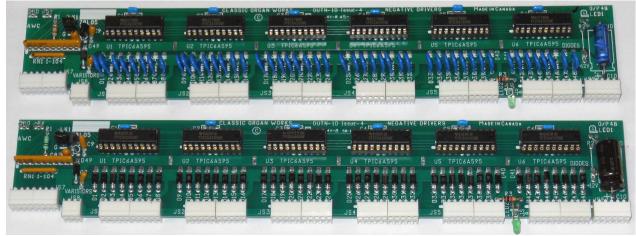
# Classic Organ Works

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# **SAMDB-3 Magnet Driver Board**



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## **Description**

The Classic Magnet Driver Board (SAMDB-3) accepts standard Classic serial data and uses it to turn the appropriate output pins on or off for applications such as stop magnets or the magnets of a rank of organ pipes. It is a drop-in replacement for the SAMDB-2A and uses surface-mount components.

The board has up to 96 active-low outputs for (positive common) relays and pipe chest magnets and is intended to be used in discrete systems.

It can drive any kind of stop-action magnet with a resistance of as low as 17 Ohms (when pulsed) or a pipe magnet of 35 Ohms minimum steady state.

All output devices are protected against reversed back-emf voltages from inductive loads by using diodes. Boards with diodes would be used for stop-action magnets where speed is not too important. Varistors can be substituted on pipe drivers if they are required to be faster.

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

Supply voltage range +7V to +18V, nominally +12V.

#### **Features**

- Unbalanced Serial or balanced RS422 inputs.
- Active-low drive outputs (Positive Common).
- 96 protected outputs can drive magnets, relays, motors, solenoids, LEDs and incandescent lamps (or a mix of them all).
- Output loads 35 Ohms minimum. (17 Ohms if pulsed).
- Diodes protect outputs from inductive backemf.
- Choice of four 'Stop On' LED outputs.
- Surface-mount technology.
- Approximate dimensions:
  15.70" x 4.15" x 1.00" (w x h x d)

### **Applications**

While the Magnet Driver 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 SAMDB-3 Board fitted with diodes to operate stop-action magnets on a console. Or it can drive pipe magnets.