

# PCM2

## AC/DC Power Control Module

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The AC/DC Power Control Module is a general purpose control subsystem for the sensing and control of power AC and DC devices. Ideal for demanding control applications in scientific and industrial automation systems, the PCM2 permits the direct interface of relays, heaters, motors, actuators, and a wide variety of AC and DC devices-over the full range of voltages from 10 to 280V. The system is fully optoisolated and protected. All connections are made to high-current screw terminals, and the relays are industry standard, plug-in, solid state elements, so the system is readily reconfigurable as the application requires.

The PCM2 consists of two elements: the PCM2 interface card, which plugs into the Series 500 baseboard, and a remote unit, which keeps potentially hazardous and noisy currents outside the system environment. The remote assembly can be mounted in a variety of positions.

The PCM2 provides up to 16 channels of power interface. Each channel can be configured with plug in relays to DC input, DC output, AC input, or AC output. Each channel is short-circuit protected with plug-in fuses, and isolated to 1000V AC. Control channels can switch up to 3A. LED indicators are provided on the remote unit to indicate channel status.

The PCM2 interface board may be installed in any available slot. A ribbon cable is used to connect the remote board to the interface board. To connect each end, line up the arrows and slide the connection into place.

**WARNING:** The remote unit should not be handled unless all power to external circuits has been disconnected. For maximum safety, mount the remote unit in an enclosure.

**CAUTION:** Always turn off the power before installing or removing modules. To minimize the possibility of EMI radiation, never operate the system with the top cover removed.

### User-Configured Components

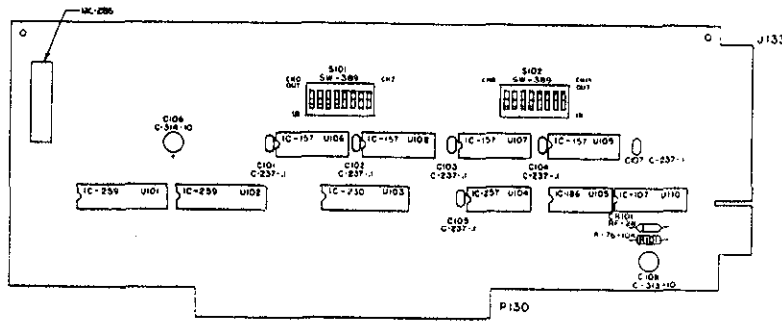
The PCM2 has provisions for 16 channels of plug-in relays. Four relay types can be accommodated: the AC input relay, the DC input relay, the AC output relay, and the DC output relay. Any relay type can be installed in any position, and input and output relays can be intermixed within ports in any manner.

Each channel is interfaced with two screw terminals on the remote unit.

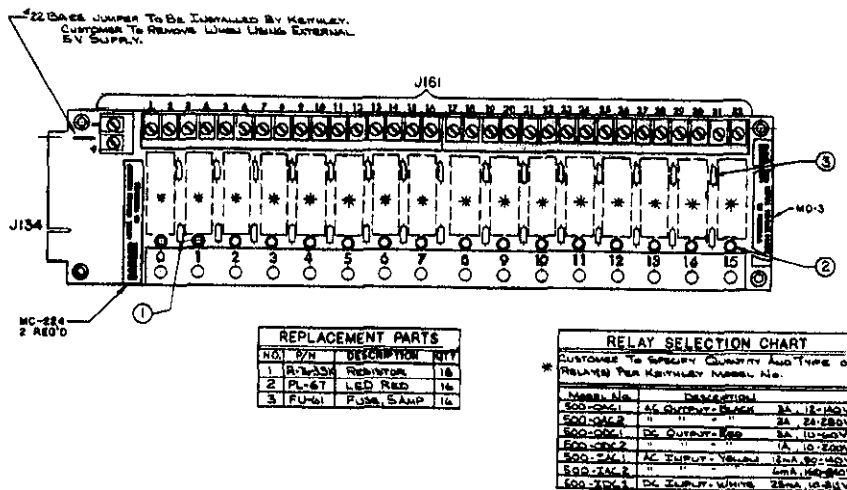
Switch sets S101 and S102 select whether a particular channel is set up for input or output. When a switch is closed, that channel is set up for output; when the switch is open, the channel is configured as an input. Channel numbers are marked on the board. See Table 1 for user configured components on the PCM module.

**Table 1. User-Configured Components on the PCM2 Interface Board and Remote Card**

Name	Designation	Function
Screw Terminals	J161	Screw Terminals for connection of AC/DC input/output channels (32 terminals)
Screw Terminals	+ -	External +5V power source connection (2 terminals)
Switch Sets	S101, S102	Select input/output
Cable 1	CB1	Linking cable between the module and the remote assembly (50 pin)
Fuses	See Figure 2	Per channel current limit plug-in wire fuses, 5A
Relays	See Figure 2	Plug-in modular relays
Jumper	See Figure 2	+5 Power jumper

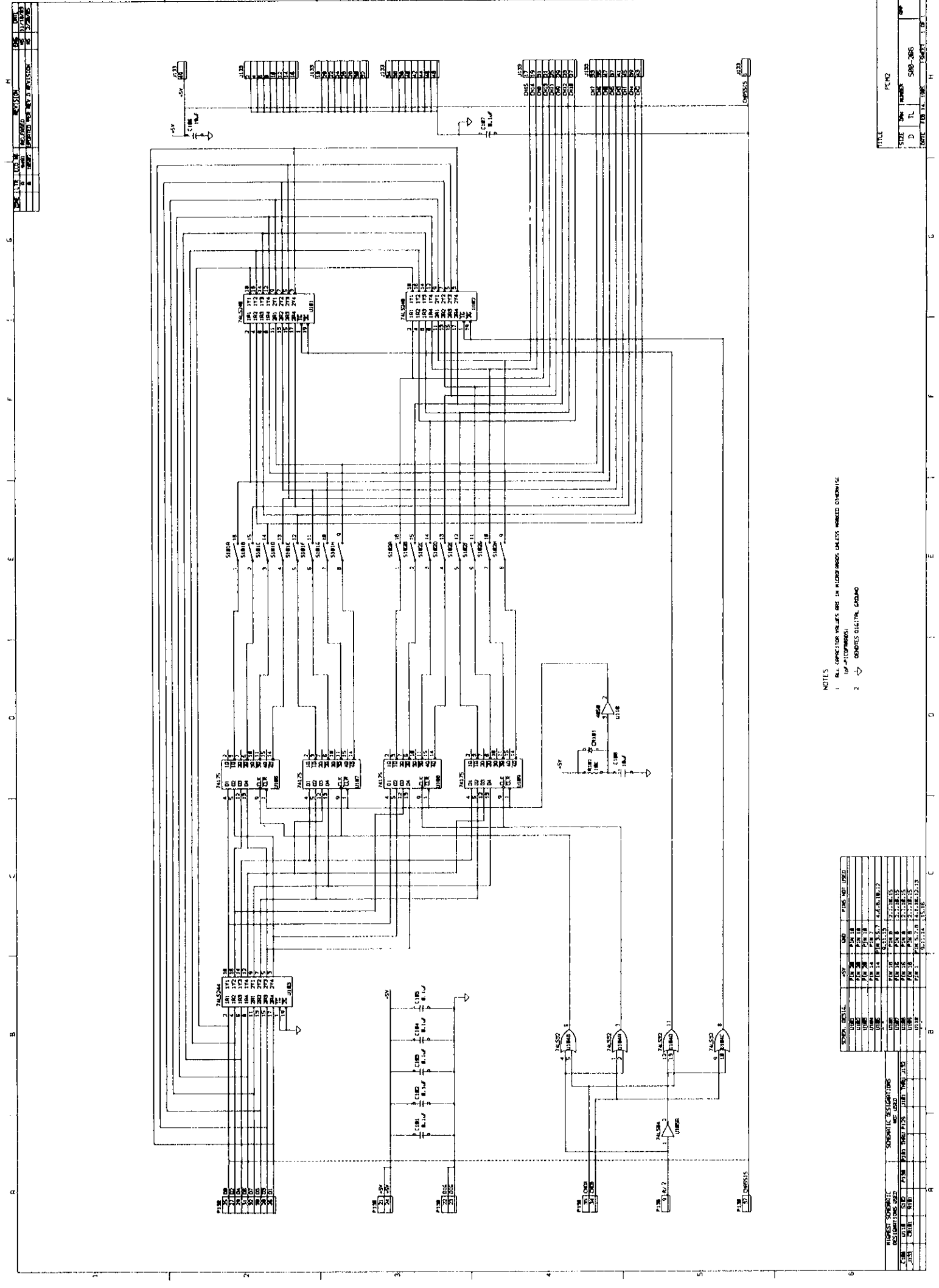


**Figure 1. PCM2 Interface Board**



**Figure 2. PCM2 Remote Card**





REV.	DATE	BY	CHKD.	DESCRIPTION
1				ISSUED FOR CONSTRUCTION

NOTES  
 1. ALL CONNECTION VALUES ARE IN MICROGRAMS UNLESS INDICATED OTHERWISE  
 2. IDENTIFY ELECTR. CIRCUIT

REF. DES.	QTY	VAL.	REF. DES.	QTY	VAL.
74181	18	74181	74181	18	74181
74180	18	74180	74180	18	74180
74182	18	74182	74182	18	74182
74183	18	74183	74183	18	74183
74184	18	74184	74184	18	74184
74185	18	74185	74185	18	74185
74186	18	74186	74186	18	74186
74187	18	74187	74187	18	74187
74188	18	74188	74188	18	74188
74189	18	74189	74189	18	74189
74190	18	74190	74190	18	74190
74191	18	74191	74191	18	74191
74192	18	74192	74192	18	74192
74193	18	74193	74193	18	74193
74194	18	74194	74194	18	74194
74195	18	74195	74195	18	74195
74196	18	74196	74196	18	74196
74197	18	74197	74197	18	74197
74198	18	74198	74198	18	74198
74199	18	74199	74199	18	74199

REF. DES.	QTY	VAL.	REF. DES.	QTY	VAL.
74181	18	74181	74181	18	74181
74180	18	74180	74180	18	74180
74182	18	74182	74182	18	74182
74183	18	74183	74183	18	74183
74184	18	74184	74184	18	74184
74185	18	74185	74185	18	74185
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74187	18	74187	74187	18	74187
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74195	18	74195	74195	18	74195
74196	18	74196	74196	18	74196
74197	18	74197	74197	18	74197
74198	18	74198	74198	18	74198
74199	18	74199	74199	18	74199

TITLE	
PCMC2	
DATE	1968 FEB 11 10:08
DESIGNER	580-286
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