55. Write Full Sheet.
- 3. Close this Programmer.
- 4. Access the loco with Roster entry MTH55, and on the MTH sheet, Write Full Sheet. This will write 55 to CV 55, and reset the loco.
- 5. Close this Programmer.
- 6. Access the loco with Roster MTH3 to make further changes.