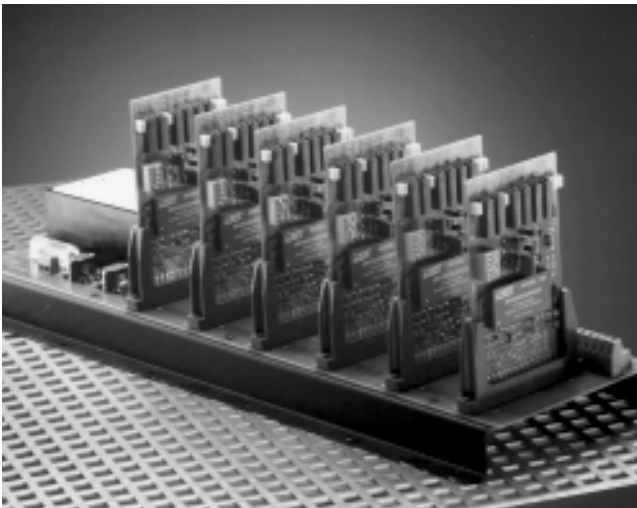


# Model 8600 Backplane



### Features

- Six printed circuit card edge connectors
- 15 pin with 0.156" pin spacing
- AC or DC operation
- Screw clamp terminal blocks
- On board noise filters

### Description

The CALEX Model 8600 Backplane is a convenient mounting system for up to six CALEX signal conditioners, alarms and/or controls. The Backplane measures 5¾" x 16½". All connections are easily made with a screwdriver. The screw terminal blocks will accept AWG wire sizes 22 to 16.

The 8600 board is available with either an AC line or a DC input power supply. The AC line model is available with either 100,115,220,230,or 240 Volt 50/60 Hz input. The DC option is available for 10 to 36 Volts DC input or 24 to 72 Volts DC. For noise suppression, power supply input and output common mode choke filters are on the 8600DC models and a common mode choke filter is on the output of the 8600AC models.

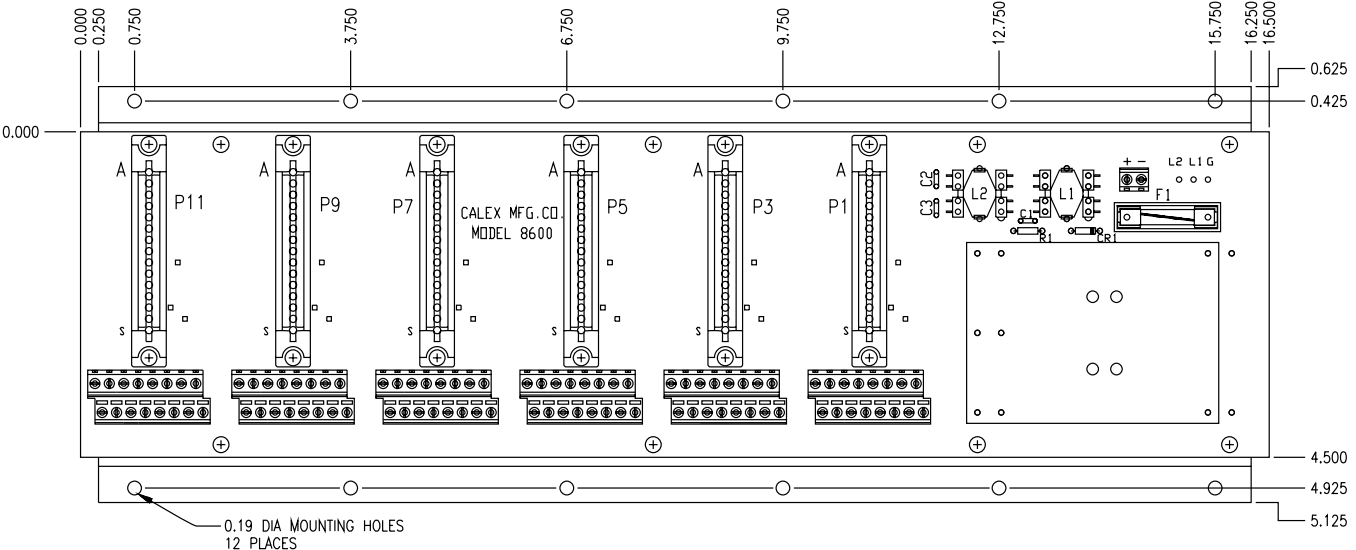


FIGURE 1.

Notes: Unless Otherwise Specified

1. This drawing is a dimensional reference document to be used as an aid for locating mounting holes.
2. Mounting Rail is 0.050 thick.

# Model 8600 Backplane

## Specifications

Model	8600DC-24	8600DC-48	8600AC-115	8600AC-230
Input Range	10-36VDC	24-72VDC	115VAC	230VAC
Power Supply	24D15.400	48D15.400	2.15.350-115	2.15.350-230
Frequency			50/60 Hz	50/60 Hz
Temperature	Operating 0° to +55°C			
Size	5.75" x 16.5" Height 6.0" Max.			
Weight	1 lb 6 oz.	1 lb 6 oz.	2 lb. 6 oz.	2 lb. 6 oz.

Note: State the desired input voltage range when ordering.

## DC Operation

The DC input modules use a CALEX DC/DC converter to provide the ±15 Volt power for all six channels. The input power supply negative lead is tied to the 8600 ±15 Volt common bus through a 1 megohm resistor and a 0.1 µF/100V capacitor. Input and output common mode filters are provided on the board to limit high frequency noise. The positive input is fused with a slow blow fuse and has a series diode to prevent damage from reverse polarity.

The 8600 Backplane is designed to be used with the CALEX Mounting Kits listed in Figure 3. Up to 6 units will not fully load the DC/DC converter.

Below 10 Volts input, the converter will continue to operate and the input current will rise above 1 Amp before the current begins to decrease. See the 24D INPUT CURRENT Vs. LINE INPUT (Figure 2). Note from the curves that it is possible for an under rated input power source to lock up at a voltage too low to operate the DC/DC converter. Also note that the series diode is rated for 1.5 Ampere and that a fully loaded 24D15.400 will draw close to 2.5 Amp as the input voltage drops below 10 Volts. Hence operation at full load and low line should be avoided.

The input power source can have 120 Hz ripple up to 1 Volt peak to peak at 10 Volts and 2 Volts peak to peak above 12 Volts input.

The 8600 is available with a 48D15.400 converter which operates from 24 to 72 Volts input. The input currents will be proportionally less. See the 48D INPUT CURRENT Vs. LINE INPUT (Figure 2).

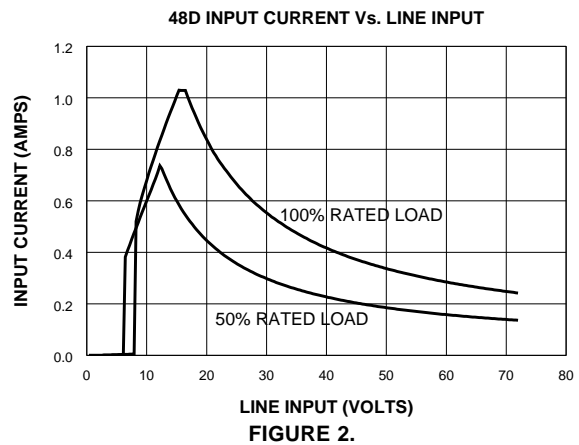
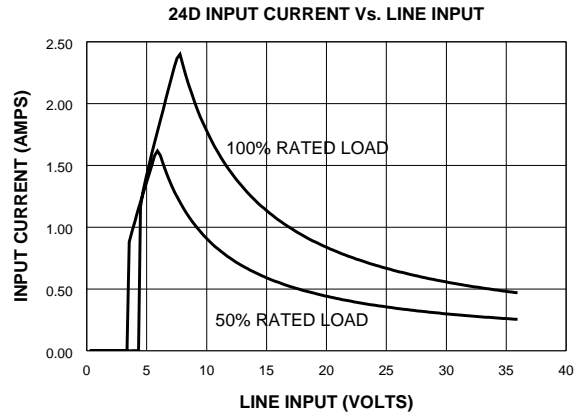


FIGURE 2.

## Wiring Tips

Two terminals on each screw terminal block are tied to the common bus for connecting to shields or other points that must be connected to signal common. The positive 15 Volt supply is tied to pin A on all 6 card connectors. The power supply common, which is also the signal common, is connected to pin B. The negative 15 Volt supply is brought out to the screw terminal block where it must be connected to either pin C or pin E at the screw terminal block when using the Model 8600 with CALEX Instrumentation Modules.

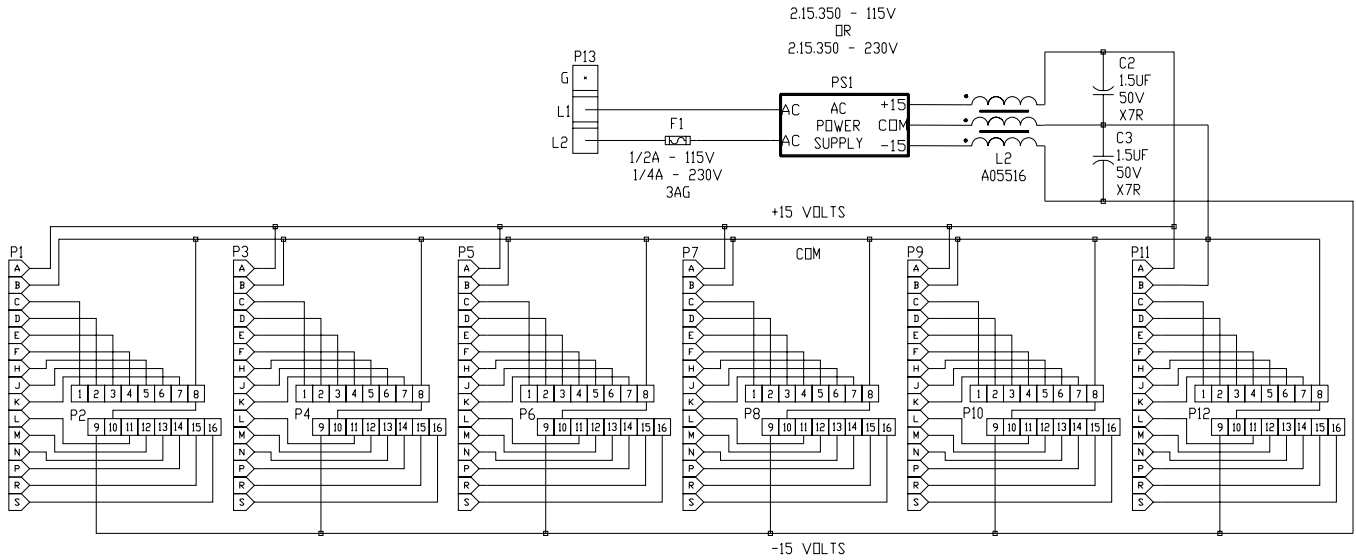
This connection must be made for each printed circuit edge connector. Use a short length of AWG 22 stranded wire to connect the -15 Volt bus to pin 'C' or 'E' according to the following table:

Model	-15 Volt to Pin	Height Above Board
162MK	E	4.2"
MK216/217/218	C	2.2"/2.9"/3.5"
MK276	C	3.7"
MK278	C	3.7"
MK296	Not Used	3.1"
MK298	Not Used	2.6"
MK376/377/378/379	C	3.8"/3.8"/5.0"/5.0"

FIGURE 3.

# Model 8600 Backplane

## 8600 Backplane Schematic with AC Power Supply



## 8600 Backplane Schematic with DC Power Supply

