## K-AD400 User manual
Version: V100

- **Precautions**
    1. Please read the instruction manual carefully before use.
    2. This product is not a toy and is not suitable for children under 14 years of age.
    3. Do not change the product parts to avoid damage.
    4. Do not place conductive materials on the surface of the product.
    5. Make sure to connect the correct turnout motor after setting the turnout output to avoid damage to the decoder or turnout motor.

- **Features**
    1. It can be connected with 2-wire turnout coil motor (Kato, Tomix), 3-wire turnout coil motor (Peco, Fleschmann...), Cobalt iP Analog motor, MTB MP1 motor, LED display for turnout status, and LED display for level crossing.
    2. 4 sets of turnout output.
    3. DCC can set address 1~1023.
    4. Turnout address, single key setting.
    5. This product complies with NMRA Association DCC specifications.

- Connection Diagram
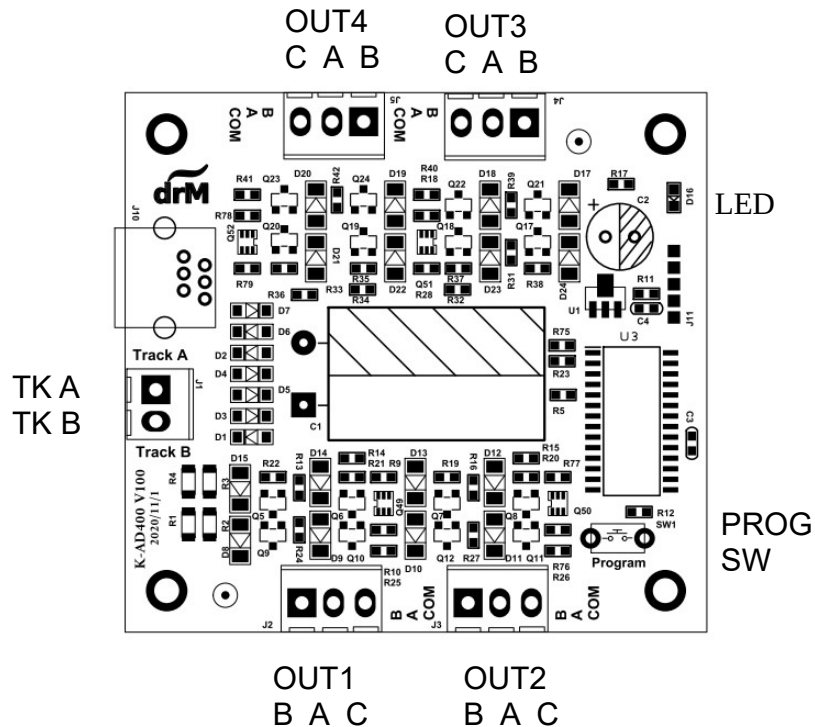
1. OUT1~4   For turnout output terminals, the three-wire connection mode C represents the common end point, A/B is the bipolar end point, and the two-wire connection mode, A/B connects both ends of the turnout wiring.
2. TKA/B   DCC Track power input terminals.
3. PROG SW   DCC address programming button.
4. LED   When the LED is off, it means Power OFF, the LED flashes once for the two-wire coil motor (Kato, Tomix), the LED flashes twice for the three-wire coil motor (Peco...), and the LED flashes three times for the two-wire electric motor (Cobalt iP), LED Four flashes of the three-wire electric motor (MTB MP1), five flashes of the LED represent the turnout LED display, and six flashes of the LED represent the level crossing LED display.
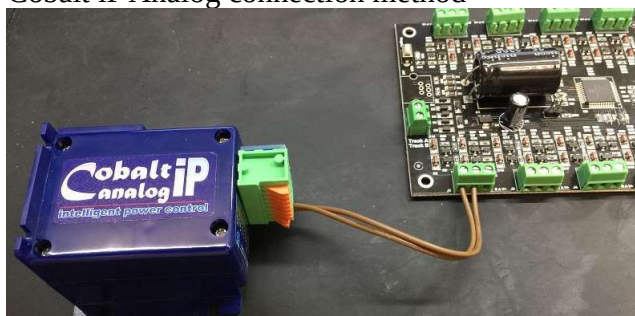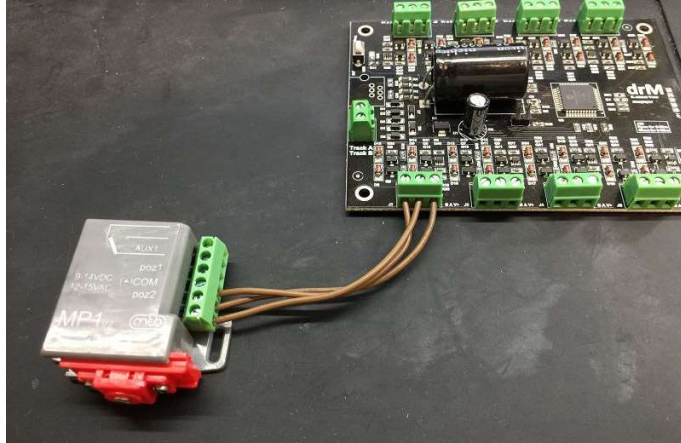
- Kato, Tomix connection method
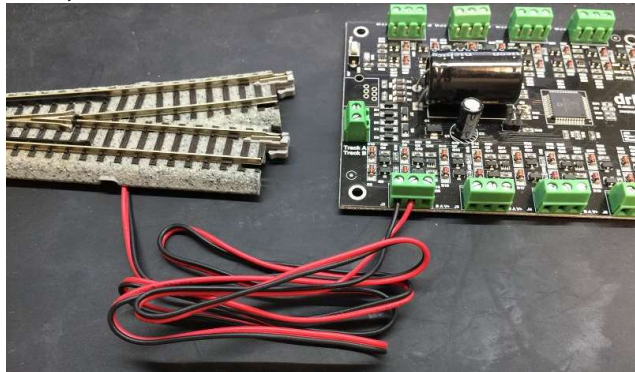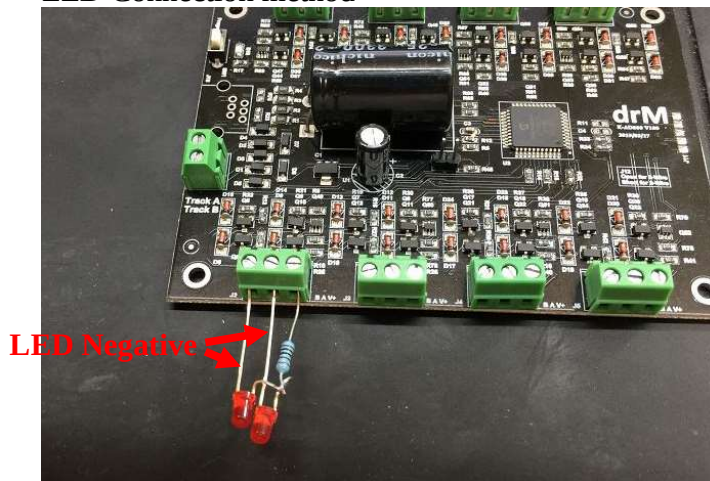

- Peco, Fleschmann….. connection method
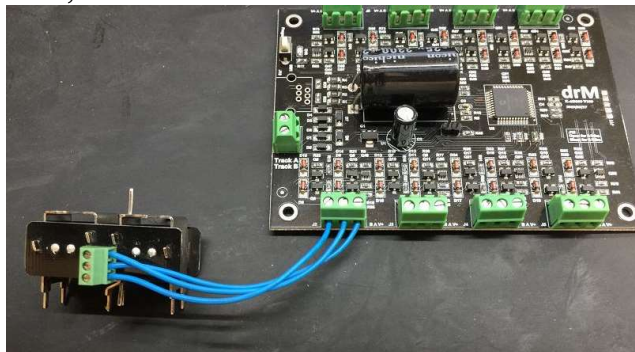
- Cobalt iP Analog connection method

- MTB MP1 connection method

- LED Connection method

LED Negative

- DCC address setting
  1. Connect DCC rail power supply.
  2. Turn on the power of the DCC controller and the LED will light up.
  3. After pressing PROG SW, the LED goes out.
  4. Select the address number you need in the DCC controller, press the switch track action key (C/T), the LED lights up to indicate that the address setting is complete.
  5. The OUT1 address is the address set on the DCC controller, and other outputs are the set address plus one increment.

● List of CV values

CV	Description	Range	Factory setting
8	Reaet	8	
47	Turnout output setting 0 : 2-Wire coil (Kato, Tomix) 1 : 3-Wire coil (Peco, Fleschmann…) 2 : 2-Wire electric (Cobalt iP) 3 : 3-Wire electric (MTB MP1) 4 : LED output (trunout display) 5 : LED output (level crossing sign display)	0~5	1
48	Trunout output 1 delay time (Cobalt iP, MTB MP1)	1~10	5
49	Trunout output 2 delay time (Cobalt iP, MTB MP1)	1~10	5
50	Trunout output 3 delay time (Cobalt iP, MTB MP1)	1~10	5
51	Trunout output 4 delay time (Cobalt iP, MTB MP1)	1~10	5
56	Level crossing signal light display time	1~10	5

● Reset decoder
If you want to reset the decoder CV value, please turn off the power first, press the PROG switch until the CV is written, use the Direct mode on the controller to edit the CV value, write 8 in CV8, and power on all the CV values will return to Factory set value.

● Decoder editing.
Please turn off the power first, press the PROG switch until the CV is written, use the Direct mode on the controller to edit the CV value to write, after writing, the controller displays an error message, please ignore it, and the new set CV value will be loaded after power on.