

# OPERATIONS MANUAL

## PCM-DC/DC

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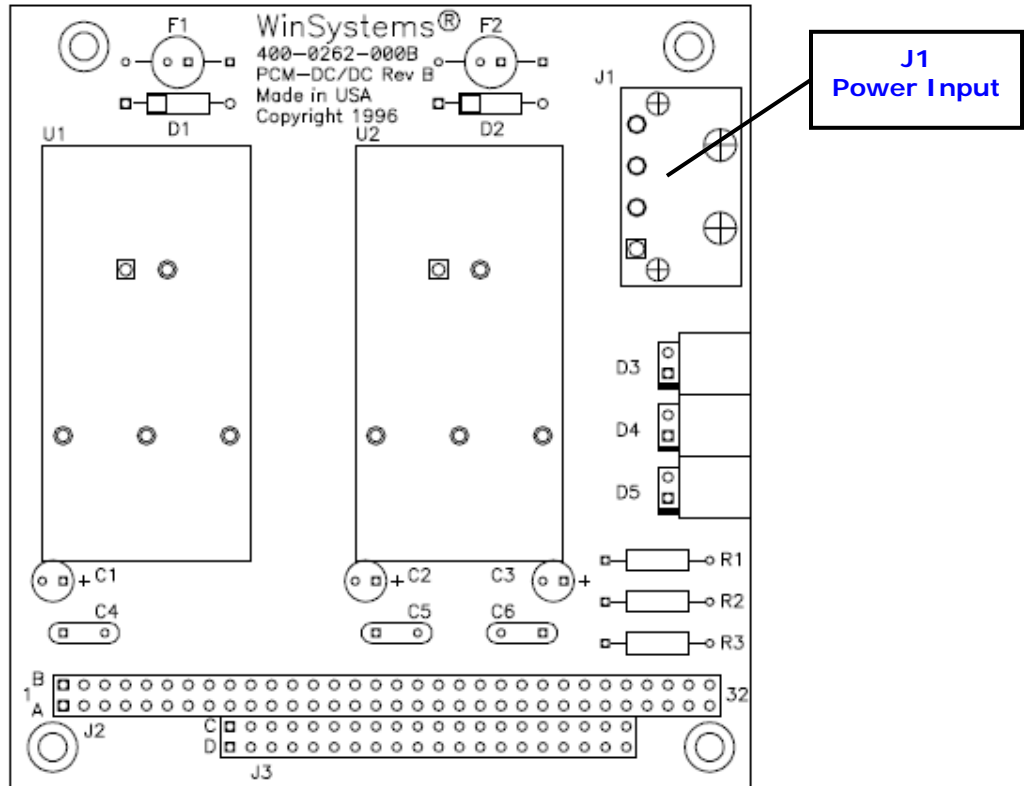
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## Visual Index – Quick Reference

For the convenience of the user, a copy of the Visual Index has been provided with direct links to connector and jumper configuration data.



## **General Information**

### **Features**

- PC/104 Bus DC/DC power supply
- Wide input ranges for nominal 12V, 24V, and 48V inputs
- Input polarity reversal protection
- Fused input line
- Triple output voltages of +5, +12, and -12 volts
- Voltage status LEDs
- Output short circuit protection
- Wide operating temperature range

### **General Information**

The PCM-DC/DC is available in a variety of models ranging from single 5 volt models to triple voltage output models including +12V and -12V. Each of these models provides input reverse polarity protection and fused inputs. The outputs are short circuit protected and provide full regulation with no minimum load requirement. The specifications regarding input voltage range, output voltages and currents, as well as noise and temperature ranges are included in the following section.

# Specifications

## Electrical

DC/DC Product Number	Input Voltage Range	Output Power			Temperature Range	Noise (P-P max ripple)
		+5VDC	+12VDC	-12VDC		
PCM-DC/DC-12-500	9V to 36VDC	2.0A	N/A	N/A	-40°C to +85°C	75mV
PCM-DC/DC-12-512	9V to 36VDC	2.0A	416ma	416ma	-40°C to +85°C	75mV
PCM-DC/DC-48-500	18V to 75VDC	2.0A	N/A	N/A	-40°C to +85°C	75mV
PCM-DC/DC-48-512	18V to 75VDC	2.0A	416ma	416ma	-40°C to +85°C	75mV
PCM-DC/DC-12-500-3	9V to 18VDC	3.0A	N/A	N/A	-25°C to +71°C	5V=100mV, 12V=75mV
PCM-DC/DC-12-512-3	9V to 18VDC	3.0A	416ma	416ma	-25°C to +71°C	5V=100mV, 12V=75mV
PCM-DC/DC-24-500-3	18V to 36VDC	3.0A	N/A	N/A	-25°C to +71°C	5V=100mV, 12V=75mV
PCM-DC/DC-24-512-3	18V to 36VDC	3.0A	416ma	416ma	-25°C to +71°C	5V=100mV, 12V=75mV
PCM-DC/DC-48-500-3	36V to 75VDC	3.0A	N/A	N/A	-40°C to +85°C	75mV
PCM-DC/DC-48-512-3	36V to 75VDC	3.0A	416ma	416ma	-40°C to +85°C	75mV
ADP-DC/DC-48-500-3	36V to 75VDC	3.0A	N/A	N/A	-40°C to +85°C	75mV
ADP-DC/DC-48-512-3	36V to 75VDC	3.0A	416ma	416ma	-40°C to +85°C	75mV

## Mechanical

Dimensions : 3.6" X 3.8" X .06"  
 PC Board : FR4 Epoxy Glass with 2 signal layers, plated through holes and screened component legend  
 Connectors : Power Input, 4-pin AMP

## Environmental

Operating Temperature : refer to Electrical Chart  
 Vibration : 2.5G RMS 5Hz to 500Hz

# PCM-DC/DC Technical Reference

## Introduction

This manual is intended to provide the necessary information regarding configuration and usage of the PCM-DC/DC board. WinSystems maintains a Technical Support Group to help answer questions regarding usage, or programming of the board. For answers to questions not adequately addressed in this manual, contact Technical Support at (817) 274-7553 between 8AM and 5PM Central Time.

## Power Input

Power is applied via the AMP connector at J1. The PCM-DC/DC supports a wide input voltage range as shown table located in the [Specification – Electrical](#) in this manual.

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<b>J1</b>	4 o	N/C
	3 o	GND
	2 o	GND
	1 o	INPUT

## Power Output

Power is supplied to the PC/104 BUS connectors J2 and J3 per the following:

+5V to J2 @ B3 and B29  
+5V to J3 @ D16

+12V to J2 @ B9 (PCM-DC/DC-XXX-512 only)  
- 12V to J2 @ B7 (PCM-DC/DC-XXX-512 only)

GND to J2 @ B1, B10, B31, B32 and A32  
GND to J3 @ C0, D0, D18 and D19

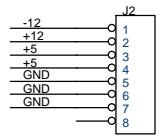
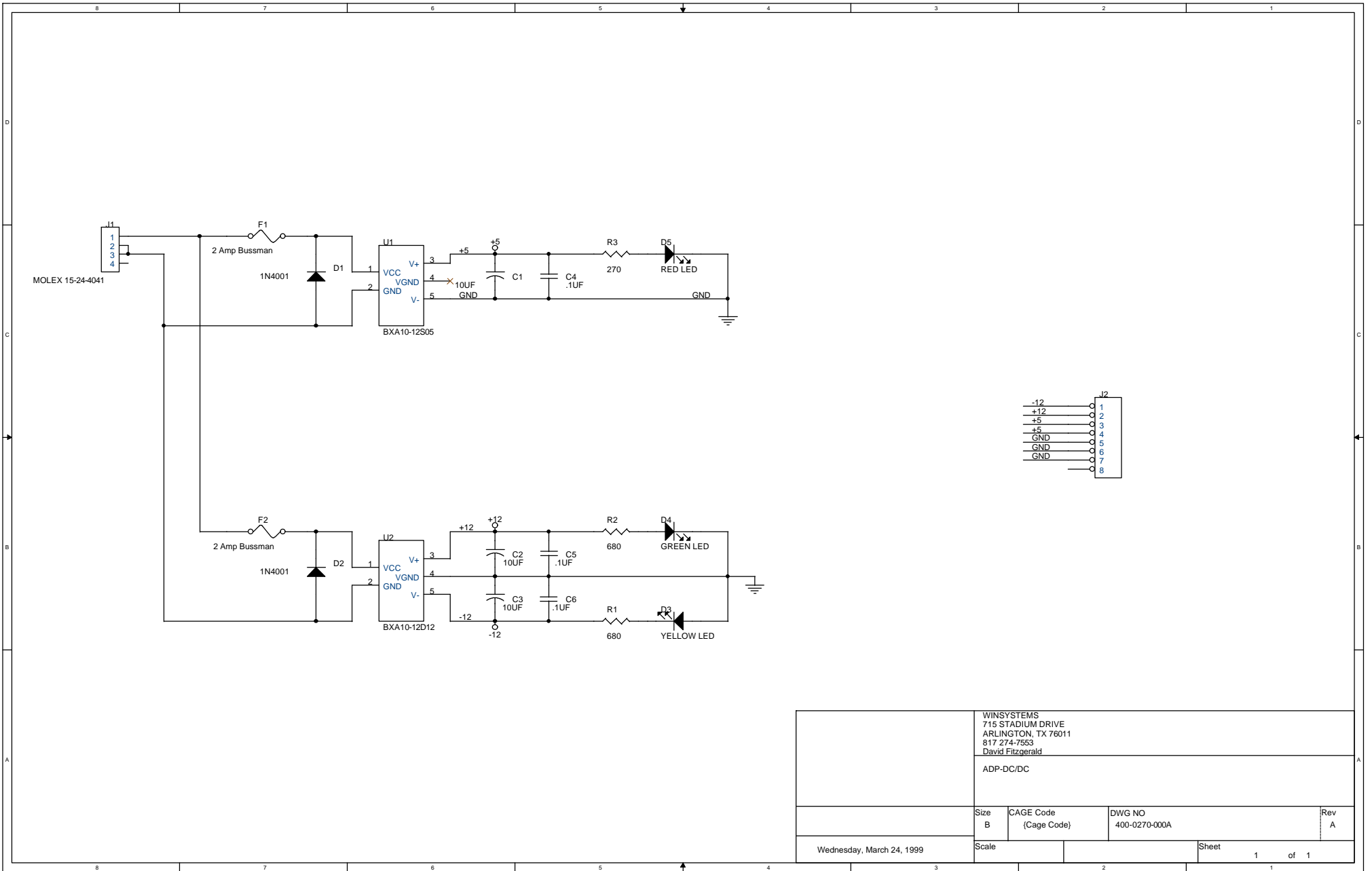
## Status LEDs

Three status LEDs are present on the part to indicate the presences of the output voltages. The LED representations are:

RED	+5 volts
GREEN	+12 volts
YELLOW	- 12 volts

# **APPENDIX A**

## **PCM-DC/DC Schematic Diagram**



WINSYSTEMS 715 STADIUM DRIVE ARLINGTON, TX 76011 817 274-7553 David Fitzgerald			
ADP-DC/DC			
Size B	CAGE Code (Cage Code)	DWG NO 400-0270-000A	Rev A
Wednesday, March 24, 1999		Scale	Sheet 1 of 1

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All products returned to WinSystems must be assigned a Return Material Authorization (RMA) number. To obtain this number, please call or FAX WinSystems' factory in Arlington, Texas and provide the following information:

1. Description and quantity of the product(s) to be returned including its serial number.
2. Reason for the return.
3. Invoice number and date of purchase (if available), and original purchase order number.
4. Name, address, telephone and FAX number of the person making the request.
5. Do not debit WinSystems for the repair. WinSystems does not authorize debits.

After the RMA number is issued, please return the products promptly. Make sure the RMA number is visible on the outside of the shipping package.

The customer must send the product freight prepaid and insured. The product must be enclosed in an anti-static bag to protect it from damage caused by static electricity. Each bag must be completely sealed. Packing material must separate each unit returned and placed as a cushion between the unit(s) and the sides and top of the shipping container. WinSystems is not responsible for any damage to the product due to inadequate packaging or static electricity.