

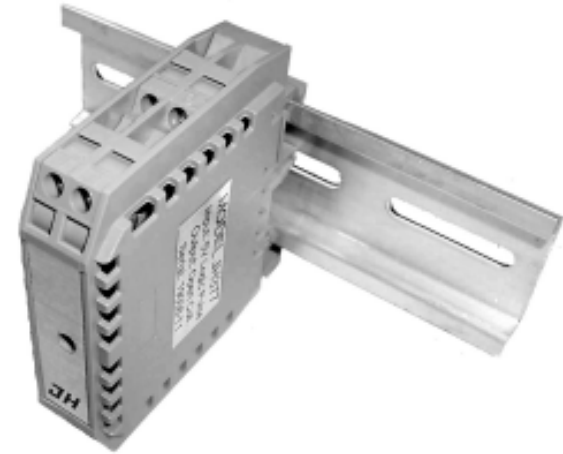
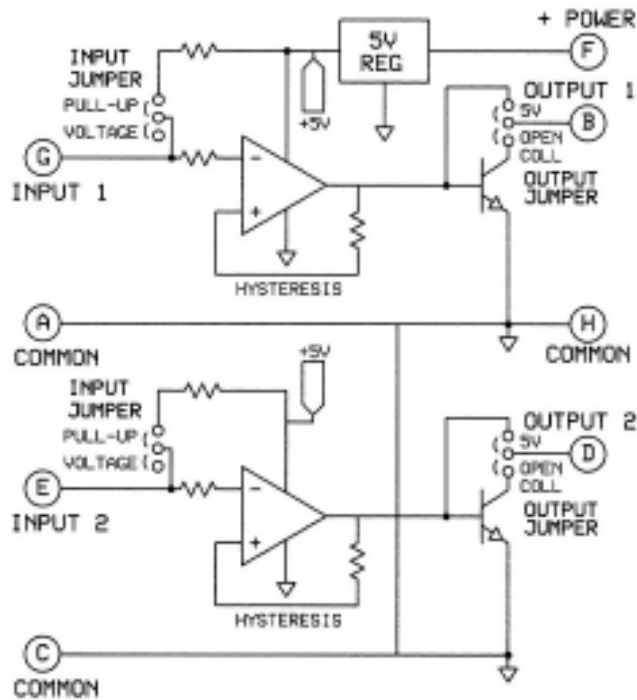
## APPLICATION HINT

The JH377 inverts; that is, each output goes LOW when its input goes HIGH.

When needed, noninverting operation can be provided by cascading the two channels. Connect Output 1 to Input 2. Set the Channel 1 Output Jumper (JU1) to 5V Pulse (Position A) and the Channel 2 Input Jumper (JU3) to 5V Pulse (Position A).

When set up this way the JH377 serves only one channel, not two. Connect your input to Input 1 and your output to Output 2.

## BLOCK DIAGRAM



## 2-CHANNEL LOGIC PULSE CONVERTER Converts 5V Pulses to Open Collector, or Open Collector to 5V

Model JH377 is a compact 2-channel pulse in, pulse out logic converter. Its input accepts 5 volt (TTL compatible) or open-collector logic input pulses (jumper selectable). The output, also jumper selectable, produces either 5 volt or open-collector output pulses in response. DC input coupling (no capacitor) permits operation down to zero Hz. For low level input such as tachometer pickups see our companion product, Model JH376.

Two identical channels are provided. The DC power source may be anywhere between 7 and 24Vdc. A green LED indicates power.

There is no circuit isolation. Input, output and power commons are internally connected.

## SEVEN-YEAR WARRANTY

The JH377 will be replaced free if it fails due to defects in materials or workmanship within seven years of the date shipped.

01/2011

---

---

## **JH TECHNOLOGY, INC.**

Sarasota, FL USA  
(800) 808-0300 or (941) 927-0300  
Fax: (941) 925-8774  
[www.jhtechnology.com](http://www.jhtechnology.com)

## INSTALLATION & CONNECTIONS

JH377 snaps onto DIN rail. Its terminals are designated by letters molded into the enclosure. Terminals A, B, C and D are on the top edge when mounted on DIN-rail. E, F, G and H are on the bottom.

Connections are as follows. You may also refer to the block diagram on the last page.

<b>Terminal B:</b>	Output 1.
<b>Terminal D:</b>	Output 2.
<b>Terminal E:</b>	Input 2.
<b>Terminal F:</b>	+ Power.
<b>Terminal G:</b>	Input 1.
<b>Terminals A, C &amp; H:</b>	Common.

The three common terminals are internally connected. Use them for the minus (-) power connection, input commons and, when using 5 volt logic outputs, output commons. With open-collector outputs there is no output “common” – the output loads connect between the positive supply and the output terminals.

## INPUT & OUTPUT OPTION JUMPERS

Internal jumpers provide the following options:

Input Style:

- 5 volt logic input pulses.
- Internal pull-up resistor for open collector or contact closure inputs.

Output Style:

- Open collector outputs.
- 5 volt logic pulse (TTL style) outputs.

The jumpers are factory-set to whichever choices are ordered but are easily changed.

To change the jumpers, first pry off the left cover (the cover with the JH Technology logo sticker). Use a small screwdriver or other tool. Set the jumpers as follows:

Channel 1 Input - Jumper JU1:

Position A = 5V Pulse Input. Position B = Internal Pull-up Resistor.

Channel 1 Output - Jumper JU2:

Position A = 5V Logic Pulse Output. Position B = Open Collector Output.

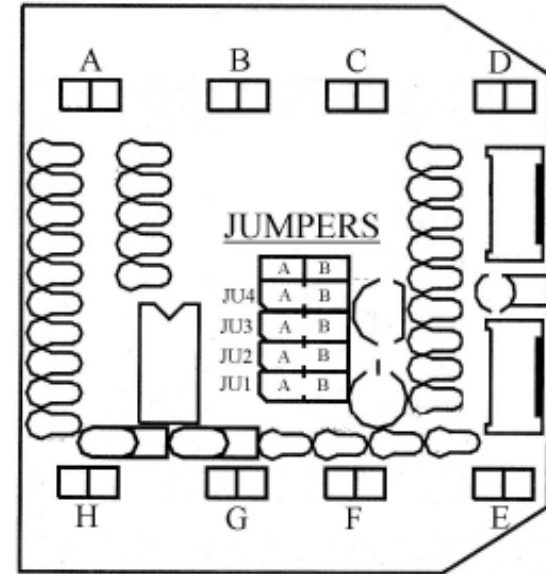
Channel 2 Input - Jumper JU3:

Position A = 5V Pulse Input. Position B = Internal Pull-Up Resistor.

Channel 2 Output - Jumper JU4:

Position A = 5V Logic Pulse Output. Position B = Open Collector Output.

*CAUTION: NEVER connect pull-up resistors to the output when the amplifier is set for 5 volt logic outputs. Doing so will damage or destroy the amplifier and, possibly, whatever it is connected to.*



## SPECIFICATIONS

### Inputs (jumper-selectable):

- 5 volt logic (TTL compatible): 10K input resistance.
- Pull-up resistor: 10K to +5 volts.

### Outputs (jumper-selectable):

- 5 volt logic pulses: 500 ohm or greater load resistance. Output is LOW when input is HIGH.
- Open collector, NPN: +30V max., 40mA max. load current. “On” voltage drop at 40mA is 1 volt or less. Output is OFF when input is HIGH.

### Frequency Response:

0-100kHz.

### Input & Output Jumpers:

Circuit board jumpers select the input and output styles. Snap off left cover for access.

### Power Requirements:

7Vdc min., 24Vdc max. 10mA quiescent current.

### Operating Temperature:

-40 to +80°C (-40 to +176°F)

### Dimensions:

2.47 in. high, 2.52 deep, 0.70 wide (63 x 64 x 18 mm)