



Addressing M.T.H. HO Locomotives Using the Digitrax System

Short Address Changes

To change the K-4's address on the Zephyr system you'll need to use OPS mode. Programming tracks won't work with MTH engines. So, if you want to change the short address that's very simply done by:

1. Apply Power To The Track
2. Select the engine's current address (default is addr 3)
3. Hit the number 3 button and the engine should start up
4. Hit the PROG button until OPS is displayed
5. Hit the LOCO button until Ad2 is displayed
6. Punch in the 2 digit address you want for the engine using the numeric keypad on the Zephyr system
7. Hit the CV-WR button and you should get a "toot-toot" from the engine
8. Hit EXIT
9. Hit LOCO and select the new address you just entered in step 6 then hit LOCO again
10. Press the number 2 button on the keypad and the whistle should blow

Long Address Changes

Now, for changing the extended address it's a bit more involved but still doable. You should know that the default extended address is the cab number of your engine, so if you're happy with that then you needn't go any further. But should you want to change it, follow these steps:

1. First you'll need to tell the engine to start looking at its extended address. This is CV29
2. Make sure there's power on the track
3. Hit the number 3 button on the keypad and the engine should start up (This assumes you are still at the short address from above, whatever that is you programmed)
4. Hit the PROG button until OPS is displayed
5. Hit the STEPS/CV button once
6. Enter 29 on the keypad
7. Hit the STEPS/CV button again and enter 38 on the keypad and hit the CV-WR button
8. The engine should give you a toot-toot sound.
9. Hit EXIT. You're engine is now in extended addressing.
10. You now have control over your engine using its extended address. You can stop right here if you are happy with that address. Otherwise, if you want to change that extended address to something else continue on. NOTE – If your engine has no cab number the default extended address is 3333.
11. To alter the extended address on your MTH HO engine you need to write values to CV's 17 and 18. There is a spreadsheet attached to help you in determining those values to be written based on the desired extended address you wish to use.

12. Hit the keypad button number 2 and the whistle should blow.
13. Now that the engine is in extended addressing we'll need to do some math to figure out the hexadecimal equivalent of the decimal address you want OR, you can use the attached spreadsheet to see what you'd need to enter (the spreadsheet is a WHOLE lot easier). Let's use the spreadsheet instead.
14. Enter the extended address you want in the "Desired Extended Engine Address" cell. The spreadsheet figures the rest out for you.
15. Once you have the two values for CV17 and 18 you can enter them using the STEPS/CV button and the CV-WR button.
16. Hit the PROG button until OPS is displayed.
17. Hit the STEPS/CV button and enter 17 on the keypad.
18. Hit the STEPS/CV button again and enter the value for CV 17 from the spreadsheet using the keypad.
19. Hit the CV-WR button, you should get a toot-toot from the engine.
20. Hit the STEPS/CV button and enter 18 on the keypad.
21. Hit the STEPS/CV button again and enter the value for CV 18 from the spreadsheet using the keypad.
22. Hit the CV-WR button, you should get a toot-toot from the engine. If you get a "BuSY" indication on the Command Station then repeat step 4, then steps 20-22.
23. Now hit EXIT and then hit LOCO and enter the new address and hit LOCO again.
24. You should now have control of the engine at its new extended address. Hit keypad button number 2 to verify that the whistle blows.

Switching Back To Short Addresses

To switch back to the short address from the extended perform the following steps:

1. Ensure you have power on the track
2. Select the address of the engine you want to change back to 2-digit addressing by hitting LOCO then selecting the address using the keypad hit LOCO again and then hit keypad button number 3. The engine should start up.
3. Now that you have control of the engine at its extended address you need to alter CV29.
4. Hit the PROG button until OPS is displayed.
5. Hit the STEPS/CV button once.
6. Enter 29 on the keypad.
7. Hit the STEPS/CV button once.
8. Enter 6 on the keypad and hit the CV-WR button.
9. The engine should give you a toot-toot.
10. Hit EXIT.
11. Hit the LOCO button and enter the short address that you had programmed for this engine. If you didn't change it then it's default is 3.
12. Hit the LOCO button and then hit keypad button 2 to sound the whistle to ensure you have control of the engine at its short address.

NOTE - If you want to switch back and forth between extended and short addressing you only need to change CV29 to enable either short or long addressing. The engine stores both address, short and long, in memory. CV29 just tells the engine which one to access.

See below for the CV17 and CV18 Conversion Spreadsheet

To use the spreadsheet double-click on it and then enter in the extended address you desire in the first cell. The spreadsheet will calculate the appropriate CV17/18 values for you. Write them down so you can enter them later.