

OPERATIONS MANUAL

PCM-IDEFLASH

NOTE: *This manual has been designed and created for use as part of the WinSystems' Technical Manuals CD and/or the WinSystems' website. If this manual or any portion of the manual is downloaded, copied or emailed, the links to additional information (i.e. software, cable drawings) will be inoperable.*

WinSystems reserves the right to make changes in the circuitry
and specifications at any time without notice.

©Copyright 1996 by WinSystems. All Rights Reserved.

REVISION HISTORY
P/N 430-0256-000

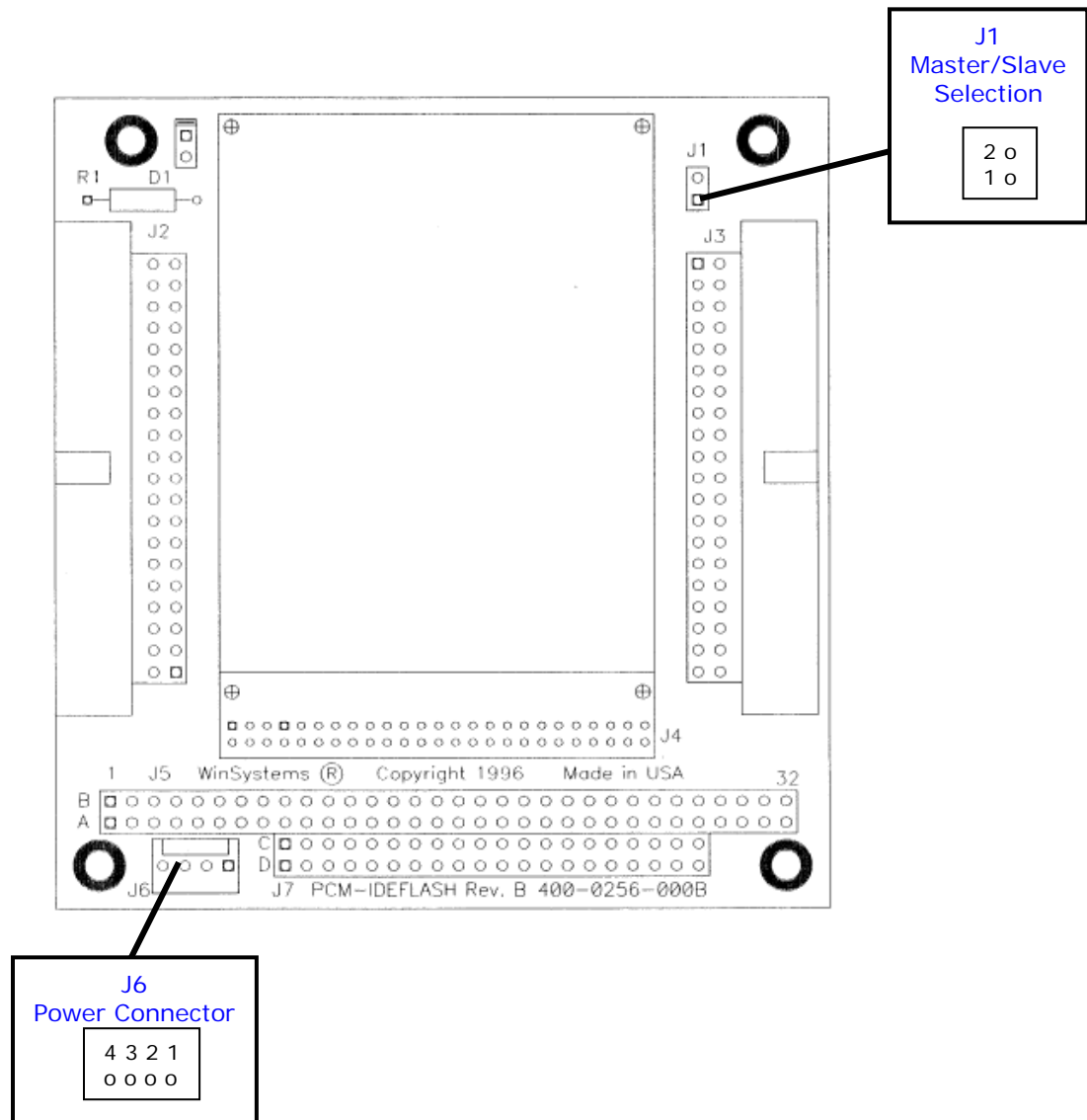
ECO Number	Date Code	Rev Level
ORIGINATED	970109	B
99-51	990428	B1

TABLE OF CONTENTS

Section	Paragraph Title	Page
	Visual Index – Quick Reference	
1	General Information	1
	Features	1
	General Information	1
	Specifications	2
2	PCM-IDEFLASH Technical Reference	3
	Introduction	3
	Master/Slave Mode Selection	3
	Auxiliary Power Input	3
	Flash Disk Initialization	4
APPENDIX A	PCM-DOC Schematic Diagram	
	Warranty and Repair Information	

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 Compatible Flash Disk Adapter Module
- Supports SanDisk 1.8" FlashDrives
- Master/Slave operation for multiple drive support
- LED provides visual status indication of data transfer
- Two IDE input/output connectors for cabling flexibility
- +5Volt only operation

General Information

The PCM-IDEFLASH is a PC/104 compatible adapter module designed specifically to adapt SanDisk 1.8" FlashDrives for rugged embedded systems use. The adapter provides for master/slave selection as well as providing a visual drive status indicator. Two IDE connectors are provided for maximum cabling flexibility. The SanDisk FlashDrives are IDE interfaced Flash drives that are fully software compatible with standard IDE hard disks. This compatibility at the software level means that special software drivers are not required.

Specifications

Electrical

Power Requirements : +5V +/-5% at 100mA typ.

Mechanical

Dimensions : 3.6" X 3.8" X 0.6"
PC Board : FR4 Epoxy Glass with 2 signal layers plated through holes and screened component legend
Jumpers : 0.025" square posts on 0.10" centers
Connectors : IDE I/O – IDH-40-LP
Power Input: 4-pin Molex

Environmental

Operating Temperature : -25°C to +75°C using industrial drives
Non-condensing relative humidity : 8% to 95%
Vibration : 15G Peak to Peak
Shock : 1000 G Max.

PCM-DOC Technical Reference

Introduction

This manual is intended to provide the necessary information regarding configuration and usage of the PCM-IDEFLASH module. 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.

Master/Slave Mode Selection

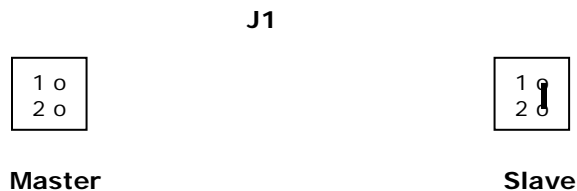
[back to
Visual Index](#)

The PCM-IDEFLASH can be used in any of three modes.

1. Stand-alone, no other IDE device
2. As a master to slave IDEFLASH
3. As a secondary drive to another IDEFLASH

NOTE: The PCM-IDEFLASH can not be the master or the slave to an IDE hard disk.

The jumper block at J1 selects master/slave mode as shown here.



Auxiliary Power Input

[back to
Visual Index](#)

When the PCM-IDEFLASH is not used on a PC/014 stack, power must be supplied via the connector at J6. The pin definition for J6 are:

4 o	+5V
3 o	GND
2 o	GND
1 o	N/C

FlashDisk Initialization

The SanDisk modules used with the IDEFLASH are fully IDE fixed disk compatible and are initialized and formatted identically to an IDE fixed disk. The steps below are provided as a checklist for DOS initialization. Refer to the appropriate fixed disk initialization instructions for other operating systems.

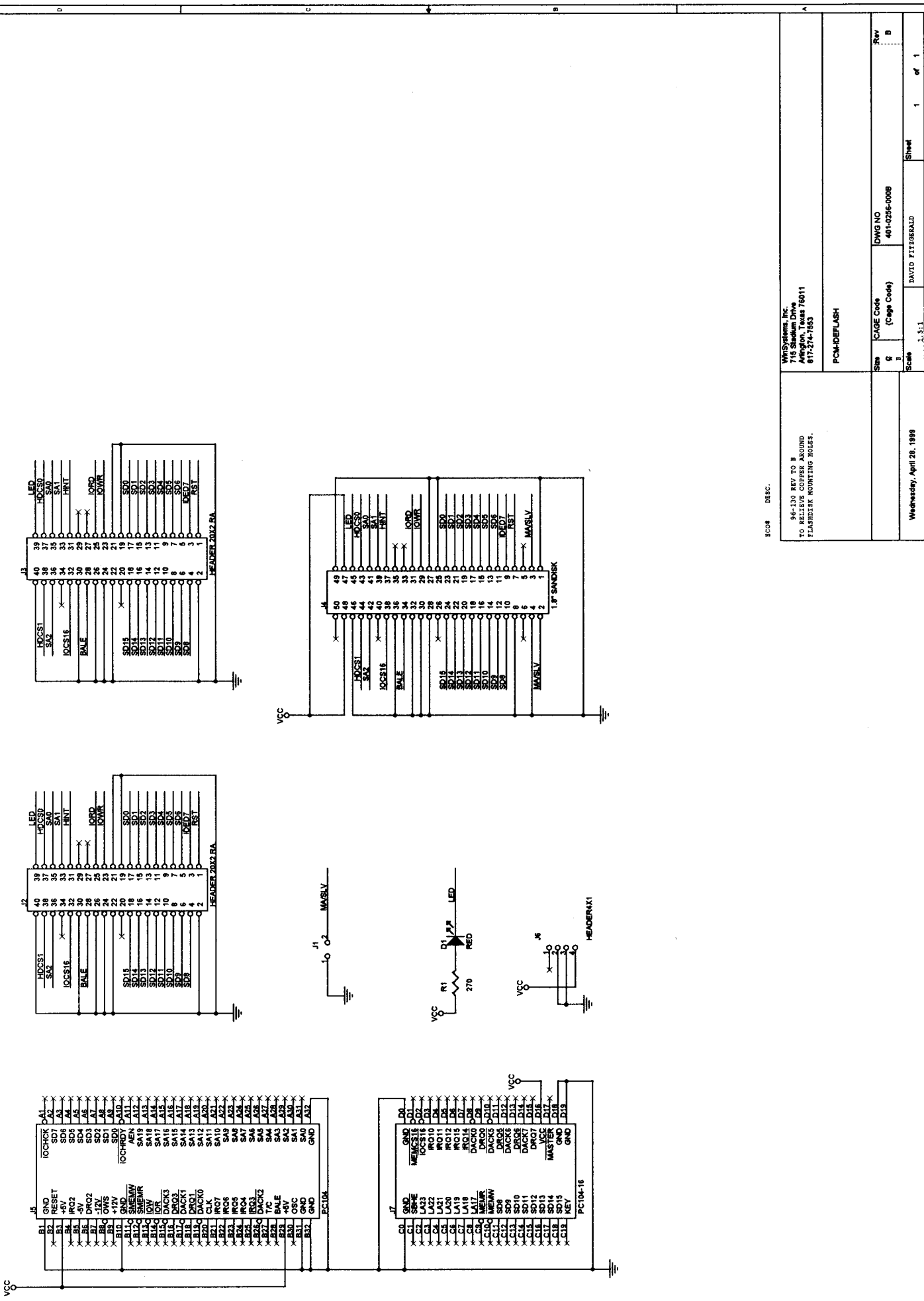
1. Use the system setup menu to enter the Cylinders, Heads, and Sectors. If the system is so equipped, auto detection is supported. The table below lists the common values for the SanDisks that were available at the time this manual was written.

SanDisk Size	Cylinders	Heads	Sectors
4MB	123	2	32
10MB	320	2	32
20MB	640	2	32
40MB	640	4	32
80MB	640	8	23

2. Use the DOS FDISK utility to create a primary DOS partition and make it active for booting.
3. Format the disk with the DOS format utility. If bootability is desired remember to use the /S switch when formatting.

APPENDIX A

PCM-IDEFLASH Schematic Diagram



ECO# DESC.

96-130 REV TO B
TO RELIEVE COPPER ARROUND
FLASHER MOUNTING BOARD.

WMSYSTEMS, INC. 715 SHADLUM DRIVE ARLINGTON, TEXAS 76011 817-274-7553		PCB-DEFLEASH	
Size	CAGE CODE	DWG NO	REV
g	(CAGE CODE)	401-0256-000B	B
Scale	1:1	DAVID FITZGERALD	Sheet 1 of 1
Wednesday, April 28, 1999			

WARRANTY

WinSystems warrants that for a period of two (2) years from the date of shipment any Products and Software purchased or licensed hereunder which have been developed or manufactured by WinSystems shall be free of any material defects and shall perform substantially in accordance with WinSystems' specifications therefore. With respect to any Products or Software purchased or licensed hereunder which have been developed or manufactured by others, WinSystems shall transfer and assign to Customer any warranty of such manufacturer or developer held by WinSystems, provided that the warranty, if any, may be assigned. The sole obligation of WinSystems for any breach of warranty contained herein shall be, at its option, either (i) to repair or replace at its expense any materially defective Products or Software, or (ii) to take back such Products and Software and refund the Customer the purchase price and any license fees paid for the same. Customer shall pay all freight, duty, broker's fees, insurance changes and other fees and charges for the return of any Products or Software to WinSystems under this warranty. WinSystems shall pay freight and insurance charges for any repaired or replaced Products or Software thereafter delivered to Customer within the United States. All fees and costs for shipment outside of the United States shall be paid by Customer. The foregoing warranty shall not apply to any Products or Software which have been subject to abuse, misuse, vandalism, accidents, alteration, neglect, unauthorized repair or improper installations.

THERE ARE NO WARRANTIES BY WINSYSTEMS EXCEPT AS STATED HEREIN. THERE ARE NO OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN NO EVENT SHALL WINSYSTEMS BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, OR SPECIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF DATA, PROFITS OR GOODWILL. WINSYSTEMS' MAXIMUM LIABILITY FOR ANY BREACH OF THIS AGREEMENT OR OTHER CLAIM RELATED TO ANY PRODUCTS, SOFTWARE, OR THE SUBJECT MATTER HEREOF, SHALL NOT EXCEED THE PURCHASE PRICE OR LICENSE FEE PAID BY CUSTOMER TO WINSYSTEMS FOR THE PRODUCTS OR SOFTWARE OR PORTION THEREOF TO WHICH SUCH BREACH OR CLAIM PERTAINS.

WARRANTY SERVICE

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.