

# Digitrax DCS50 (Zephyr) Decoder Programming Instructions

v1.1

- 1. Place the locomotive on the programming track**
- 2. Place the Zephyr in programming mode**
  - 2.1. Press the “PROG” key
  - 2.2. Ensure display says “PAGe” mode (press “PROG” key to cycle modes)
- 3. Set configuration register (CV29)**
  - 3.1. Press “CV” key (display should read P0XX)
  - 3.2. Press “2-9” (display should read P029)
  - 3.3. Press “CV-RD” (CV Read) key to read existing value (will take a few seconds, and the decoder will make noises)
  - 3.4. Press “3-4” (value 34=128-step advanced mode, 4 digit address, no analog” – 35 for reverse)
  - 3.5. Press “CV-WR” (CV Write) key
- 4. Set 4-digit address**
  - 4.1. Press “LOCO” key twice (display should read “Ad4”)
  - 4.2. Select locomotive address (normally locomotive number)
  - 4.3. Press “CV-WR” key
- 5. Set locomotive mid-point voltage**
  - 5.1. Press “CV” key
  - 5.2. Press “6” key (display should read P006)
  - 5.3. Press “CV-RD” key (NOTE: if display shows no ack, “d nA”, press “CV-RD” key again to force)
  - 5.4. Set value between 1-100 (50 is good starting point, higher = faster at mid throttle setting, 0 default)
  - 5.5. Press “CV-WR” key
- 6. Set locomotive start voltage point speed**
  - 6.1. Press “CV” key
  - 6.2. Press “2” key (display should read P002)
  - 6.3. Press “CV-RD” key (NOTE: if display shows no ack, “d nA”, press “CV-RD” key again to force)
  - 6.4. Set value between 1-100 (50 is good starting point, higher = faster at mid throttle setting, 0 default)
  - 6.5. Press “CV-WR” key
- 7. Adjust CV02 and CV06 as necessary to match speed of calibrated unit**
- 8. When programming complete, press “EXIT”**