

Classic Organ Works

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OUTP-1 Magnet Driver Board



Description

The Classic Output Driver Board (OUTP-1) accepts standard Classic serial data and uses it to turn the appropriate output pins on or off for applications such as the magnets of a rank of organ pipes.

The board has 48 positive-going outputs for active-high (0V common) relays and pipe chest magnets and is intended to be used in the CCU and PCU units ('Grey Boxes') as well as the MCU-1. Boards can be cascaded for more than 48 outputs.

It can drive a pipe magnet of 60 Ohms minimum (steady state) or a stop-action magnet with a resistance of no less than 30 Ohms (if pulsed).

All output devices are protected against reversed back-emf voltages from inductive loads by built-in diodes.

A Fault-indicating LED operates if any output becomes shorted.

A large capacitor on the supply line permits high-current pulsed loads when all outputs may be activated together.

Supply voltage range is +7V to +35V, nominally +12V.

Features

- Active-high drive outputs.
- 48 protected outputs can drive magnets, relays, motors, solenoids, LEDs and incandescent lamps (or a mix of them all).
- Output loads 60 Ohms minimum. (30 Ohms if pulsed).
- Built-in diodes protect outputs from inductive back-emf.
- Two 'Stop On' LEDs and a 'Fault' LED.
- Approximate dimensions:
10.15" x 1.85" x 0.6" (w x h x d)

Applications

While the MIDI Output Board is intended to be used by organ-builders, it can also be used to operate incandescent lamps, LEDs, drive motors and solenoids for other applications such as model railroad systems.

Organ-builders typically use the OUTN-1 Board in a packaged system (PCU) to drive a rank of wind-blown pipes.