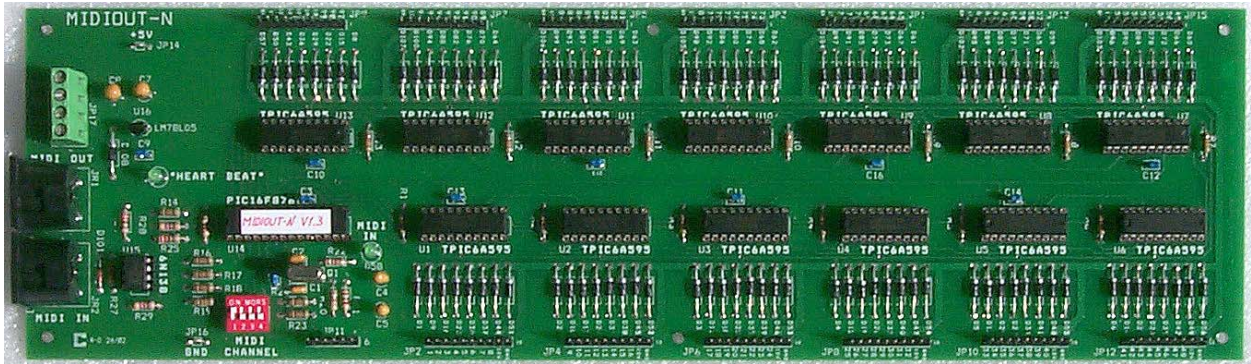


# MIDI OUTPUT BOARD

## MIDIOUT-N



### General

The Classic MIDI Output Board may be used as a pipe driver to allow connection of wind blown pipes to an electronic organ. Outputs are capable of driving relays or pipe chest magnets requiring up to 0.35A at 35V. This MIDI product allows up to 104 individual pin outputs to be activated and deactivated through standard MIDI Note On and Note Off messages.

### Brief Description

The MIDIOUT-N unit consists of a single printed board.

Output connectors may be made with pluggable headers using crimped pins (Molex) or mass-termination insulation-displacement connectors (MAS-CON).

Standard 5-pin DIN connectors are used for MIDI input and output.

Several MIDIOUT-N boards may be cascaded to drive more than 104 outputs as each may have a unique channel number.

### Principal Features

- 104 outputs, which can drive relays, motors, solenoids, LEDs, and incandescent lamps.
- All outputs are with over-current protection, include output transient protection/clamp diodes for use with sustaining voltages to 35V.
- MIDI input and MIDI outputs allow cascading several MIDIOUT-N boards.
- Two light diodes to indicate working status of board.
- MIDI Channel set by DIP-Switch.

### MIDI Features

Any output pin of board should be On or OFF by sending MIDI Note On and Note Off messages. Output "ON" mean that it has sink current capability. Output 1 was corresponded to key number 24, output 2 to key number 25 and so on until output 104 (key number 127).

## Unit Configuration

A 4-section DIP-Switch allows the MIDIOUT-N to be set on any one of sixteen channels.

## Power Supply

Power for MIDIOUT-N can be from any standard DC supply providing between +7 and +35 Volts at a minimum current of 50 mA.

# SPECIFICATIONS

## Dimensions

Width	14.0 inches, 35.56 cm
Height	4.00 inches, 10.16 cm
Depth	1.00 inches, 2.54 cm

## Installation:

Mounting	Should be spaced away from any woodwork or other panels. No special ventilation necessary if mounted clear of obstructions.
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## Controls

Configuration	4-section DIP-Switch to select input channel (1-16).
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## Connections:

### Inputs:

MIDI	DIN 5-pin Socket. Standard MIDI signals, optically isolated.
Power	+7..+35V, 50mA. 4 ways Terminal Block

### Outputs:

MIDI	DIN 5-pin Socket. Standard MIDI signals.
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### Drive Outputs

Outputs have continuous sink current capability up to 350mA.  
13 groups of 10 pins (8 pins – Drive Outputs Pins, 1 – Ground pin, 1 – Power Pin),  
0.025” Square, 0.3” long, 0.1” pitch (for 8-pin Molex or MAS-CON connectors)

## MIDIOUT-N MIDI PARAMETERS

FUNCTION	TRANSMITTED	RECOGNIZED	COMMENTS
Channel 1-16	Yes ( <i>Note 1</i> )	Yes ( <i>Note 2</i> )	Key On/Off Data
Mode	Mode 3	Mode 3	OMNI OFF, POLY
Note Number	0-127( <i>Note 1</i> )	24-127	
System Exclusive	Yes	Yes	<i>Note 4</i>
System Common	Yes ( <i>Note 1</i> )	Yes ( <i>Note 1</i> )	
System Real Time Clock Start Stop System Reset	Yes ( <i>Note 1</i> )	Yes ( <i>Note 1</i> ) No No No Yes ( <i>Note 1</i> )	
All notes off	Yes ( <i>Note 1</i> )	Yes ( <i>Note 1</i> )	

*Notes:*

1. *All MIDI data received on MIDI-In is re-transmitted on MIDI-Out.*
2. *Note data is recognised on whichever channel is active. Default channel is set by DIPSW.*
3. *Program Change messages may be sent on the currently-active channel or on Channel 16.*
4. *SysEx messages received in MIDI-In will be re-transmitted on MIDI-Out.*