



Instruction Manual

DCI-D01

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1. Description

- The DCI-D01 is a dual channel digital interface module designed to allow a dual axis joystick to operate two independent motor controllers.
- The DCI-D01 was designed to work with the Pro-160 / 360 and DNO series of controllers.
- It can accept inputs from potentiometers or hall effect devices.

2. Connections

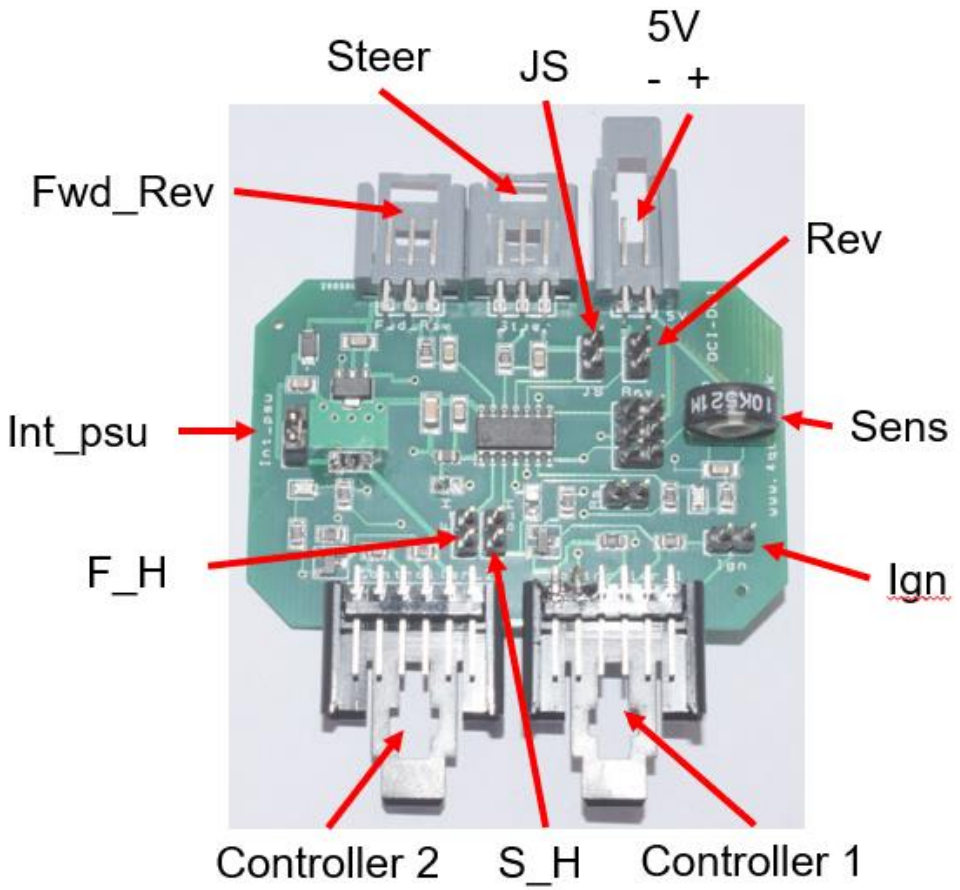
The DCI-D01 has input sockets for the following;

- **Fwd_Rev** – this socket is the input for the forward / reverse speed signal. It can be either a potentiometer [5 - 10k], or a hall effect signal [1V – 4V] as set by the F_H link.*
- **Steer** - this socket is the input for the steering signal. It can be either a potentiometer [5 - 10k], or a hall effect signal [1V – 4V] as set by the S_H link.*
- **Rev** – this connector selects reverse direction, it is only required if the DCI-D01 is operating in single ended mode in which case a switch connected across these pins will act as a reverse switch.
- **5V** – this socket is only required for systems with a battery voltage above 24V, if this socket is used then the Int_psu link **MUST** be removed.

3. Settings

The DCI-D01 has internal links and adjustments for the following;

- **JS** – if this link is present the DCI-D01 will operate with the center point of the speed input giving zero output [joystick mode]. If this link is absent the DCI-D01 will operate with one end of the speed input giving zero output [single ended mode], in this case the Rev link must be made for reverse operation.
- **F_H** – if this link is present the DCI-D01 will expect a hall effect Fwd_Rev signal [1V – 4V]. If this link is absent the DCI-D01 will expect a potentiometer input [5 - 10k].
- **S_H** - if this link is present the DCI-D01 will expect a hall effect Steer signal [1V – 4V]. If this link is absent the DCI-D01 will expect a potentiometer input [5 - 10k].
- **Int_psu** – if this link is present the DCI-D01 will use its own internal power supply. This can be used for Pro-160 / 360 or DNO systems running at voltages up to 24V. For systems above 24V this link **MUST** be removed and power provided to the 5V socket from the BEC socket on the Pro-160 / 360.
- **Ign** – This link provides the ignition line connection for both controllers. If this link is present both controllers will switch on as soon as power is applied to the system. A switch connected across these pins will act as an ignition switch for both controllers.
- **Sens** – This adjustment potentiometer controls the sensitivity of the steering input. This is set to give medium sensitivity as standard. **Note:** the sensitivity is only read when the DCI-D01 is switched on.



4. Calibration

- For the Pro series
 - Both controllers will need to have the pot learn procedure carried out as described in the relevant controller manual. Use the pot learn process to set the zero, max forward, and max reverse positions for the Fwd_Rev input. There is a detailed description of this process in the DCI-D01 section of the knowledgebase on our website.
 - Note, the controller menu setting of throttle mode / joystick should not be enabled, this is handled by the DCI-D01.

- For DNOs
 - To give full speed both DNOs will need to have their gain adjustment set to maximum [fully clockwise].
- Steering sensitivity. Once the max forward and max reverse speeds have been set, the steering sensitivity can be adjusted to give the response required.

Notes

* If the hall devices draw more than 30 mA then they may need to be powered from something other than the input ports. For the Pro series this can be the BEC socket.

5. Specification

Voltage range	5V – 24V using the internal PSU 25V - 84V using the Pro-160 / 360 BEC socket
Control input	Potentiometer [5k – 10k] 5v Hall effect device [1V – 4V]
Output	0.2V – 4.8V