A DCCconcepts "Modelling advice" publication

DCCconcepts thinking outside the square

Manual Supplement
Cobalt iP digital

COBALT iP DIGITAL - USING THE SPECIAL COMMANDS

Special "Owners Manual" Supplement

iP stands for "Intelligent power". The DCCconcepts Cobalt iP Digital turnout motor includes clever internal electronic control system that adapts itself to a wide range of voltages.

Because of this Cobalt iP Digital only draws power as needed. Only 5/1,000ths of an amp is needed when static. Cobalt iP Digital is usable with all scales, from the tiny T scale" to Z, N, TT, HO, OO, EM, P4, S, O & G or any other scale/gauge combination within these limits.

Cobalt iP Digital has two versatile in-built SPDT switches - Switch 1 is linked to the drive power inputs for control of frog power. Switch 2 is fully independent with high (5a) power handling for any other switching needs you have.

Cobalt iP Digital can be powered by any voltage between 9 and 23v DCC or DC and can be changed by DCC accessory decoder commands from a DCC system or computer, momentary switches or by interaction with other devices. Cobalt iP Digital can use ANY Accessory address 1~2048. (199/198/197 are reserved for special functions)

Interactive power management ensures Cobalt iP Digital is very comfortable with larger scales that may have high accessory bus voltage or when used with DCC control systems with higher output / track voltages.

Please also read all of the owners manual provided before you wire or install your Cobalt iP Digital.

Cobalt iP Digital comes with its throw-bar pre-centred. It has built-in software for automatic self-centering that makes installation easy. The process for de-activation and re-activation of this feature is as follows.

Defeating Self-Centering: (Using address 198)

If you have left self entering on whilst installing the motor (recommended) you will need to de-activate it so that the point sets to "open" or "thrown" on powering up and does not centre itself. Each time that power is interrupted

- Put the **SET/RUN** switch into the **"SET"** position.
- Send address "**198"** (to do this use your controllers instructions for changing an accessory or turnout code.)
- Repeat the change command twice to be sure.
- Return the switch to the "Run" Position"
- **Cycle the power (Switch the power to the motor off and on again).**

Your Cobalt iP motor will now stay at your chosen route at all times. Of course, you will now need to address the Cobalt iP Digital with your chosen DCC operating address. Do NOT use address 199, 198 or 197 though. Use this procedure with the exception of cycling the power which isn't required for standard address setting.

Activating Self-Centering: (Using address 199)

If auto-centering has been disabled, you can re-activate it easily by following this procedure.

- Put the **SET/RUN** switch into the **"SET"** position.
- Send address "**199"** (to do this use your controllers instructions for changing an accessory or turnout code.)
- Repeat the change command twice to be sure.
- Return the switch to the "Run" Position"
- **Cycle the power (Switch the power to the motor off and on again).**

Your Cobalt iP motor will now self-centre each time power is switched off and on.

Swapping the change direction: (Using address 197)

Cobalt iP Digital also has a convenient "Swap direction" command that will change over the "normal or reverse" commands to let you synchronise the movement of Cobalt iP Digital with your computer software.

(If auto-centering has been disabled, you can re-activate it easily by following this procedure.

- Put the **SET/RUN** switch into the **"SET"** position.
- Send address "**197"** (to do this use your controllers instructions for changing an accessory or turnout code.)
- Repeat the change command twice to be sure.
- Return the switch to the "Run" Position"
- **Cycle the power (Switch the power to the motor off and on again).**

Your Cobalt iP motor will now operate correctly (Main/Reverse or Left/Right) in relation to the orientation of your computer control software.