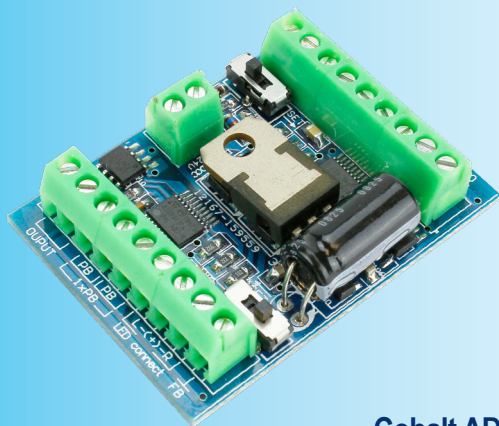# Cobalt ADfx Accessory Decoders
OWNERS MANUAL

General ADfx Product Information

These decoders have been designed to change iP Analog, Omega or similar slow action point motors by DCC or DC power.

By having greater power than similar products, these decoders can operate several point motors at once.

Operation is also available by direct pushbutton (PB) control and there are LED outputs for control panels.

Cobalt ADfx is available in 2, 4, 6 and 8 channels.

Cobalt ADfx Accessory Decoder Specifications

|	
Dimensions:	AD2-fx: 50mm x 35mm x 12mm deep; AD4-fx: 50mm x 74mm x 12mm deep AD6-fx: 50mm x 110mm x 12mm deep; AD8-fx: 50mm x 147mm x 12mm deep
Power:	12~23V DCC or 12-15V regulated DC.
Connection:	Nine screw terminals per channel and two screw terminals for Power In.
Control:	Change turnout via DCC or momentary switches. DCCconcepts offer an economical switch pack (DCP-CMS-D) that includes 6 switches and chrome-mounted LEDs.
Addressing:	Cobalt ADfx has a simple SET/RUN switch at the right hand side of the terminals. Operate the turnout in "SET" and it remembers the address.

Remove Self-Centering

The ADfx is supplied in this mode to aid installation. More details can be found later in this manual.

1. Connect Power In to the track power bus or accessory bus.

2. Gently slide the switch to SET.

3. Operate the turnout as if operating turnout number 198.

4. Remove power and move switch to RUN then reconnect.

Setting the Address

1. Connect Power In to the track power bus or accessory bus.

2. Gently slide the switch to SET.

3. Choose a number then operate the turnout as if operating at that number.

4. Slide the switch to RUN.
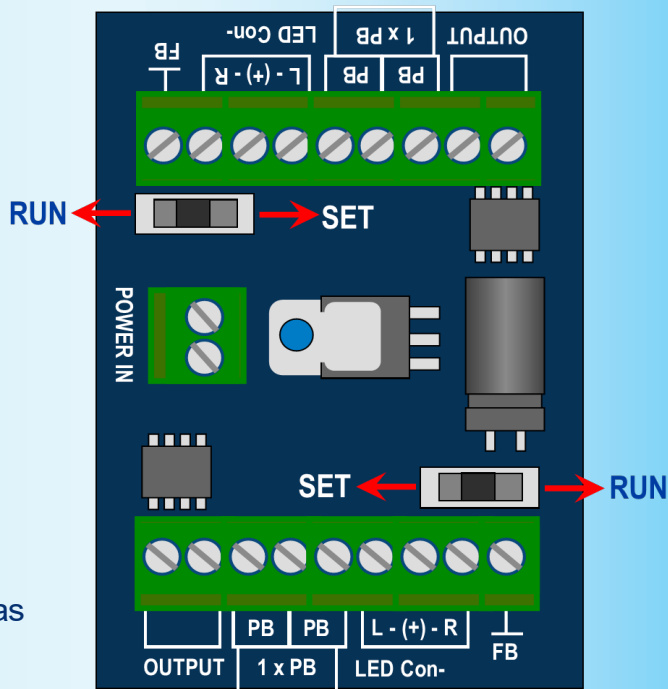
Note: Screen based systems (ESU, Z21, etc) will have to have a turnout number set up first to enable both the above procedures. For 198 this will mean setting up a dummy address for this purpose.

Warranty

DCCconcepts products and exclusive items all carry a full ONE YEAR parts and labour warranty that is effective from the date of purchase. Our warranty covers manufacturing faults and unreasonable failure of any kind. However abuse, misuse or incorrect application will invalidate all warranties.

DCCconcepts' guarantees and warranties are always made in respect of the original owner of the products. While our first priority is to always be sure that users of our products are given the best possible service, we do also reserve the right to request proof of purchase so we can properly establish that you were the original purchaser and user of the product.
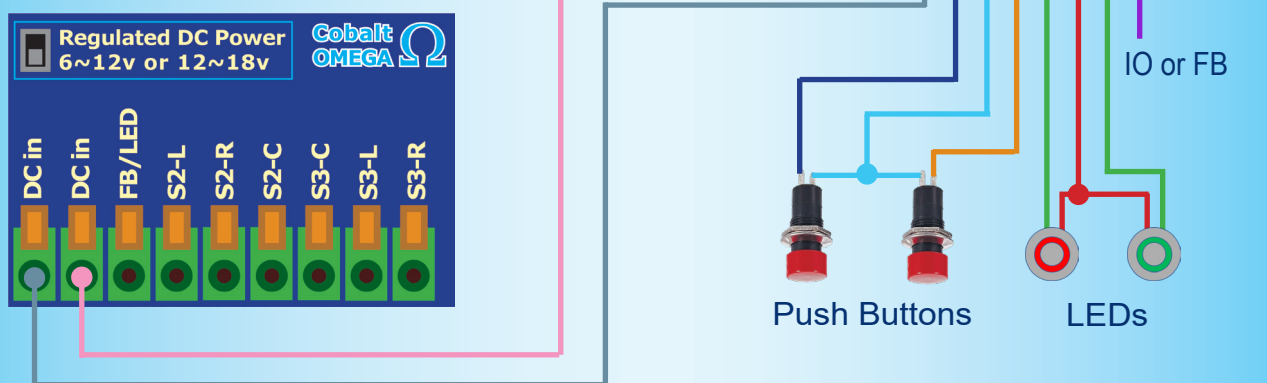
Wiring

We suggest using our dropper wire* for the **POWER IN** and output to the Cobalt motor.

*DCW-DSRED50 and six other colours.

It is always best practice to choose consistant colour codes and adhere to them (e.g. red and black for power in but pink and grey for connecting the ADfx to a Cobalt motor, etc.)

LED outputs and the push buttons can both share our 6-core DCW-6WC50 in one tidy cable.

Tip: Do not tin the wires – just strip the insulation 10mm in, twist then remove the stripped insulation.

From Track or Accessory Bus

Regulated DC Power 6~12v or 12~18v

Cobalt OMEGA Ω

IO or FB

Push Buttons   LEDs

LEDs can connect as shown but users often connect resistors in series with each LED (the green wires in the diagram) to adjust brightness. Dual colour LEDs can also be used but they must have common positive (e.g. DCCconcepts LED-RG3 or LED-RY3).

IO or FB is a 5 Volt computer IO ("in / out") or feedback output.

This can be high or low depending on which LED contacts (left or right) you pair it with.

The Cobalt ADfx decoders come with a command that centres the Cobalt motor it controls. This is evident on Power On when the motor traverses left then right before stopping at the centre of its throw.

By also centralising the turnout's tiebar, this ensures perfect symmetry when the motor is offered up to the turnout. This needs to be deactivated once installation is complete and the procedure is described on page 1. However, this built-in software structure for automatic centering can also be reactivated to make future installations easy.

Activate Self-Centering

1. Put the switch into the "SET" position.

2. Set the address to 199.

To do this, use your controller's instructions for changing a turnout.

3. Repeat twice to be sure.

4. Return the switch to the to RUN position.

5. Cycle the power off and on (physically disconnect an input lead- don't rely on a switch!)

The motor will now go to a complete throw when power is connected.

Need help?

Please email us on salesuk@dccconcepts.com, visit www.dccconcepts.com or call +44 1729 821080

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