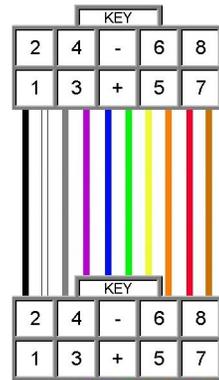


Input Connector Pin Identification

The port connector wiring is as follows.

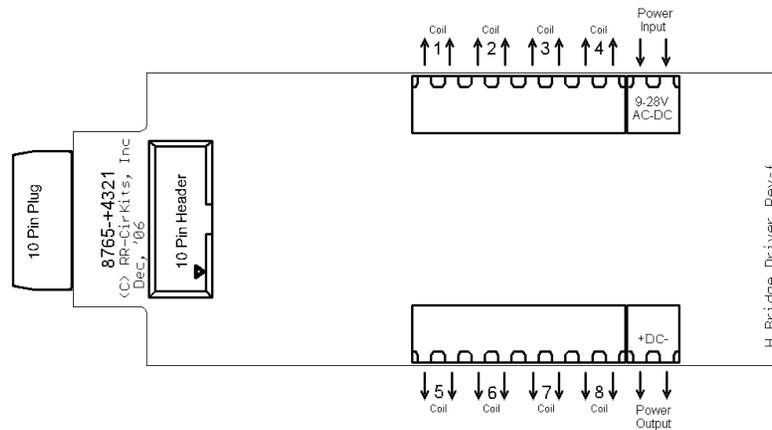
Pin number	Connection
1	h (8)
2	g (7)
3	f (6)
4	e (5)
5	Ground
6	+5VDC
7	d (4)
8	c (3)
9	b (2)
10	a (1)



10 position IDC connector

Output Connection Identification

The Output terminal strip wiring is shown below.



Power Connections

To supply power for the outputs connect AC or DC to the power input terminal strip. Early versions of this board included a coaxial power jack as an optional power input point. Match the input voltage to that required by your loads. For example a 9 volt supply works well for Tortoise machines. 12 or 24 volts might be required for relays or incandescent lamps.

RR-CirKits Contact Information

RR-CirKits, Inc.
7918 Royal Ct.
Waxhaw, NC USA 28173

<http://www.rr-cirkits.com>
sales@rr-cirkits.com
service@rr-cirkits.com
1-704-843-3769
Fax: 1-704-243-4310

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RR-CirKits

Specializing in Affordable Electronics for Model Railroads

DCDB-8 8 output "H" bridge driver

User's Guide

Daughter Cards

All RR-CirKits Tower Controller daughter cards are designed to either be plugged directly into the TC-64, or else mounted in Tyco 3-1/4" Snap-Track® mounted to the bench work and connected with short ribbon cables. (Snap-Track® is a plastic channel designed to mount PC cards to a chassis, not something to run trains on.) Each daughter card is equipped with two connectors to facilitate these connection options.



DCDB-8 (Direct Current Driver Board - 8 line)

The DCDB-8 driver board contains 8 individual, optically isolated, H-Bridge drivers. This allows the board outputs to be powered from any supply between 8 Volts and 28Volts. It is primarily designed to drive small DC motors. Do not exceed 24VAC or 36VDC at the power input. This board includes an on-board 5V switching

regulator to allow safe operation at high voltages. The regulator will draw 50-100ma. plus your load current, and normally runs warm even with no load.

The DCDB-8 drivers include clamp diodes and may be used to directly drive inductive loads such as relay or solenoid coils if desired. The outputs are wired in an "H" bridge configuration but may be used single ended. Both positive and negative common return points are provided for single ended operation.

The DCDB-8 outputs are rated at 600ma. per line, not to exceed 1.2A peak for 100µs non repetitive. The board includes an auto reset fuse that will prevent extended operation in excess of 1A total continuous output current per board, but it will NOT protect it from direct short circuit currents. Short circuits on any output line may destroy the board, so be careful of your wiring.

The DCDB-8 input lines are active low so the TC-64 should be configured as "Driver" for each port that is connected to a DCDB-8. This inverted input mode matches most types of driver outputs, and the drive polarity may be easily switched either in the TC-64 setup or by reversing the DCDB-8 output lines.

Connections

There are three inputs and three output strips on the DCDB-8 board. The first two input connections are the standard TC-64 10 pin cable connections shared by all Tower Controller daughter cards. Both a male and female connector are provided, and either may be used as required. The 3rd input is +8 to +28V power.