Model 3000-57 2(4x32) Matrix 90401010







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Regulatory compliance information

This product complies with the essential requirements of the following applicable European Directives, and carries the CE mark accordingly.

89/336/EEC and 73/23/EEC EMC Directive and Low Voltage Directive

EN61010-1 (1993) Electrical Safety

EN61326-1 (1997) EMC – Emissions and Immunity

Manufacturer's Name: Manufacturer's Address

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Type of Equipment: Model Series Number

Switching Module 3000-57

Declaration of Conformity on file. Contact Giga-tronics at the following;

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Record of Changes to This Manual

Use the table below to maintain a permanent record of changes to this document. Corrected replacement pages are issued as Technical Publication Change Instructions (TPCI). When you are issued a TPCI, do the following:

- 1. Insert the TPCI at the front of the manual binder.
- 2. Remove the pages from the manual binder that are noted in the TPCI.
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TPCI Number	TPCI Issue Date	Date Entered	Comments

	Revision History						
Revision	Description of Change	Chg Order #	Approved By				
Α	Initial Release 1998						
В	Updated						
С	Reformatted 3/12		RCW				

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Chapter 1 Introduction

1.1 Safety and Manual Conventions

This manual contains conventions regarding safety and equipment usage as described below.

1.1.1 Product Reference

Throughout this manual, the term "Common Core Switching Platform, Series 8800" refers to all models of within the series, unless otherwise specified.

1.1.2 Personal Safety Alert



WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

1.1.3 Equipment Safety Alert



CAUTION: Indicates a situation which can damage or adversely affect the product or associated equipment.

1.1.4 Notes

Notes are denoted and used as follows:

NOTE: Highlights or amplifies an essential operating or maintenance procedure, practice, condition or statement.

1.1.5 Electrical Safety Precautions

Any servicing instructions are for use by service-trained personnel only. To avoid personal injury, do not perform any service unless you are qualified to do so.

For continued protections against fire hazard, replace the AC line fuse only with a fuse of the same current rating and type. Do not use repaired fuses or short circuited fuse holders.

Chapter 2 Configuration Table

SINGLE 4X64 TWO WIRE MATRIX

90401010 TOP ASSEMBLY

PL90401010 BOM FOR TOP LEVEL ASSEMBLY

85002830 PWA SUBASSEMBLY (MB)

PL85002830 BOM FOR MB SUBASSEMBLY

SCH85002830 SCHEMATIC FOR MB SUBASSEMBLY

85002840 PWA SUBASSEMBLY (DB)

PL85002840 BOM FOR DB SUBASSEMBLY

SCH85002840 SCHEMATIC FOR DB SUBASSEMBLY

DUAL, 4X32 TWO WIRE MATRIX

90401010001 TOP ASSEMBLY

PL90401010001 BOM FOR TOP LEVEL ASSEMBLY

85002830 PWA SUBASSEMBLY (MB)

PL85002830 BOM FOR MB SUBASSEMBLY

SCH85002830 SCHEMATIC FOR MB SUBASSEMBLY

85002880 PWA SUBASSEMBLY (DB)

PL85002880 BOM FOR DB SUBASSEMBLY

SCH85002880 SCHEMATIC FOR DB SUBASSEMBLY

Chapter 3 Functional Description

3.1 Introduction

This publication provides the necessary information for the maintenance and programming of the Model 3000-57 Switch Matrix. This section provides general information and specifications.

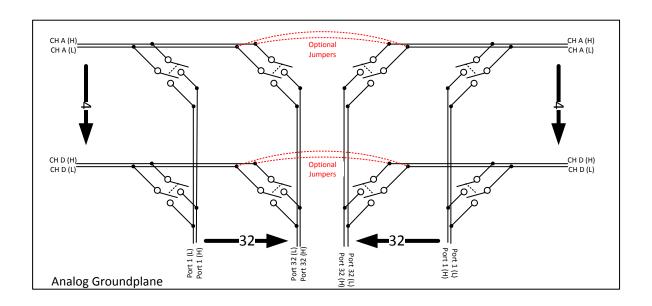
3.2 General Description

This module is a dual wire 4x64 matrix switch. Each relay in the module is individually controlled. Any relay(s) can be closed. The module is designed to support precision testing systems such as ATE (Automatic Testing Equipment). This module is ideal for high quality multi-channel measurement or stimulus switching. Each relay is coaxially shielded to a separate analog ground plane. The Interface and mechanical construction meet the requirements for the VXIbus System Specification, Rev 1.2 through 1.4.

3.3 Functional Description

This module is a universal input/output multi-wire matrix switch. It contains four 4x16 dual wire matrices connected together through isolation relays. Isolation circuits are provided to maintain signal performance by disconnecting unused sections of the matrices.

Chapter 4 Block Diagram

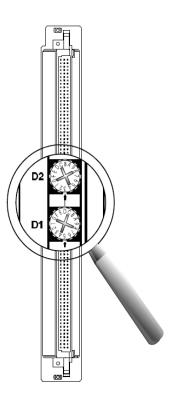


Chapter 5 Controls and Indicators

The following controls and indicators are provided to select and display the functions of the ASCOR 3000-57 Module's operating environment.

5.1 VXI Logical Address

The Logical Address Switch is dual circular switches, D1 and D2 which are located at the rear of the module. The address can be set to any value between 1 and 255 (decimal) or 1 and FF (hexadecimal), (address 0 is reserved for the resource manager). However, the Module fully supports Dynamic Configuration as defined in *Section F of the VXI specification*, address 255 (FF) should be selected only if the Resource Manager also supports Dynamic Configuration.



5.2 LEDs

The following LEDs are visible at the Module's front panel to indicate the status of the module's operation:

5.2.1 "BUS" LED

This green color LED is normally off and will flash on when the module is addressed by the system.

5.2.2 "PWR" LED

This red color LED is normally on when the Module is Powered up.

Chapter 6 Internal Settings

The following items are inside the module and can be reached by removing the side cover.

6.1 Fuse

The ASCOR VXI 3000-57 uses a 10 Amp fuse in the +5 Volt line and is located on the Mother Board (MB) assembly.

6.2 VXI_{bus} Interrupt Level Selection

The VXIbus interrupt level is set with three bits in the "3Eh" register.

See the section on "A16 ADDRESS SPACE REGISTER DESCRIPTION".

The interrupt level is factory set to "no interrupt".

Chapter 7 **Specifications**

Electrical:

Switching Voltage (DC/Peak, AC, Resistive): 220 Volts Switching Current (DC/Peak, AC, Resistive): 2 Amps Carry Current (DC/Peak, AC, Resistive): 2 Amps Contact Power Rating (DC/Peak, AC, Resistive): 60 Watts

Bandwidth: 85 MHz into 50Ω

Mechanical:

Thickness: 1.200 inches
Width: 10.317 inches
Length: 13.78 inches
Weight: 4 lbs. 10oz.

Environmental Specifications

Temperature:

Operating: 0° to 55° C Storage: -40° to 75° C

Relative Humidity:

Operating: 0 to 90% non-condensing Storage: 0 to 95% non-condensing

Chapter 9 Register Map

9.1 Features

Module register address assignment is controlled by the Resource Manager. The Resource Manager sets the Offset (VXI Configuration) Register at A16 (06h offset) and this defines the A24/A32 Base Address. The unique A24/A32 Base Address is reassigned each time the Resource Manager initiates. This Base Address determines the address of each module register.

You can read the Offset Register at A16 (06h offset) to obtain the A24 Base Address. After reading the Offset Register, map the first (most significant) eight (8) bits of the Offset Register to the first eight (8) bits of the A24 Base Address. To obtain an A32 Base Address, map the first 16 bits of the Offset Register to the first 16 bits of the A32 Base Address. Set all other bits of either Base Address to zeroes.

Alternatively, you can obtain the A24 or A32 Base Address by issuing a library call. See programming Example 1 and Example 2 beginning on page 29.

To obtain the A16 Base Address, use the following formula:

A16 Base Address = C000h + (Logical Address x 40h)

Table 9-1. Logical Address and A16 Base Address Relationship

Logical Address	A16 Base Address
1	C040h
2	C080h
3	C0C0h
4	C100h

and so on...

For purposes of interface library calls, the address of each register on the Model 3000-57 is the sum of the following:

The A24/A32 Base Address.

Offset of 8000h or 8020h (motherboard or daughterboard)

- + The register number minus 1 times 2 or 4 (16-bit or 32-bit address factor); if the register number is 1 then no change
- = Module register address.

9.2 Register Programming

The registers that control the motherboard relays start at an offset of 8000h from the A24/A32 Base Address. The registers for the daughterboard start at an offset of 8020h. Module registers can be accessed as either 16-bit words, or 32-bit words. Under 16-bit (D16) mode, address offsets increment by 2h. Under 32-bit (D32) mode, address offsets increment by 4h. Table 9-1 on page 16 shows offsets and bit numbers for both methods.

Table 9-2 on page 18 and Table 9-3 on page 23 list each motherboard or daughterboard relay path connections to the front panel of the card assembly.

In 16-bit mode, each register controls 4 pins at four bits each; in 32-bit mode, each register controls 8 pins. These four bits correspond to the four channels A, B, C, and D. Typically, only one channel is assigned to a pin for optimum performance.

Through your VXI controller, write data to the register in D16 or D32 mode. When a data bit is on (true), the corresponding relay is closed. The state of the relays in a register can be determined by reading the register. The data readback represents the state of the relay coil. This allows you to verify that the program register has correctly controlled the relay coil.

Whenever you close a pin to a channel by setting a bit, the appropriate channel isolation relay must also be closed to complete the path. You close the isolation relay by writing to the last register in the motherboard or daughterboard.

For example, to close pin 1 to channel A and to close pin 2 to channel B, set the following bits:

For more information on the motherboard and daughterboard devices and locations see Section 4.

Table 9-1. 3000-57 Memory Map

Motherboard Relays

Moiner	board R	teiays	5															
Mode	Offset	Reg #	MSB						E	Bit Nu	mber	S						LSB
16-bit	8000h	1	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	8000h	1	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	Contro	lled	K16	K15	K14	K13	K12	K11	K10	К9	K8	<i>K</i> 7	K6	K5	<i>K4</i>	КЗ	K2	K1
16-bit	8002h	2	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	8000h	1	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays	Contro	lled	K32	K31	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21	K20	K19	K18	K1 7
16-bit	8004h	3	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	8004h	2	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	Contro	lled	K48	K4 7	K46	K45	K44	K43	K42	K41	K40	K39	K38	<i>K37</i>	K36	K35	K34	K33
16-bit	8006h	4	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	8004h	2	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays	Contro	lled	K64	K63	K62	K61	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51	K50	K49
16-bit	8008h	5	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	8008h	3	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	Contro	lled	K80	K79	K78	<i>K</i> 77	K76	K75	K74	K73	K72	K71	K70	K69	K68	<i>K67</i>	K66	K65
16-bit	800Ah	6	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	8008h	3	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays	Contro	lled	K96	K95	K94	K93	K92	K91	K90	K89	K88	K8 7	K86	K85	K84	K83	K82	K81
16-bit	800Ch	7	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	800Ch	4	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	Contro	lled	K112	K111	K110	K109	K108	K107	K106	K105	K104	K103	K102	K101	K100	K99	K98	K97
16-bit	800Eh	8	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	800Ch	4	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays	Contro	lled	K128	K12 7	K126	K125	K124	K123	K122	K121	K120	K119	K118	K11 7	K116	K115	K114	K113
16-bit	8010h	9	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit	8010h	5	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	Contro	lled	—		—	—	—	_	_	_	K136	K135	K134	K133	K132	K131	K130	K129

Table 9-1. 3000-57 Memory Map, Continued

Daughterbo	ard Re	lays															
16-bit 802	0h 10	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802	0h 6	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays Con	trolled	K16	K15	K14	K13	K12	K11	K10	К9	K8	<i>K</i> 7	K6	K5	K4	К3	K2	K1
16-bit 802	2h 11	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802		31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays Con		K32	K31	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21	K20	K19	K18	K17
	ı	ı	1	ı	ı					ı			ı				
16-bit 802		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays Con	trolled	K48	K4 7	K46	K45	K44	K43	K42	K41	K40	K39	K38	K37	K36	K35	K34	K33
16-bit 802	6h 13	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802		31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays Con		K64	K63	K62	K61	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51	K50	K49
				l .	l .					l .			l .				
16-bit 802		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays Con	trolled	K80	K79	K78	<i>K</i> 77	K76	K75	K74	K73	K72	K71	K70	K69	K68	K67	K66	K65
16-bit 802	Ah 15	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802		31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Relays Con		K96	K95	K94	K93	K92	K91	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81
Kettys Con	понец	100	107	107	10)	102	101	100	100	100	107	100	100	Not	Roz	ROZ	KO I
16-bit 802	Ch 16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 802	Ch 9	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays Con	trolled	K112	K111	K110	K109	K108	K10 7	K106	K105	K104	K103	K102	K101	K100	K99	K98	K97
16 1:4 002	ri 17	1 4 5	11	12	12	11	10	0	0	7		_		2		1	0
16-bit 802 32-bit 802		15 31	<i>14</i> <i>30</i>	13 29	12 28	11 27	10 26	9 25	8 24	7 23	6 22	5 21	<i>4</i> <i>20</i>	3 19	2 18	1 17	16
			30 K12 7														
Relays Con	понеа	K128	K12/	K120	K123	K124	K123	K122	KIZI	K120	KIIS	K118	KII/	K116	KII)	K114	KII)
16-bit 803	0h 18	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
32-bit 803	0h 10	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays Con	trolled	_				_	_			K136	K135	K134	K133	K132	K131	K130	K129

Table 9-2. Relays, Motherboard, PCB scH85002830

Mode:	16-bit	32-bit	Description: Control man	trix pins 1—4, Channels A, B, C, and D.
Offset	8000h	8000h	1	
:				
Relay	Bit	Bit	Function	Connection (H, L, Shield)
#				
<u>K1</u>	0	0	Channel A, Pin 1.	J1-50, 49, 48. Channel A is J2-35, 36, 34.
<u>K2</u>	1	1	Channel B, Pin 1.	J1-50, 49, 48. Channel B is J2-32, 33, 31.
<u>K3</u>	2	2	Channel C, Pin 1.	J1-50, 49, 48. Channel C is J2-5, 6, 4.
K4	3	3	Channel D, Pin 1.	J1-50, 49, 48. Channel D is J2-2, 3, 1.
K5	4	4	Channel A, Pin 2.	J1-25, 24, 23. Channel A is J2-35, 36, 34.
K6	5	5	Channel B, Pin 2.	J1-25, 24, 23. Channel B is J2-32, 33, 31.
K7	6	6	Channel C, Pin 2.	J1-25, 24, 23. Channel C is J2-5, 6, 4.
K8	7	7	Channel D, Pin 2.	J1-25, 24, 23. Channel D is J2-2, 3, 1.
K9	8	8	Channel A, Pin 3.	J1-47, 46, 45. Channel A is J2-35, 36, 34.
K10	9	9	Channel B, Pin 3.	J1-47, 46, 45. Channel B is J2-32, 33, 31.
K11	10	10	Channel C, Pin 3.	J1-47, 46, 45. Channel C is J2-5, 6, 4.
K12	11	11	Channel D, Pin 3.	J1-47, 46, 45. Channel D is J2-2, 3, 1.
K13	12	12	Channel A, Pin 4.	J1-22, 21, 20. Channel A is J2-35, 36, 34.
K14	13	13	Channel B, Pin 4.	J1-22, 21, 20. Channel B is J2-32, 33, 31.
K15	14	14	Channel C, Pin 4.	J1-22, 21, 20. Channel C is J2-5, 6, 4.
K16	15	15	Channel D, Pin 4.	J1-22, 21, 20. Channel D is J2-2, 3, 1.
Mode:	16-hit	32-hit	Description: Control ma	trix tins 5–8 Channels A B C and D
Mode:	16-bit 8002h	32-bit 8000h	Description: Control man	trix pins 5–8, Channels A, B, C, and D.
Mode: Offset :	16-bit 8002h	32-bit 8000h	Description: Control man	trix pins 5–8, Channels A, B, C, and D.
Offset :			Description: Control man	-
	8002h	8000h		trix pins 5–8, Channels A, B, C, and D. Connection (H, L, Shield)
Offset : Relay	8002h	8000h		-
Offset : Relay #	8002h Bit	8000h Bit	Function	Connection (H, L, Shield)
Offset : Relay # K17	8002h Bit	8000h Bit	Function Channel A, Pin 5.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34.
Offset : Relay # K17 K18	8002h Bit 0 1	8000h Bit 16 17	Function Channel A, Pin 5. Channel B, Pin 5.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19	8002h Bit 0 1 2	8000h Bit 16 17 18	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4.
Offset : Relay # K17 K18 K19 K20	8002h Bit 0 1 2 3	8000h Bit 16 17 18 19	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-44, 43, 42. Channel D is J2-2, 3, 1.
Offset : Relay # K17 K18 K19 K20 K21	8002h Bit 0 1 2 3 4	8000h Bit 16 17 18 19 20	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-44, 43, 42. Channel D is J2-2, 3, 1. J1-19, 18, 17. Channel A is J2-35, 36, 34.
Offset : Relay # K17 K18 K19 K20 K21 K22	8002h Bit 0 1 2 3 4 5	8000h Bit 16 17 18 19 20 21	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel B, Pin 6.	Connection (H, L, Shield) J144, 43, 42. Channel A is J2-35, 36, 34. J144, 43, 42. Channel B is J2-32, 33, 31. J144, 43, 42. Channel C is J2-5, 6, 4. J144, 43, 42. Channel D is J2-2, 3, 1. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23	8002h Bit 0 1 2 3 4 5 6	8000h Bit 16 17 18 19 20 21 22	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel B, Pin 6. Channel C, Pin 6.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-44, 43, 42. Channel D is J2-2, 3, 1. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24	8002h Bit 0 1 2 3 4 5 6 7	8000h Bit 16 17 18 19 20 21 22 23	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel B, Pin 6. Channel C, Pin 6. Channel C, Pin 6.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel C is J2-5, 6, 4.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25	8002h Bit 0 1 2 3 4 5 6 7 8	8000h Bit 16 17 18 19 20 21 22 23 24	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel B, Pin 6. Channel C, Pin 6. Channel D, Pin 6. Channel D, Pin 6. Channel A, Pin 7.	Connection (H, L, Shield) J144, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-44, 43, 42. Channel D is J2-2, 3, 1. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel D is J2-2, 3, 1. J1-41, 40, 39. Channel A is J2-35, 36, 34.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26	8002h Bit 0 1 2 3 4 5 6 7 8 9	8000h Bit 16 17 18 19 20 21 22 23 24 25	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel B, Pin 6. Channel C, Pin 6. Channel D, Pin 6. Channel D, Pin 6. Channel A, Pin 7. Channel B, Pin 7.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-44, 43, 42. Channel D is J2-2, 3, 1. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel D is J2-2, 3, 1. J1-41, 40, 39. Channel A is J2-35, 36, 34. J1-41, 40, 39. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27	8002h Bit 0 1 2 3 4 5 6 7 8 9 10	8000h Bit 16 17 18 19 20 21 22 23 24 25 26	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel B, Pin 6. Channel D, Pin 6. Channel D, Pin 6. Channel B, Pin 7. Channel B, Pin 7. Channel C, Pin 7.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel D is J2-2, 3, 1. J1-41, 40, 39. Channel A is J2-35, 36, 34. J1-41, 40, 39. Channel B is J2-32, 33, 31. J1-41, 40, 39. Channel C is J2-5, 6, 4.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28	8002h Bit 0 1 2 3 4 5 6 7 8 9 10 11	8000h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel A, Pin 6. Channel C, Pin 6. Channel D, Pin 6. Channel D, Pin 7. Channel B, Pin 7. Channel C, Pin 7. Channel C, Pin 7.	Connection (H, L, Shield) J144, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-44, 43, 42. Channel D is J2-2, 3, 1. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel D is J2-2, 3, 1. J1-41, 40, 39. Channel B is J2-32, 33, 31. J1-41, 40, 39. Channel C is J2-5, 6, 4. J1-41, 40, 39. Channel C is J2-5, 6, 4.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29	8002h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12	8000h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Function Channel A, Pin 5. Channel B, Pin 5. Channel C, Pin 5. Channel D, Pin 5. Channel B, Pin 6. Channel B, Pin 6. Channel D, Pin 6. Channel D, Pin 7. Channel B, Pin 7. Channel C, Pin 7. Channel D, Pin 7. Channel D, Pin 7. Channel D, Pin 7. Channel D, Pin 7. Channel A, Pin 8.	Connection (H, L, Shield) J1-44, 43, 42. Channel A is J2-35, 36, 34. J1-44, 43, 42. Channel B is J2-32, 33, 31. J1-44, 43, 42. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel A is J2-35, 36, 34. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel B is J2-32, 33, 31. J1-19, 18, 17. Channel C is J2-5, 6, 4. J1-19, 18, 17. Channel D is J2-2, 3, 1. J1-41, 40, 39. Channel B is J2-35, 36, 34. J1-41, 40, 39. Channel B is J2-32, 33, 31. J1-41, 40, 39. Channel C is J2-5, 6, 4. J1-41, 40, 39. Channel C is J2-5, 6, 4. J1-41, 40, 39. Channel D is J2-2, 3, 1. J1-16, 15, 14. Channel A is J2-35, 36, 34.

Table 9	-2. Rela	ys, ivioti	nerboard, PCB scн85	oozooo, commuca
Mode:	16-bit	32-bit	Description: Control 1	matrix pins 9–12, Channels A, B, C, and D.
Offset	8004h	8004h		
<u>:</u>				T
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K33	0	0	Channel A, Pin 9.	[1-38, 37, 36. Channel A is [2-35, 36, 34.
K34	1	1	Channel B, Pin 9.	J1-38, 37, 36. Channel B is J2-32, 33, 31.
K35	2	2	Channel C, Pin 9.	J1-38, 37, 36. Channel C is J2-5, 6, 4.
K36	3	3	Channel D, Pin 9.	J1-38, 37, 36. Channel D is J2-2, 3, 1.
K37	4	4	Channel A, Pin 10.	J1-13, 12, 11. Channel A is J2-35, 36, 34.
K38	5	5	Channel B, Pin 10.	J1-13, 12, 11. Channel B is J2-32, 33, 31.
K39	6	6	Channel C, Pin 10.	J1-13, 12, 11. Channel C is J2-5, 6, 4.
K40	7	7	Channel D, Pin 10.	J1-13, 12, 11. Channel D is J2-2, 3, 1.
K41	8	8	Channel A, Pin 11.	J1-35, 34, 33. Channel A is J2-35, 36, 34.
K42	9	9	Channel B, Pin 11.	J1-35, 34, 33. Channel B is J2-32, 33, 31.
K43	10	10	Channel C, Pin 11.	[1-35, 34, 33. Channel C is [2-5, 6, 4.
K44	11	11	Channel D, Pin 11.	J1-35, 34, 33. Channel D is J2-2, 3, 1.
K45	12	12	Channel A, Pin 12.	J1-10, 9, 8. Channel A is J2-35, 36, 34.
K46	13	13	Channel B, Pin 12.	[1-10, 9, 8. Channel B is [2-32, 33, 31.
1110	1)			
K47	14	14	Channel C, Pin 12.	<i>J1-10, 9, 8. Channel C is J2-5, 6, 4.</i>
		14 15	Channel C, Pin 12. Channel D, Pin 12	J1-10, 9, 8. Channel C is J2-5, 6, 4. J1-10, 9, 8. Channel D is J2-2, 3, 1.
K47 K48	14 15	15	Channel D, Pin 12	J1-10, 9, 8. Channel D is J2-2, 3, 1.
K47 K48 Mode:	14 15 16-bit	15 32-bit	Channel D, Pin 12	· · · · · · · · · · · · · · · · · · ·
K47 K48	14 15	15	Channel D, Pin 12	J1-10, 9, 8. Channel D is J2-2, 3, 1.
K47 K48 Mode:	14 15 16-bit	15 32-bit	Channel D, Pin 12	J1-10, 9, 8. Channel D is J2-2, 3, 1.
K47 K48 Mode: Offset	14 15 16-bit 8006h	15 32-bit 8004h	Channel D, Pin 12 Description: Control i	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D.
K47 K48 Mode: Offset : Relay	14 15 16-bit 8006h	15 32-bit 8004h	Channel D, Pin 12 Description: Control i	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D.
K47 K48 Mode: Offset : Relay #	14 15 16-bit 8006h Bit	32-bit 8004h Bit	Channel D, Pin 12 Description: Control of Function	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield)
K47 K48 Mode: Offset : Relay # K49	14 15 16-bit 8006h Bit	15 32-bit 8004h Bit	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34.
K47 K48 Mode: Offset : Relay # K49 K50	14 15 16-bit 8006h Bit 0	15 32-bit 8004h Bit 16 17	Channel D, Pin 12 Description: Control i Function Channel A, Pin 13. Channel B, Pin 13.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31.
K47 K48 Mode: Offset : Relay # K49 K50 K51	14 15 16-bit 8006h Bit 0 1	15 32-bit 8004h Bit 16 17 18	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52	14 15 16-bit 8006h Bit 0 1 2	15 32-bit 8004h Bit 16 17 18	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4. J1-32, 31, 30. Channel D is J2-2, 3, 1.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53	14 15 16-bit 8006h Bit 0 1 2 3	15 32-bit 8004h Bit 16 17 18 19 20	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel A, Pin 14.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4. J1-32, 31, 30. Channel D is J2-2, 3, 1. J1-7, 6, 5. Channel A is J2-35, 36, 34.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54	14 15 16-bit 8006h Bit 0 1 2 3 4	15 32-bit 8004h Bit 16 17 18 19 20 21	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel A, Pin 14. Channel B, Pin 14.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4. J1-32, 31, 30. Channel D is J2-2, 3, 1. J1-7, 6, 5. Channel A is J2-35, 36, 34. J1-7, 6, 5. Channel B is J2-32, 33, 31.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55	14 15 16-bit 8006h Bit 0 1 2 3 4 5	15 32-bit 8004h Bit 16 17 18 19 20 21 22	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel A, Pin 14. Channel B, Pin 14. Channel C, Pin 14.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel A is J2-35, 36, 34. J1-7, 6, 5. Channel B is J2-32, 33, 31. J1-7, 6, 5. Channel C is J2-5, 6, 4.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56	14 15 16-bit 8006h Bit 0 1 2 3 4 5 6	15 32-bit 8004h Bit 16 17 18 19 20 21 22 23	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel A, Pin 14. Channel B, Pin 14. Channel C, Pin 14. Channel D, Pin 14.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel A is J2-35, 36, 34. J1-7, 6, 5. Channel B is J2-32, 33, 31. J1-7, 6, 5. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel D is J2-2, 3, 1.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57	14 15 16-bit 8006h Bit 0 1 2 3 4 5 6 7	15 32-bit 8004h Bit 16 17 18 19 20 21 22 23 24	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel A, Pin 14. Channel B, Pin 14. Channel C, Pin 14. Channel D, Pin 14. Channel D, Pin 15.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57	14 15 16-bit 8006h Bit 0 1 2 3 4 5 6 7 8	15 32-bit 8004h Bit 16 17 18 19 20 21 22 23 24 25	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel B, Pin 14. Channel B, Pin 14. Channel C, Pin 14. Channel D, Pin 14. Channel D, Pin 15. Channel B, Pin 15.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D. Connection (H, L, Shield) J1-32, 31, 30. Channel A is J2-35, 36, 34. J1-32, 31, 30. Channel B is J2-32, 33, 31. J1-32, 31, 30. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel A is J2-35, 36, 34. J1-7, 6, 5. Channel B is J2-32, 33, 31. J1-7, 6, 5. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel C is J2-5, 6, 4. J1-7, 6, 5. Channel D is J2-2, 3, 1. J1-29, 28, 27. Channel A is J2-35, 36, 34. J1-29, 28, 27. Channel B is J2-32, 33, 31.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58	14 15 16-bit 8006h Bit 0 1 2 3 4 5 6 7 8 9	15 32-bit 8004h Bit 16 17 18 19 20 21 22 23 24 25 26	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel D, Pin 13. Channel D, Pin 14. Channel B, Pin 14. Channel C, Pin 14. Channel D, Pin 14. Channel D, Pin 15. Channel B, Pin 15. Channel C, Pin 15.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58 K59	14 15 16-bit 8006h Bit 0 1 2 3 4 5 6 7 8 9 10 11	15 32-bit 8004h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel D, Pin 13. Channel D, Pin 14. Channel B, Pin 14. Channel D, Pin 14. Channel D, Pin 15. Channel B, Pin 15. Channel C, Pin 15. Channel C, Pin 15. Channel D, Pin 15.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D.
K47 K48 Mode: Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58 K59 K60 K61	14 15 16-bit 8006h Bit 0 1 2 3 4 5 6 7 8 9 10 11	15 32-bit 8004h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Channel D, Pin 12 Description: Control of Function Channel A, Pin 13. Channel B, Pin 13. Channel C, Pin 13. Channel D, Pin 13. Channel A, Pin 14. Channel B, Pin 14. Channel C, Pin 14. Channel D, Pin 14. Channel D, Pin 15. Channel B, Pin 15. Channel C, Pin 15. Channel D, Pin 15. Channel D, Pin 15. Channel D, Pin 15. Channel A, Pin 16.	J1-10, 9, 8. Channel D is J2-2, 3, 1. matrix pins 13–16, Channels A, B, C, and D.

Table 3	-2. Reia	ys, ivioti	herboard, PCB scн850	102830, Continued
Mode:	16-bit	32-bit	Description: Control m	atrix pins 17–20, Channels A, B, C, and D.
Offset	8008h	8008h		
:				
Relay	Bit	Bit	Function	Connection (H, L, Shield)
#	0	0	Cl 1 4 D: 47	12 (0 50 50 6) 14: 12 25 26 24
K65	0	0	Channel A, Pin 17.	J2-60, 59, 58. Channel A is J2-35, 36, 34.
K66	1	1	Channel B, Pin 17.	J2-60, 59, 58. Channel B is J2-32, 33, 31.
K67	2	2	Channel C, Pin 17.	J2-60, 59, 58. Channel C is J2-5, 6, 4.
K68	3	3	Channel D, Pin 17.	J2-60, 59, 58. Channel D is J2-2, 3, 1.
K69	4	4	Channel A, Pin 18.	J2-30, 29, 28. Channel A is J2-35, 36, 34.
K70	5	5	Channel B, Pin 18.	J2-30, 29, 28. Channel B is J2-32, 33, 31.
K71	6	6	Channel C, Pin 18.	J2-30, 29, 28. Channel C is J2-5, 6, 4.
K72	7	7	Channel D, Pin 18.	J2-30, 29, 28. Channel D is J2-2, 3, 1.
K73	8	8	Channel A, Pin 19.	J2-57, 56, 55. Channel A is J2-35, 36, 34.
K74	9	9	Channel B, Pin 19.	J2-57, 56, 55. Channel B is J2-32, 33, 31.
K75	10	10	Channel C, Pin 19.	J2-57, 56, 55. Channel C is J2-5, 6, 4.
K76	11	11	Channel D, Pin 19.	J2-57, 56, 55. Channel D is J2-2, 3, 1.
K77	12	12	Channel A, Pin 20.	J2-27, 26, 25. Channel A is J2-35, 36, 34.
K78	13	13	Channel B, Pin 20.	J2-27, 26, 25. Channel B is J2-32, 33, 31.
K79	14	14	Channel C, Pin 20.	J2-27, 26, 25. Channel C is J2-5, 6, 4.
K80	15	15	Channel D, Pin 20.	J2-27, 26, 25. Channel D is J2-2, 3, 1.
	16-bit			1,
Mode:	16-bit 800A	32-bit		patrix pins 21–24, Channels A, B, C, and D.
	16-bit 800A h			1,
Mode:	800A	32-bit		1,
Mode: Offset	800A h	32-bit 8008h	Description: Control m	vatrix pins 21–24, Channels A, B, C, and D.
Mode: Offset : Relay	800A h	32-bit 8008h	Description: Control m	vatrix pins 21–24, Channels A, B, C, and D.
Mode: Offset : Relay #	800A h Bit	32-bit 8008h Bit	Description: Control m Function	Connection (H, L, Shield)
Mode: Offset : Relay # K81	800A h Bit	32-bit 8008h Bit	Description: Control m Function Channel A, Pin 21.	Connection (H, L, Shield) J2-54, 53, 52. Channel A is J2-35, 36, 34.
Mode: Offset : Relay # K81 K82	800A h Bit	32-bit 8008h Bit 16 17	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21.	Connection (H, L, Shield) J2-54, 53, 52. Channel B is J2-32, 33, 31.
Mode: Offset : Relay # K81 K82 K83	800A h Bit 0 1 2	32-bit 8008h Bit 16 17 18	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21.	Connection (H, L, Shield) [2-54, 53, 52. Channel B is J2-32, 33, 31.] [3-54, 53, 52. Channel C is J2-5, 6, 4.]
Mode: Offset : Relay # K81 K82 K83	800A h Bit 0 1 2 3	32-bit 8008h Bit 16 17 18 19	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [2-54, 53, 52. Channel B is J2-32, 33, 31.] [2-54, 53, 52. Channel C is J2-5, 6, 4.] [2-54, 53, 52. Channel D is J2-2, 3, 1.]
Mode: Offset : Relay # K81 K82 K83 K84	800A h Bit 0 1 2 3 4	32-bit 8008h Bit 16 17 18 19 20	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel A, Pin 22.	Connection (H, L, Shield) J2-54, 53, 52. Channel A is J2-35, 36, 34. J2-54, 53, 52. Channel B is J2-32, 33, 31. J2-54, 53, 52. Channel C is J2-5, 6, 4. J2-54, 53, 52. Channel D is J2-2, 3, 1. J2-24, 23, 22. Channel A is J2-35, 36, 34.
Mode: Offset : Relay # K81 K82 K83 K84 K85	800A h Bit 0 1 2 3 4	32-bit 8008h Bit 16 17 18 19 20 21	Punction: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel A, Pin 22. Channel B, Pin 22.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [3-54, 53, 52. Channel B is J2-32, 33, 31.] [3-54, 53, 52. Channel C is J2-5, 6, 4.] [3-54, 53, 52. Channel D is J2-2, 3, 1.] [3-54, 23, 22. Channel A is J2-35, 36, 34.] [3-24, 23, 22. Channel B is J2-32, 33, 31.]
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86	800A h Bit 0 1 2 3 4 5	32-bit 8008h Bit 16 17 18 19 20 21 22	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel A, Pin 22. Channel B, Pin 22. Channel C, Pin 22.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [2-54, 53, 52. Channel B is J2-32, 33, 31.] [2-54, 53, 52. Channel C is J2-5, 6, 4.] [2-54, 53, 52. Channel D is J2-2, 3, 1.] [2-24, 23, 22. Channel A is J2-35, 36, 34.] [2-24, 23, 22. Channel B is J2-32, 33, 31.] [2-24, 23, 22. Channel C is J2-5, 6, 4.]
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86 K87	800A h Bit 0 1 2 3 4 5 6	32-bit 8008h Bit 16 17 18 19 20 21 22 23	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel A, Pin 22. Channel B, Pin 22. Channel C, Pin 22. Channel C, Pin 22. Channel D, Pin 22.	Connection (H, L, Shield) J2-54, 53, 52. Channel A is J2-35, 36, 34. J2-54, 53, 52. Channel B is J2-32, 33, 31. J2-54, 53, 52. Channel C is J2-5, 6, 4. J2-54, 53, 52. Channel D is J2-2, 3, 1. J2-24, 23, 22. Channel A is J2-35, 36, 34. J2-24, 23, 22. Channel B is J2-32, 33, 31. J2-24, 23, 22. Channel C is J2-5, 6, 4. J2-24, 23, 22. Channel C is J2-5, 6, 4. J2-24, 23, 22. Channel D is J2-2, 3, 1.
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86 K87	800A h Bit 0 1 2 3 4 5 6 7	32-bit 8008h Bit 16 17 18 19 20 21 22 23 24	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel A, Pin 22. Channel B, Pin 22. Channel C, Pin 22. Channel C, Pin 22. Channel D, Pin 22. Channel D, Pin 23.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [2-54, 53, 52. Channel B is J2-32, 33, 31.] [2-54, 53, 52. Channel C is J2-5, 6, 4.] [2-54, 53, 52. Channel D is J2-2, 3, 1.] [2-24, 23, 22. Channel A is J2-35, 36, 34.] [2-24, 23, 22. Channel B is J2-32, 33, 31.] [2-24, 23, 22. Channel C is J2-5, 6, 4.] [2-24, 23, 22. Channel C is J2-5, 6, 4.] [2-24, 23, 22. Channel D is J2-2, 3, 1.] [2-51, 50, 49. Channel A is J2-35, 36, 34.]
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89	800A h Bit 0 1 2 3 4 5 6 7	32-bit 8008h Bit 16 17 18 19 20 21 22 23 24 25	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel B, Pin 22. Channel B, Pin 22. Channel C, Pin 22. Channel D, Pin 22. Channel D, Pin 23. Channel A, Pin 23.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [2-54, 53, 52. Channel B is J2-32, 33, 31.] [2-54, 53, 52. Channel C is J2-5, 6, 4.] [2-54, 53, 52. Channel D is J2-2, 3, 1.] [2-24, 23, 22. Channel A is J2-35, 36, 34.] [2-24, 23, 22. Channel B is J2-32, 33, 31.] [2-24, 23, 22. Channel C is J2-5, 6, 4.] [2-24, 23, 22. Channel C is J2-5, 6, 4.] [2-24, 23, 22. Channel D is J2-2, 3, 1.] [2-51, 50, 49. Channel A is J2-35, 36, 34.] [2-51, 50, 49. Channel B is J2-32, 33, 31.]
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89	800A h Bit 0 1 2 3 4 5 6 7 8 9	32-bit 8008h Bit 16 17 18 19 20 21 22 23 24 25 26	Punction Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel A, Pin 22. Channel B, Pin 22. Channel C, Pin 22. Channel D, Pin 22. Channel D, Pin 23. Channel B, Pin 23. Channel B, Pin 23. Channel C, Pin 23.	Connection (H, L, Shield) J2-54, 53, 52. Channel A is J2-35, 36, 34. J2-54, 53, 52. Channel B is J2-32, 33, 31. J2-54, 53, 52. Channel C is J2-5, 6, 4. J2-54, 53, 52. Channel D is J2-2, 3, 1. J2-24, 23, 22. Channel A is J2-35, 36, 34. J2-24, 23, 22. Channel B is J2-32, 33, 31. J2-24, 23, 22. Channel C is J2-5, 6, 4. J2-24, 23, 22. Channel C is J2-5, 6, 4. J2-51, 50, 49. Channel A is J2-35, 36, 34. J2-51, 50, 49. Channel B is J2-32, 33, 31. J2-51, 50, 49. Channel C is J2-5, 6, 4.
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89 K90 K91 K92	800A h Bit 0 1 2 3 4 5 6 7 8 9	32-bit 8008h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Description: Control m Function Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 22. Channel B, Pin 22. Channel C, Pin 22. Channel D, Pin 22. Channel D, Pin 23. Channel B, Pin 23. Channel C, Pin 23. Channel C, Pin 23. Channel D, Pin 23.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [2-54, 53, 52. Channel B is J2-32, 33, 31.] [2-54, 53, 52. Channel C is J2-5, 6, 4.] [2-54, 53, 52. Channel D is J2-2, 3, 1.] [2-24, 23, 22. Channel A is J2-35, 36, 34.] [2-24, 23, 22. Channel B is J2-32, 33, 31.] [2-24, 23, 22. Channel C is J2-5, 6, 4.] [2-24, 23, 22. Channel D is J2-2, 3, 1.] [2-51, 50, 49. Channel A is J2-35, 36, 34.] [2-51, 50, 49. Channel B is J2-32, 33, 31.] [2-51, 50, 49. Channel C is J2-5, 6, 4.] [2-51, 50, 49. Channel D is J2-2, 3, 1.]
Mode: Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89 K90 K91 K92 K93	800A h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12	32-bit 8008h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Punction Channel A, Pin 21. Channel B, Pin 21. Channel C, Pin 21. Channel D, Pin 21. Channel B, Pin 22. Channel B, Pin 22. Channel B, Pin 22. Channel C, Pin 22. Channel D, Pin 23. Channel B, Pin 23. Channel C, Pin 23. Channel C, Pin 23. Channel C, Pin 23. Channel D, Pin 23. Channel D, Pin 23. Channel D, Pin 23. Channel D, Pin 23.	Connection (H, L, Shield) [2-54, 53, 52. Channel A is J2-35, 36, 34.] [2-54, 53, 52. Channel B is J2-32, 33, 31.] [2-54, 53, 52. Channel C is J2-5, 6, 4.] [2-54, 53, 52. Channel D is J2-2, 3, 1.] [2-54, 23, 22. Channel A is J2-35, 36, 34.] [2-24, 23, 22. Channel B is J2-32, 33, 31.] [2-24, 23, 22. Channel C is J2-5, 6, 4.] [2-24, 23, 22. Channel D is J2-2, 3, 1.] [2-51, 50, 49. Channel A is J2-35, 36, 34.] [2-51, 50, 49. Channel B is J2-32, 33, 31.] [2-51, 50, 49. Channel C is J2-5, 6, 4.] [2-51, 50, 49. Channel D is J2-2, 3, 1.] [2-51, 50, 49. Channel D is J2-2, 3, 1.] [2-51, 50, 49. Channel D is J2-35, 36, 34.] [2-51, 50, 49. Channel D is J2-35, 36, 34.]

Table 9	-2. Rela	ys, Moth	nerboard, PCB scH8500	02830, Continued
Mode:	16-bit	32-bit	Description: Control ma	trix pins 25–28, Channels A, B, C, and D.
Offset	800C	800C		
:	h	h		,
Relay	Bit	Bit	Function	Connection (H, L, Shield)
#			Cl. 1 4 Dt. 07	70 40 47 46 67 4 4 70 27 26 24
<u>K97</u>	0	0	Channel A, Pin 25.	J2-48, 47, 46. Channel A is J2-35, 36, 34.
K98	1	1	Channel B, Pin 25.	J2-48, 47, 46. Channel B is J2-32, 33, 31.
K99	2	2	Channel C, Pin 25.	J2-48, 47, 46. Channel C is J2-5, 6, 4.
K100	3	3	Channel D, Pin 25.	J2-48, 47, 46. Channel D is J2-2, 3, 1.
K101	4	4	Channel A, Pin 26.	J2-18, 17, 16. Channel A is J2-35, 36, 34.
K102	5	5	Channel B, Pin 26.	J2-18, 17, 16. Channel B is J2-32, 33, 31.
K103	6	6	Channel C, Pin 26.	J2-18, 17, 16. Channel C is J2-5, 6, 4.
K104	7	7	Channel D, Pin 26.	J2-18, 17, 16. Channel D is J2-2, 3, 1.
K105	8	8	Channel A, Pin 27	J2-45, 44, 43. Channel A is J2-35, 36, 34.
K106	9	9	Channel B, Pin 27.	J2-45, 44, 43. Channel B is J2-32, 33, 31.
K107	10	10	Channel C, Pin 27.	J2-45, 44, 43. Channel C is J2-5, 6, 4.
K108	11	11	Channel D, Pin 27.	J2-45, 44, 43. Channel D is J2-2, 3, 1.
K109	12	12	Channel A, Pin 28.	J2-15, 14, 13. Channel A is J2-35, 36, 34.
K110	13	13	Channel B, Pin 28.	J2-15, 14, 13. Channel B is J2-32, 33, 31.
K111	14	14	Channel C, Pin 28.	J2-15, 14, 13. Channel C is J2-5, 6, 4.
K112	15	15	Channel D, Pin 28.	J2-15, 14, 13. Channel D is J2-2, 3, 1.
Mode:	16-bit	32-bit	Description: Control ma	trix pins 29–32, Channels A, B, C, and D.
Mode: Offset	16-bit 800E	32-bit 800C	Description: Control ma	trix pins 29–32, Channels A, B, C, and D.
			Description: Control ma	trix pins 29–32, Channels A, B, C, and D.
Offset : Relay	800E	800C	Description: Control ma	trix pins 29–32, Channels A, B, C, and D. Connection (H, L, Shield)
Offset : Relay #	800E h Bit	800C h Bit	Function	Connection (H, L, Shield)
Offset : Relay # K113	800E h Bit	800C h Bit	Function Channel A, Pin 29.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34.
Offset : Relay # K113 K114	800E h Bit	800C h Bit 16	Function Channel A, Pin 29. Channel B, Pin 29.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115	800E h Bit 0 1	800C h Bit 16 17 18	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116	800E h Bit 0 1 2 3	800C h Bit 16 17 18 19	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1.
Offset : Relay # K113 K114 K115 K116 K117	800E h Bit 0 1 2 3 4	800C h Bit 16 17 18 19 20	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34.
Offset : Relay # K113 K114 K115 K116 K117 K118	800E h Bit 0 1 2 3 4 5	800C h Bit 16 17 18 19 20 21	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119	800E h Bit 0 1 2 3 4 5 6	800C h Bit 16 17 18 19 20 21 22	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120	800E h Bit 0 1 2 3 4 5 6 7	800C h Bit 16 17 18 19 20 21 22 23	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121	800E h Bit 0 1 2 3 4 5 6 7	800C h Bit 16 17 18 19 20 21 22 23 24	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel D, Pin 31.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122	800E h Bit 0 1 2 3 4 5 6 7 8	800C h Bit 16 17 18 19 20 21 22 23 24 25	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel D, Pin 31. Channel B, Pin 31.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34. J2-39, 38, 37. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123	800E h Bit 0 1 2 3 4 5 6 7 8 9	800C h Bit 16 17 18 19 20 21 22 23 24 25 26	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel D, Pin 31. Channel B, Pin 31. Channel C, Pin 31.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34. J2-39, 38, 37. Channel B is J2-32, 33, 31. J2-39, 38, 37. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123 K124	800E h Bit 0 1 2 3 4 5 6 7 8 9	800C h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel D, Pin 31. Channel B, Pin 31. Channel C, Pin 31. Channel C, Pin 31.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34. J2-39, 38, 37. Channel C is J2-5, 6, 4. J2-39, 38, 37. Channel C is J2-5, 6, 4. J2-39, 38, 37. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123 K124 K125	800E h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12	800C h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel A, Pin 31. Channel B, Pin 31. Channel C, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel A, Pin 32.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34. J2-39, 38, 37. Channel B is J2-32, 33, 31. J2-39, 38, 37. Channel C is J2-5, 6, 4. J2-39, 38, 37. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel D is J2-2, 3, 1.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123 K124 K125 K126	800E h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12 13	800C h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28 29	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel D, Pin 31. Channel B, Pin 31. Channel C, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel D, Pin 32. Channel B, Pin 32. Channel B, Pin 32.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34. J2-39, 38, 37. Channel B is J2-32, 33, 31. J2-39, 38, 37. Channel C is J2-5, 6, 4. J2-39, 38, 37. Channel D is J2-2, 3, 1. J2-9, 8, 7. Channel A is J2-35, 36, 34. J2-9, 8, 7. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123 K124 K125	800E h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12	800C h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Function Channel A, Pin 29. Channel B, Pin 29. Channel C, Pin 29. Channel D, Pin 29. Channel A, Pin 30. Channel B, Pin 30. Channel C, Pin 30. Channel D, Pin 30. Channel A, Pin 31. Channel B, Pin 31. Channel C, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel D, Pin 31. Channel A, Pin 32.	Connection (H, L, Shield) J2-42, 41, 40. Channel A is J2-35, 36, 34. J2-42, 41, 40. Channel B is J2-32, 33, 31. J2-42, 41, 40. Channel C is J2-5, 6, 4. J2-42, 41, 40. Channel D is J2-2, 3, 1. J2-12, 11, 10. Channel A is J2-35, 36, 34. J2-12, 11, 10. Channel B is J2-32, 33, 31. J2-12, 11, 10. Channel C is J2-5, 6, 4. J2-12, 11, 10. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel A is J2-35, 36, 34. J2-39, 38, 37. Channel B is J2-32, 33, 31. J2-39, 38, 37. Channel C is J2-5, 6, 4. J2-39, 38, 37. Channel D is J2-2, 3, 1. J2-39, 38, 37. Channel D is J2-2, 3, 1.

Table 9-2. Relays, Motherboard, PCB SCH85002830, Continued

Mode: Offset :	16-bit 8010h	32-bit 8010h	Definition: Control matrix isolation	on relays, Channels A, B, C, and D.
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K129	0	0	Isolation Channel A, Group 1.	J2-35, 36, 34.
K130	1	1	Isolation Channel B, Group 1.	<i>J2-32, 33, 31.</i>
K131	2	2	Isolation Channel C, Group 1.	J2-5, 6, 4.
K132	3	3	Isolation Channel D, Group 1.	J2-2, 3, 1.
K133	4	4	Isolation Channel A, Group 2.	J2-35, 36, 34.
K134	5	5	Isolation Channel B, Group 2.	J2-32, 33, 31.
K135	6	6	Isolation Channel C, Group 2.	J2-5, 6, 4.
K136	7	7	Isolation Channel D, Group 2.	J2-2, 3, 1.
	8	8	Not used.	Not used.
	9	9	Not used.	Not used.
	10	10	Not used.	Not used.
	11	11	Not used.	Not used.
	12	12	Not used.	Not used.
	13	13	Not used.	Not used.
	14	14	Not used.	Not used.
_	15	15	Not used.	Not used.

Table 9-3. Relays, Daughterboard, PCB scн85002880

Mode: Offset :	16-bit 8020h	32-bit 8020h	Description: Control m Daughtert	atrix pins 33-36, Channels A, B, C, and D, poard #1.
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K1	0	0	Channel A, Pin 33.	J3-50, 49, 48. Channel A is J2-35, 36, 34.
K2	1	1	Channel B, Pin 33.	J3-50, 49, 48. Channel B is J2-32, 33, 31.
K3	2	2	Channel C, Pin 33.	J3-50, 49, 48. Channel C is J2-5, 6, 4.
K4	3	3	Channel D, Pin 33.	J3-50, 49, 48. Channel D is J2-2, 3, 1.
K5	4	4	Channel A, Pin 34.	J3-25, 24, 23. Channel A is J2-35, 36, 34.
K6	5	5	Channel B, Pin 34.	J3-25, 24, 23. Channel B is J2-32, 33, 31.
K7	6	6	Channel C, Pin 34.	J3-25, 24, 23. Channel C is J2-5, 6, 4.
K8	7	7	Channel D, Pin 34.	J3-25, 24, 23. Channel D is J2-2, 3, 1.
K9	8	8	Channel A, Pin 35.	J3-47, 46, 45. Channel A is J2-35, 36, 34.
K10	9	9	Channel B, Pin 35.	J3-47, 46, 45. Channel B is J2-32, 33, 31.
K11	10	10	Channel C, Pin 35.	J3-47, 46, 45. Channel C is J2-5, 6, 4.
K12	11	11	Channel D, Pin 35.	J3-47, 46, 45. Channel D is J2-2, 3, 1.
K13	12	12	Channel A, Pin 36.	J3-22, 21, 20. Channel A is J2-35, 36, 34.
K14	13	13	Channel B, Pin 36.	J3-22, 21, 20. Channel B is J2-32, 33, 31.
K15	14	14	Channel C, Pin 36.	J3-22, 21, 20. Channel C is J2-5, 6, 4.
K16	15	15	Channel D, Pin 36.	J3-22, 21, 20. Channel D is J2-2, 3, 1.
Mode:	16-bit	32-bit		atrix pins 3740, Channels A, B, C, and D,
Mode: Offset	16-bit 8022h	32-bit 8020h	Description: Control m Daughterl	
Offset :	8022h	8020h	Daughterl	ooard #1.
Offset : Relay	8022h	8020h	Daughterl	ooard #1.
Offset : Relay #	8022h Bit	8020h Bit	Daughtert Function	Connection (H, L, Shield)
Offset : Relay # K17	8022h Bit	8020h Bit 16	Daughtert Function Channel A, Pin 37.	Connection (H, L, Shield) [J3-44, 43, 42. Channel A is J2-35, 36, 34.]
Offset : Relay # K17 K18	8022h Bit 0 1	8020h Bit 16 17	Daughtert Function Channel A, Pin 37. Channel B, Pin 37.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19	8022h Bit 0 1 2	8020h Bit 16 17 18	Daughtert Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37.	Connection (H, L, Shield) [J3-44, 43, 42. Channel A is J2-35, 36, 34.] [J3-44, 43, 42. Channel B is J2-32, 33, 31.] [J3-44, 43, 42. Channel C is J2-5, 6, 4.]
Offset : Relay # K17 K18 K19 K20	8022h Bit 0 1 2 3	8020h Bit 16 17 18 19	Daughtert Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1.
Offset : Relay # K17 K18 K19 K20 K21	8022h Bit 0 1 2 3 4	8020h Bit 16 17 18 19 20	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel D, Pin 38.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34.
Offset : Relay # K17 K18 K19 K20 K21 K22	8022h Bit 0 1 2 3 4 5	8020h Bit 16 17 18 19 20 21	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel A, Pin 38. Channel B, Pin 38.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23	8022h Bit 0 1 2 3 4 5 6	8020h Bit 16 17 18 19 20 21 22	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel D, Pin 38. Channel B, Pin 38. Channel C, Pin 38.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31. J3-19, 18, 17. Channel C is J2-5, 6, 4.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24	8022h Bit 0 1 2 3 4 5 6 7	8020h Bit 16 17 18 19 20 21 22 23	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel A, Pin 38. Channel B, Pin 38. Channel C, Pin 38. Channel C, Pin 38.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel D is J2-2, 3, 1.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27	8022h Bit 0 1 2 3 4 5 6 7 8	8020h Bit 16 17 18 19 20 21 22 23 24	Taughtert Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 38. Channel B, Pin 38. Channel C, Pin 38. Channel C, Pin 38. Channel D, Pin 38. Channel D, Pin 38. Channel D, Pin 39.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel D is J2-2, 3, 1.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28	8022h Bit 0 1 2 3 4 5 6 7 8 9	8020h Bit 16 17 18 19 20 21 22 23 24 25	Taughtert Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel B, Pin 38. Channel B, Pin 38. Channel C, Pin 38. Channel D, Pin 38. Channel D, Pin 38. Channel B, Pin 39. Channel B, Pin 39.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel D is J2-2, 3, 1. J3-41, 40, 39. Channel A is J2-35, 36, 34. J3-41, 40, 39. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29	8022h Bit 0 1 2 3 4 5 6 7 8 9 10	8020h Bit 16 17 18 19 20 21 22 23 24 25 26	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel A, Pin 38. Channel B, Pin 38. Channel C, Pin 38. Channel D, Pin 38. Channel D, Pin 38. Channel D, Pin 39. Channel B, Pin 39. Channel B, Pin 39.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel D is J2-2, 3, 1. J3-41, 40, 39. Channel B is J2-35, 36, 34. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel D is J2-2, 3, 1. J3-16, 15, 14. Channel A is J2-35, 36, 34.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30	8022h Bit 0 1 2 3 4 5 6 7 8 9 10 11	8020h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel A, Pin 38. Channel B, Pin 38. Channel C, Pin 38. Channel D, Pin 38. Channel D, Pin 38. Channel D, Pin 39. Channel B, Pin 39. Channel C, Pin 39. Channel D, Pin 39.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel D is J2-2, 3, 1. J3-41, 40, 39. Channel A is J2-35, 36, 34. J3-41, 40, 39. Channel B is J2-32, 33, 31. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel D is J2-2, 3, 1. J3-16, 15, 14. Channel A is J2-35, 36, 34. J3-16, 15, 14. Channel B is J2-32, 33, 31.
Offset : Relay # K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29	8022h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12	8020h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Function Channel A, Pin 37. Channel B, Pin 37. Channel C, Pin 37. Channel D, Pin 37. Channel B, Pin 38. Channel B, Pin 38. Channel C, Pin 38. Channel D, Pin 38. Channel D, Pin 39. Channel B, Pin 39. Channel C, Pin 39. Channel C, Pin 39. Channel D, Pin 39. Channel A, Pin 40.	Connection (H, L, Shield) J3-44, 43, 42. Channel A is J2-35, 36, 34. J3-44, 43, 42. Channel B is J2-32, 33, 31. J3-44, 43, 42. Channel C is J2-5, 6, 4. J3-44, 43, 42. Channel D is J2-2, 3, 1. J3-19, 18, 17. Channel A is J2-35, 36, 34. J3-19, 18, 17. Channel B is J2-32, 33, 31. J3-19, 18, 17. Channel C is J2-5, 6, 4. J3-19, 18, 17. Channel D is J2-2, 3, 1. J3-41, 40, 39. Channel B is J2-35, 36, 34. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel C is J2-5, 6, 4. J3-41, 40, 39. Channel D is J2-2, 3, 1. J3-16, 15, 14. Channel A is J2-35, 36, 34.

 $Table\ 9\text{-}3.\ Relays,\ Daughterboard,\ PCB\ SCH85002880,$

Mode: Offset :	16-bit 8024h	32-bit 8024h	Description: Control matrix 41-44, Channels A, B, C, and D, Daughterboard #1.	
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K33	0	0	Channel A, Pin 41.	J3-38, 37, 36. Channel A is J2-35, 36, 34.
K34	1	1	Channel B, Pin 41.	J3-38, 37, 36. Channel B is J2-32, 33, 31.
K35	2	2	Channel C, Pin 41.	J3-38, 37, 36. Channel C is J2-5, 6, 4.
K36	3	3	Channel D, Pin 41.	J3-38, 37, 36. Channel D is J2-2, 3, 1.
K37	4	4	Channel A, Pin 42.	J3-13, 12, 11. Channel A is J2-35, 36, 34.
K38	5	5	Channel B, Pin 42.	J3-13, 12, 11. Channel B is J2-32, 33, 31.
K39	6	6	Channel C, Pin 42.	J3-13, 12, 11. Channel C is J2-5, 6, 4.
K40	7	7	Channel D, Pin 42.	J3-13, 12, 11. Channel D is J2-2, 3, 1.
K41	8	8	Channel A, Pin 43.	J3-35, 34, 33. Channel A is J2-35, 36, 34.
K42	9	9	Channel B, Pin 43.	J3-35, 34, 33. Channel B is J2-32, 33, 31.
K43	10	10	Channel C, Pin 43.	J3-35, 34, 33. Channel C is J2-5, 6, 4.
K44	11	11	Channel D, Pin 43.	J3-35, 34, 33. Channel D is J2-2, 3, 1.
K45	12	12	Channel A, Pin 44.	J3-10, 9, 8. Channel A is J2-35, 36, 34.
K46	13	13	Channel B, Pin 44.	J3-10, 9, 8. Channel B is J2-32, 33, 31.
K47	14	14	Channel C, Pin 44.	J3-10, 9, 8. Channel C is J2-5, 6, 4.
K48	15	15	Channel D, Pin 44.	J3-10, 9, 8. Channel D is J2-2, 3, 1.
Mode:	16-bit	32-bit	Description: Control ma	trix pins 45-48, Channels A, B, C, and D,
Mode: Offset	16-bit 8026h	32-bit 8024h	Description: Control man Daughterbo	trix pins 4548, Channels A, B, C, and D, ard #1.
Offset :	8026h	8024h	Daughterbo	ard #1.
Offset : Relay #	8026h Bit	8024h Bit	Daughterbo Function	ard #1. Connection (H, L, Shield)
Offset : Relay # K49	8026h Bit	8024h Bit 16	Daughterbo Function Channel A, Pin 45.	ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34.
Offset : Relay # K49 K50	8026h Bit 0 1	8024h Bit 16 17	Daughterbo Function Channel A, Pin 45. Channel B, Pin 45.	ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31.
Offset : Relay # K49 K50 K51	8026h Bit 0 1 2	8024h Bit 16 17 18	Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45.	Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4.
Offset : Relay # K49 K50 K51	8026h Bit 0 1 2 3	8024h Bit 16 17 18 19	Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45.	Tonnection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1.
Offset : Relay # K49 K50 K51 K52 K53	8026h Bit 0 1 2 3 4	8024h Bit 16 17 18 19 20	Daughterbo Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46.	ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34.
Offset : Relay # K49 K50 K51 K52 K53	8026h Bit 0 1 2 3 4 5	8024h Bit 16 17 18 19 20 21	Daughterbo Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel B, Pin 46.	ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34. J3-7, 6, 5. Channel B is J2-32, 33, 31.
Offset : Relay # K49 K50 K51 K52 K53 K54 K55	8026h Bit 0 1 2 3 4 5 6	8024h Bit 16 17 18 19 20 21 22	Daughterbo Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel B, Pin 46. Channel C, Pin 46.	ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34. J3-7, 6, 5. Channel B is J2-32, 33, 31. J3-7, 6, 5. Channel C is J2-5, 6, 4.
Offset : Relay # K49 K50 K51 K52 K53 K54 K55	8026h Bit 0 1 2 3 4 5 6 7	8024h Bit 16 17 18 19 20 21 22 23	Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel B, Pin 46. Channel C, Pin 46. Channel C, Pin 46. Channel D, Pin 46.	Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34. J3-7, 6, 5. Channel B is J2-32, 33, 31. J3-7, 6, 5. Channel C is J2-5, 6, 4. J3-7, 6, 5. Channel D is J2-2, 3, 1.
Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56	8026h Bit 0 1 2 3 4 5 6 7 8	8024h Bit 16 17 18 19 20 21 22 23 24	Tanghterbo Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel B, Pin 46. Channel C, Pin 46. Channel D, Pin 46. Channel D, Pin 47.	Ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34. J3-7, 6, 5. Channel B is J2-32, 33, 31. J3-7, 6, 5. Channel C is J2-5, 6, 4. J3-7, 6, 5. Channel D is J2-2, 3, 1. J3-29, 28, 27. Channel A is J2-35, 36, 34.
Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58 K59	8026h Bit 0 1 2 3 4 5 6 7 8 9 10 11	8024h Bit 16 17 18 19 20 21 22 23 24 25	Tunction Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel C, Pin 46. Channel D, Pin 46. Channel D, Pin 47. Channel B, Pin 47. Channel C, Pin 47. Channel D, Pin 47.	ard #1. Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34. J3-7, 6, 5. Channel B is J2-32, 33, 31. J3-7, 6, 5. Channel C is J2-5, 6, 4. J3-7, 6, 5. Channel D is J2-2, 3, 1. J3-29, 28, 27. Channel B is J2-32, 33, 31. J3-29, 28, 27. Channel B is J2-32, 33, 31. J3-29, 28, 27. Channel C is J2-5, 6, 4. J3-29, 28, 27. Channel C is J2-5, 6, 4.
Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58 K59 K60 K61	8026h Bit 0 1 2 3 4 5 6 7 8 9 10	8024h Bit 16 17 18 19 20 21 22 23 24 25 26	Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel B, Pin 46. Channel C, Pin 46. Channel D, Pin 46. Channel D, Pin 47. Channel B, Pin 47. Channel B, Pin 47.	Connection (H, L, Shield) [3-32, 31, 30. Channel A is J2-35, 36, 34.] [3-32, 31, 30. Channel B is J2-32, 33, 31.] [3-32, 31, 30. Channel C is J2-5, 6, 4.] [3-32, 31, 30. Channel D is J2-2, 3, 1.] [3-7, 6, 5. Channel A is J2-35, 36, 34.] [3-7, 6, 5. Channel B is J2-32, 33, 31.] [3-7, 6, 5. Channel C is J2-5, 6, 4.] [3-7, 6, 5. Channel D is J2-2, 3, 1.] [3-29, 28, 27. Channel A is J2-35, 36, 34.] [3-29, 28, 27. Channel B is J2-32, 33, 31.] [3-29, 28, 27. Channel C is J2-5, 6, 4.] [3-29, 28, 27. Channel D is J2-2, 3, 1.] [3-4, 3, 2. Channel A is J2-35, 36, 34.]
Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58 K59 K60 K61 K62	8026h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12 13	8024h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Function Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel A, Pin 46. Channel B, Pin 46. Channel C, Pin 46. Channel D, Pin 46. Channel D, Pin 47. Channel B, Pin 47. Channel C, Pin 47. Channel D, Pin 47. Channel D, Pin 47. Channel D, Pin 48. Channel B, Pin 48.	Connection (H, L, Shield) J3-32, 31, 30. Channel A is J2-35, 36, 34. J3-32, 31, 30. Channel B is J2-32, 33, 31. J3-32, 31, 30. Channel C is J2-5, 6, 4. J3-32, 31, 30. Channel D is J2-2, 3, 1. J3-7, 6, 5. Channel A is J2-35, 36, 34. J3-7, 6, 5. Channel B is J2-32, 33, 31. J3-7, 6, 5. Channel C is J2-5, 6, 4. J3-7, 6, 5. Channel D is J2-2, 3, 1. J3-29, 28, 27. Channel A is J2-35, 36, 34. J3-29, 28, 27. Channel B is J2-32, 33, 31. J3-29, 28, 27. Channel C is J2-5, 6, 4. J3-29, 28, 27. Channel C is J2-5, 6, 4. J3-29, 28, 27. Channel D is J2-2, 3, 1. J3-4, 3, 2. Channel A is J2-35, 36, 34. J3-4, 3, 2. Channel B is J2-32, 33, 31.
Offset : Relay # K49 K50 K51 K52 K53 K54 K55 K56 K57 K58 K59 K60 K61	8026h Bit 0 1 2 3 4 5 6 7 8 9 10 11 12	8024h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Tunction Channel A, Pin 45. Channel B, Pin 45. Channel C, Pin 45. Channel D, Pin 45. Channel B, Pin 46. Channel B, Pin 46. Channel C, Pin 46. Channel D, Pin 46. Channel D, Pin 47. Channel B, Pin 47. Channel C, Pin 47. Channel D, Pin 47. Channel D, Pin 47. Channel D, Pin 47. Channel D, Pin 48.	Connection (H, L, Shield) [3-32, 31, 30. Channel A is J2-35, 36, 34.] [3-32, 31, 30. Channel B is J2-32, 33, 31.] [3-32, 31, 30. Channel C is J2-5, 6, 4.] [3-32, 31, 30. Channel D is J2-2, 3, 1.] [3-7, 6, 5. Channel A is J2-35, 36, 34.] [3-7, 6, 5. Channel B is J2-32, 33, 31.] [3-7, 6, 5. Channel C is J2-5, 6, 4.] [3-7, 6, 5. Channel D is J2-2, 3, 1.] [3-29, 28, 27. Channel A is J2-35, 36, 34.] [3-29, 28, 27. Channel B is J2-32, 33, 31.] [3-29, 28, 27. Channel C is J2-5, 6, 4.] [3-29, 28, 27. Channel D is J2-2, 3, 1.] [3-4, 3, 2. Channel A is J2-35, 36, 34.]

Table 9-3. Relays, Daughterboard, PCB SCH85002880,

Mode: Offset	16-bit 8028h	32-bit 8028h	Description: Control matrix 49-52, Channels A, B, C, and D, Daughterboard #1.	
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K65	0	0	Channel A, Pin 49.	J4-50, 49, 48. Channel A is J2-35, 36, 34.
K66	1	1	Channel B, Pin 49.	J4-50, 49, 48. Channel B is J2-32, 33, 31.
K67	2	2	Channel C, Pin 49.	J4-50, 49, 48. Channel C is J2-5, 6, 4.
K68	3	3	Channel D, Pin 49.	J4-50, 49, 48. Channel D is J2-2, 3, 1.
K69	4	4	Channel A, Pin 50.	J4-25, 24, 23. Channel A is J2-35, 36, 34.
K70	5	5	Channel B, Pin 50.	J4-25, 24, 23. Channel B is J2-32, 33, 31.
K71	6	6	Channel C, Pin 50.	J4-25, 24, 23. Channel C is J2-5, 6, 4.
K72	7	7	Channel D, Pin 50.	J4-25, 24, 23. Channel D is J2-2, 3, 1.
K73	8	8	Channel A, Pin 51.	J4-47, 46, 45. Channel A is J2-35, 36, 34.
K74	9	9	Channel B, Pin 51.	J4-47, 46, 45. Channel B is J2-32, 33, 31.
K75	10	10	Channel C, Pin 51.	J4-47, 46, 45. Channel C is J2-5, 6, 4.
K76	11	11	Channel D, Pin 51.	J4-47, 46, 45. Channel D is J2-2, 3, 1.
K77	12	12	Channel A, Pin 52.	J4-22, 21, 20. Channel A is J2-35, 36, 34.
K78	13	13	Channel B, Pin 52.	J4-22, 21, 20. Channel B is J2-32, 33, 31.
K79	14	14	Channel C, Pin 52.	J4-22, 21, 20. Channel C is J2-5, 6, 4.
K80	15	15	Channel D, Pin 52.	J4-22, 21, 20. Channel D is J2-2, 3, 1.
Mode: Offset	16-bit 802A h	32-bit 8028h	Daughterbo	
	802A			
Offset : Relay	802A h	8028h	Daughterbo	ard #1.
Offset : Relay #	802A h Bit	8028h Bit	Daughterbo	Connection (H, L, Shield)
Offset : Relay # K81	802A h Bit	8028h Bit 16	Daughterbo Function Channel A, Pin 53.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34.
Offset : Relay # K81 K82	802A h Bit	8028h Bit 16 17	Daughterbo Function Channel A, Pin 53. Channel B, Pin 53.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31.
Offset : Relay # K81 K82 K83	802A h Bit 0 1	8028h Bit 16 17 18	Daughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4.
Offset : Relay # K81 K82 K83	802A h Bit 0 1 2 3	8028h Bit 16 17 18 19	Daughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53.	Tard #1. Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-44, 43, 42. Channel D is J2-2, 3, 1.
Offset : Relay # K81 K82 K83 K84 K85	802A h Bit 0 1 2 3 4	8028h Bit 16 17 18 19 20	Daughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel A, Pin 54.	Tard #1. Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-44, 43, 42. Channel D is J2-2, 3, 1. J4-19, 18, 17. Channel A is J2-35, 36, 34.
Offset : Relay # K81 K82 K83 K84 K85	802A h Bit 0 1 2 3 4 5	8028h Bit 16 17 18 19 20 21	Daughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel A, Pin 54. Channel B, Pin 54.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-44, 43, 42. Channel D is J2-2, 3, 1. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31.
Offset : Relay # K81 K82 K83 K84 K85 K86	802A h Bit 0 1 2 3 4 5	8028h Bit 16 17 18 19 20 21 22	Tanghterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel A, Pin 54. Channel B, Pin 54. Channel C, Pin 54.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-44, 43, 42. Channel D is J2-2, 3, 1. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4.
Offset : Relay # K81 K82 K83 K84 K85 K86 K87	802A h Bit 0 1 2 3 4 5 6	8028h Bit 16 17 18 19 20 21 22 23	Taughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel A, Pin 54. Channel B, Pin 54. Channel C, Pin 54. Channel D, Pin 54.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel C is J2-5, 6, 4.
Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88	802A h Bit 0 1 2 3 4 5 6 7	8028h Bit 16 17 18 19 20 21 22 23 24	Taughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel A, Pin 54. Channel B, Pin 54. Channel C, Pin 54. Channel D, Pin 54. Channel D, Pin 55.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-49, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel D is J2-2, 3, 1. J4-41, 40, 39. Channel A is J2-35, 36, 34.
Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89	802A h Bit 0 1 2 3 4 5 6 7	8028h Bit 16 17 18 19 20 21 22 23 24 25	Taughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel B, Pin 54. Channel C, Pin 54. Channel C, Pin 54. Channel D, Pin 54. Channel D, Pin 55. Channel B, Pin 55.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-44, 43, 42. Channel D is J2-2, 3, 1. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel D is J2-2, 3, 1. J4-41, 40, 39. Channel A is J2-35, 36, 34. J4-41, 40, 39. Channel B is J2-32, 33, 31.
Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89 K90	802A h Bit 0 1 2 3 4 5 6 7 8 9	8028h Bit 16 17 18 19 20 21 22 23 24 25 26	Tanghterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel A, Pin 54. Channel B, Pin 54. Channel C, Pin 54. Channel D, Pin 54. Channel D, Pin 55. Channel B, Pin 55. Channel B, Pin 55.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel D is J2-2, 3, 1. J4-41, 40, 39. Channel A is J2-35, 36, 34. J4-41, 40, 39. Channel B is J2-32, 33, 31. J4-41, 40, 39. Channel C is J2-5, 6, 4.
Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89 K90 K91 K92	802A h Bit 0 1 2 3 4 5 6 7 8 9 10	8028h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Taughterbo Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 54. Channel B, Pin 54. Channel C, Pin 54. Channel D, Pin 54. Channel D, Pin 55. Channel B, Pin 55. Channel C, Pin 55. Channel C, Pin 55. Channel D, Pin 55.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel D is J2-2, 3, 1. J4-41, 40, 39. Channel B is J2-32, 33, 31. J4-41, 40, 39. Channel B is J2-32, 33, 31. J4-41, 40, 39. Channel C is J2-5, 6, 4. J4-41, 40, 39. Channel C is J2-5, 6, 4.
Offset : Relay # K81 K82 K83 K84 K85 K86 K87 K88 K89 K90 K91 K92 K93	802A h Bit 0 1 2 3 4 5 6 7 8 9 10 11	8028h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Function Channel A, Pin 53. Channel B, Pin 53. Channel C, Pin 53. Channel D, Pin 53. Channel A, Pin 54. Channel B, Pin 54. Channel C, Pin 54. Channel D, Pin 54. Channel D, Pin 55. Channel B, Pin 55. Channel C, Pin 55. Channel C, Pin 55. Channel D, Pin 55. Channel D, Pin 55. Channel A, Pin 56.	Connection (H, L, Shield) J4-44, 43, 42. Channel A is J2-35, 36, 34. J4-54, 53, 52. Channel B is J2-32, 33, 31. J4-44, 43, 42. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel A is J2-35, 36, 34. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel B is J2-32, 33, 31. J4-19, 18, 17. Channel C is J2-5, 6, 4. J4-19, 18, 17. Channel D is J2-2, 3, 1. J4-41, 40, 39. Channel A is J2-35, 36, 34. J4-41, 40, 39. Channel B is J2-32, 33, 31. J4-41, 40, 39. Channel C is J2-5, 6, 4. J4-41, 40, 39. Channel C is J2-5, 6, 4. J4-41, 40, 39. Channel D is J2-2, 3, 1. J4-16, 15, 14. Channel A is J2-35, 36, 34.

 $Table\ 9\text{-}3.\ Relays,\ Daughterboard,\ PCB\ SCH85002880,$

		1		
Mode:	16-bit	32-bit	Description: Control matrix 57-60, Channels A, B, C, and D,	
Offset	802C	802C	Daughterboard #1.	
:	h	h		T
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K97	0	0	Channel A, Pin 57.	J4-38, 37, 36. Channel A is J2-35, 36, 34.
K98	1	1	Channel B, Pin 57.	J4-38, 37, 36. Channel B is J2-32, 33, 31.
K99	2	2	Channel C, Pin 57.	J4-38, 37, 36. Channel C is J2-5, 6, 4.
K100	3	3	Channel D, Pin 57.	J4-38, 37, 36. Channel D is J2-2, 3, 1.
K101	4	4	Channel A, Pin 58.	J4-13, 12, 11. Channel A is J2-35, 36, 34.
K102	5	5	Channel B, Pin 58.	J4-13, 12, 11. Channel B is J2-32, 33, 31.
K103	6	6	Channel C, Pin 58.	J4-13, 12, 11. Channel C is J2-5, 6, 4.
K104	7	7	Channel D, Pin 58.	J4-13, 12, 11. Channel D is J2-2, 3, 1.
K105	8	8	Channel A, Pin 59.	J4-35, 34, 33. Channel A is J2-35, 36, 34.
K106	9	9	Channel B, Pin 59.	J4-35, 34, 33. Channel B is J2-32, 33, 31.
K107	10	10	Channel C, Pin 59.	J4-35, 34, 33. Channel C is J2-5, 6, 4.
K108	11	11	Channel D, Pin 59.	J4-35, 34, 33. Channel D is J2-2, 3, 1.
K109	12	12	Channel A, Pin 60.	J4-10, 9, 8. Channel A is J2-35, 36, 34.
K110	13	13	Channel B, Pin 60.	J4-10, 9, 8. Channel B is J2-32, 33, 31.
K111	14	14	Channel C, Pin 60.	J4-10, 9, 8. Channel C is J2-5, 6, 4.
K112	15	15	Channel D, Pin 60.	J4-10, 9, 8. Channel D is J2-2, 3, 1.
Mode:	16-bit	32-bit	Description: Control ma	trix tins 61-64 Channels A B C and D
Mode:	16-bit 802E	32-bit 802C		trix pins 61-64, Channels A, B, C, and D, ard #1.
Mode: Offset :	16-bit 802E h	32-bit 802C h	Description: Control ma Daughterbo	
Offset : Relay	802E	802C		
Offset : Relay #	802E h Bit	802C h Bit	Daughterbo Function	Connection (H, L, Shield)
Offset : Relay # K113	802E h Bit	802C h Bit	Daughterbo Function Channel A, Pin 61.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34.
Offset : Relay # K113 K114	802E h Bit	802C h Bit	Daughterbo Function Channel A, Pin 61. Channel B, Pin 61.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115	802E h Bit 0 1	802C h Bit 16 17 18	Daughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116	802E h Bit 0 1 2 3	802C h Bit 16 17 18 19	Daughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1.
Offset : Relay # K113 K114 K115 K116 K117	802E h Bit 0 1 2 3 4	802C h Bit 16 17 18 19 20	Daughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34.
Offset : Relay # K113 K114 K115 K116	802E h Bit 0 1 2 3	802C h Bit 16 17 18 19	Daughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62. Channel B, Pin 62.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115 K116 K117	802E h Bit 0 1 2 3 4 5	802C h Bit 16 17 18 19 20 21	Daughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31. J4-7, 6, 5. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116 K117 K118	802E h Bit 0 1 2 3 4 5	802C h Bit 16 17 18 19 20 21 22	Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62. Channel B, Pin 62. Channel C, Pin 62.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119	802E h Bit 0 1 2 3 4 5 6	802C h Bit 16 17 18 19 20 21 22 23	Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62. Channel B, Pin 62. Channel C, Pin 62. Channel C, Pin 62. Channel D, Pin 62.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31. J4-7, 6, 5. Channel C is J2-5, 6, 4. J4-7, 6, 5. Channel D is J2-2, 3, 1.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121	802E h Bit 0 1 2 3 4 5 6 7	802C h Bit 16 17 18 19 20 21 22 23 24	Taughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62. Channel B, Pin 62. Channel C, Pin 62. Channel D, Pin 62. Channel D, Pin 63.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31. J4-7, 6, 5. Channel C is J2-5, 6, 4. J4-7, 6, 5. Channel D is J2-2, 3, 1. J4-29, 28, 27. Channel A is J2-35, 36, 34.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122	802E h Bit 0 1 2 3 4 5 6 7	802C h Bit 16 17 18 19 20 21 22 23 24 25	Taughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel B, Pin 62. Channel B, Pin 62. Channel C, Pin 62. Channel D, Pin 62. Channel D, Pin 63. Channel B, Pin 63.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel C is J2-5, 6, 4. J4-7, 6, 5. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel D is J2-2, 3, 1. J4-29, 28, 27. Channel A is J2-35, 36, 34. J4-29, 28, 27. Channel B is J2-32, 33, 31.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123	802E h Bit 0 1 2 3 4 5 6 7 8 9	802C h Bit 16 17 18 19 20 21 22 23 24 25 26	Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62. Channel B, Pin 62. Channel C, Pin 62. Channel D, Pin 62. Channel D, Pin 63. Channel B, Pin 63. Channel C, Pin 63.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31. J4-7, 6, 5. Channel C is J2-5, 6, 4. J4-7, 6, 5. Channel D is J2-2, 3, 1. J4-29, 28, 27. Channel A is J2-35, 36, 34. J4-29, 28, 27. Channel B is J2-32, 33, 31. J4-29, 28, 27. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123 K124	802E h Bit 0 1 2 3 4 5 6 7 8 9	802C h Bit 16 17 18 19 20 21 22 23 24 25 26 27	Taughterbo Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel A, Pin 62. Channel B, Pin 62. Channel D, Pin 62. Channel D, Pin 63. Channel B, Pin 63. Channel C, Pin 63. Channel C, Pin 63. Channel D, Pin 63.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31. J4-7, 6, 5. Channel C is J2-5, 6, 4. J4-7, 6, 5. Channel D is J2-2, 3, 1. J4-29, 28, 27. Channel B is J2-32, 33, 31. J4-29, 28, 27. Channel B is J2-32, 33, 31. J4-29, 28, 27. Channel C is J2-5, 6, 4. J4-29, 28, 27. Channel C is J2-5, 6, 4.
Offset : Relay # K113 K114 K115 K116 K117 K118 K119 K120 K121 K122 K123 K124 K125	802E h Bit 0 1 2 3 4 5 6 7 8 9 10 11	802C h Bit 16 17 18 19 20 21 22 23 24 25 26 27 28	Function Channel A, Pin 61. Channel B, Pin 61. Channel C, Pin 61. Channel D, Pin 61. Channel B, Pin 62. Channel B, Pin 62. Channel C, Pin 62. Channel D, Pin 62. Channel D, Pin 63. Channel C, Pin 63. Channel D, Pin 63. Channel A, Pin 64.	ard #1. Connection (H, L, Shield) J4-32, 31, 30. Channel A is J2-35, 36, 34. J4-32, 31, 30. Channel B is J2-32, 33, 31. J4-32, 31, 30. Channel C is J2-5, 6, 4. J4-32, 31, 30. Channel D is J2-2, 3, 1. J4-7, 6, 5. Channel A is J2-35, 36, 34. J4-7, 6, 5. Channel B is J2-32, 33, 31. J4-7, 6, 5. Channel C is J2-5, 6, 4. J4-7, 6, 5. Channel D is J2-2, 3, 1. J4-29, 28, 27. Channel A is J2-35, 36, 34. J4-29, 28, 27. Channel B is J2-32, 33, 31. J4-29, 28, 27. Channel C is J2-5, 6, 4. J4-29, 28, 27. Channel C is J2-5, 6, 4. J4-29, 28, 27. Channel D is J2-2, 3, 1. J4-4, 3, 2. Channel A is J2-35, 36, 34.

Table 9-3. Relays, Daughterboard, PCB SCH85002880,

Mode: Offset :	16-bit 8030h	32-bit 8030h	Definition: Control matrix isola Daughterboard #1.	ntion relays, Channels A, B, C, and D,
Relay #	Bit	Bit	Function	Connection (H, L, Shield)
K129	0	0	Isolation Channel A, Group 1.	J2-35, 36, 34.
K130	1	1	Isolation Channel B, Group 1.	J2-32, 33, 31.
K131	2	2	Isolation Channel C, Group 1.	J2-5, 6, 4.
K132	3	3	Isolation Channel D, Group 1.	J2-2, 3, 1.
K133	4	4	Isolation Channel A, Group 2.	J2-35, 36, 34.
K134	5	5	Isolation Channel B, Group 2.	J2-32, 33, 31.
K135	6	6	Isolation Channel C, Group 2.	J2-5, 6, 4.
K136	7	7	Isolation Channel D, Group 2.	J2-2, 3, 1.
_	8	8	Not used.	Not used.
	9	9	Not used.	Not used.
_	10	10	Not used.	Not used.
	11	11	Not used.	Not used.
	12	12	Not used.	Not used.
	13	13	Not used.	Not used.
	14	14	Not used.	Not used.
	15	15	Not used.	Not used.

Register Programming Technique

The ASCOR module registers listed in

Table 9-2 are accessed under VXI A24/A32 Address Mode as 16-bit words or 32-bit words. Since all 16 bits or 32 bits are programmed with a single write operation, care must be taken to preserve the state of bits that effect other functions. In order to avoid changing any other bits in a register use the following procedure:

- 1. Read the register first into memory.
- 1. Write only to the bit(s) in memory that you intend to change.
- 2. Write the new value back to the register.

Programming Examples

Example 1. Obtains the A24 Base Address using National Instruments NI-VXI GetDevInfo.

Procedure obtains the A24 Base Address using its base. The Logical Address is 5.

```
/* C code segment for obtaining the device's A24 Base Address */
         ret;
int16
uint16
                   = 5;
                           /* Logical Address */
uint16 field
                   = 12;
                            /* Base of A24 address space */
uint32
         baseA24;
/* Get the A24 Base Address */
ret = GetDevInfo (la, field, &baseA24);
/* Check for function error /
if (ret < 0)
         /* Error occurred during GetDevInfo. */;
```

Example 2. Obtains the A32 Base Address using National Instruments NI-VXI GetDevInfo.

Procedure obtains the A32 Base Address using its base. The Logical Address is 5.

```
/* C code segment for obtaining the device's A32 Base Address */
int16
         ret;
uint16
         la
                   = 5;
                             /* Logical Address */
                   = 12;
                             /* Base of A32 address space */
uint16
         field
         baseA32;
uint32
/* Get the A32 Base Address */
ret = GetDevInfo (la, field, &baseA32);
/* Check for function error */
if (ret < 0)
          /* Error occurred during GetDevInfo.*/;
```

Example 3. Writes to the first module register using National Instruments NI-VXI calls, A24 Address Mode, and 16-bit data.

Procedure writes the value 1000h to the first module register. The A24 Base Address is 200000h.

```
/* C code segment for writing the value 0x1000h to the first module */
/* Register, assuming an A24 Base Address of 200000h */
int16
         ret;
uint16
                       =2; /* A24, Nonprivileged data access, */
         accessparms
                              /* Motorola Byte Order */
uint32
         address;
                        =2; /* width = word (16 bits) */
uint16
         width
uint32
       value32;
address = 0x208000;
                             /* A24 Base Address + first module */
                             /* Register offset */
value32 = 0x1000;
                              /* Value to write to the first module */
                              /* Register */
/* Write to the First module register. */
ret = VXIout (accessparms, address, width, value32);
/* Check for write error. */
if (ret<0)
          /* Error occurred during write. */;
```

Example 4. Writes to the first module register using VXIplug&play VISA calls, A24
Address Mode, and 16-bit data.

Procedure writes the value 2000h to the first module register. The variable, "vi" references the Logical Address.

```
/* C code segment for writing the value 0x2000 to the first module */
/* Register */
ViStatus
            as3xxx_status;
ViSession vi;
                                /* vi from previous call to */
                                 /* as3xxx_init */
ViUlnt16 space=VI_A24_SPACE; /* A24 Address Space */
ViBusAddress offset=0x8000; /* first module register offset. */
ViUlnt16
            value16;
value16 = 0x2000;
                                 /* Value to write to the first */
                                 /* module register */
/* Write to the first module register. */
as3xxx_status = ViOut16 (vi, space, offset, value16);
/* Check for write error. */
if (as3xxx status < VI SUCCESS)
         /* Error occurred during write. */;
```

Example 5. Writes to the first module register using National Instruments NI-VXI calls, A32 Address Mode, and 32-bit data.

Procedure writes the value 10000h to the first module register. The A32 Base Address is 20000000h.

```
/* C code segment for writing the value 0x10000000 to the first */
/* module register, assuming an A32 Base Address of 20000000h */
int16
         ret;
uint16
                       =3; /* A32, Nonprivileged data access, */
         accessparms
                              /* Motorola Byte Order */
uint32
         address;
                        =4; /* width = long word (32 bits) */
uint16
       width
uint32  value32;
address = 0x20008000;
                             /* A32 Base Address + first module */
                              /* register offset */
value32 = 0x10000;
                              /* Value to write to the first module */
                              /* register */
/* Write to the First module register. */
ret = VXIout (accessparms, address, width, value32);
/* Check for write error. */
if (ret<0)
          /* Error occurred during write. */;
```

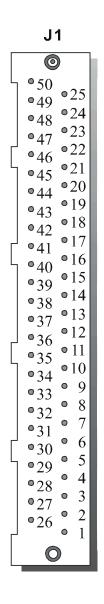
Example 6. Writes to the first module register using VXIplug&play VISA calls, A32 Address Mode, and 32-bit data.

Procedure writes a value to all bits of the first module register, assuming that A32 Address Space is configured. The variable, "vi" references the Logical Address.

```
/* C code segment for writing the value 0x10000000 to the first */
/* module register */
ViStatus
              as3xxx_status;
ViSession
                                  /* vi from previous call to */
              vi;
                                  /* as3xxx init */
ViUlnt16
           space=VI A32 SPACE; /* A32 Address Space */
ViBusAddress offset=0x8000; /* first module register offset. */
ViUlnt32
              value32;
Value32 = 0x10000000;
                             /* Value to write to the first module */
                             /* register */
/* Write to the first module register. */
as3xxx_status = ViOut32 (vi, space, offset, value32);
/* Check for write error. */
if (as3xxx_status < VI_SUCCESS)</pre>
          /* Error occurred during write. */;
```

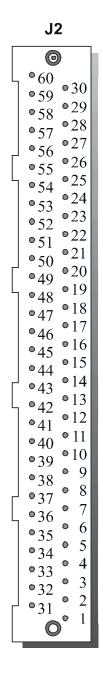
Chapter 10 Front Panel Connector

10.1 J1 Pin Signals



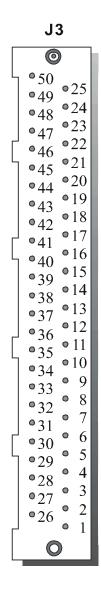
Pin	Function
1	NC
2	PIN 16 SHIELD
3	PIN 16 LO
4	PIN 16 HI
	PIN 14 SHIELD
6	PIN 14 LO
7	PIN 14 HI
8	PIN 12 SHIELD
9	PIN 12 LO
10	PIN 12 HI
11	PIN 10 SHIELD
12	PIN 10 LO
13	PIN 10 HI
14	PIN 8 SHIELD
15	PIN 8 SHIELD
16	PIN 8 HI
17	PIN 6 SHIELD
18	PIN 6 LO
19	PIN 6 HI
20	PIN 4 SHIELD
21	PIN 4 LO
22	PIN 4 HI
23	PIN 2 SHIELD
24	PIN 2 LO
25	PIN 2 HI
26	NC
27	PIN 15 SHIELD
28	PIN 15 LO
29	PIN 15 HI
30	PIN 13 SHIELD
31	PIN 13 LO
32	PIN 13 HI
33	PIN 11 SHIELD
34	PIN 11 LO
35	PIN 11 HI
36	PIN 9 SHIELD
37	PIN 9 LO
38	PIN 9 HI
39	PIN 7 SHIELD
40	PIN 7 LO
41	PIN 7 HI
42	PIN 5 SHIELD
43	PIN 5 LO
44	PIN 5 HI
45	PIN 3 SHIELD
46	PIN 3 LO
47	PIN 3 HI
48	PIN 1 SHIELD
49	PIN 1 LO
50	PIN 1 HI

10.2 Front Panel Connector J2 Pin Signals



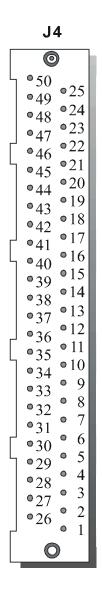
	I
Pin_	Function Children D. Children D.
$\frac{1}{2}$	CHAN D BUS - SHIELD CHAN D HI
3	CHAN D LO
4	CHAN C BUS - SHIELD
5	CHAN C HI
6	CHAN C LO
7	PIN 32 SHIELD
8	PIN 32 LO
9	PIN 32 HI
	PIN 30 SHIELD
11	PIN 30 LO
<u>12</u>	PIN 30 HI PIN 28 SHIELD
14	PIN 28 LO
15	PIN 28 HI
16	PIN 26 SHIELD
17	PIN 26 LO
18	PIN 26 HI
19	PIN 24 SHIELD
20	PIN 24 LO
21	PIN 24 HI
<u>22</u> 23	PIN 22 SHIELD PIN 22 LO
23	PIN 22 LO PIN 22 HI
25	PIN 20 SHIELD
26	PIN 20 LO
27	PIN 20 HI
28	PIN 18 SHIELD
29	PIN 18 LO
30	PIN 18 HI
31	CHAN B BUS - SHIELD
32	CHAN B HI
32 33	CHAN B HI CHAN B LO
32 33 34	CHAN B HI CHAN B LO CHAN A BUS - SHIELD
32 33	CHAN B HI CHAN B LO
32 33 34 35	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI
32 33 34 35 36	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO
32 33 34 35 36 37 38 39	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 I.O PIN 31 HI
32 33 34 35 36 37 38 39 40	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 I.O PIN 31 HI PIN 29 SHIELD
32 33 34 35 36 37 38 39 40 41	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 LO
32 33 34 35 36 37 38 39 40 41 42	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 HI
32 33 34 35 36 37 38 39 40 41	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 HI PIN 29 HI PIN 27 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 HI
32 33 34 35 36 37 38 39 40 41 42 43	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 LO
32 33 34 35 36 37 38 39 40 41 42 43 44 45	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 I.O PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 HI PIN 27 SHIELD PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 LO PIN 27 HI PIN 25 SHIELD PIN 25 HI PIN 25 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 I.O PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 HI PIN 27 SHIELD PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A HI CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 TLO PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 SHIELD PIN 23 SHIELD PIN 23 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A HI CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 SHIELD PIN 27 LO PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 25 SHIELD PIN 23 HI
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 ILO PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 SHIELD PIN 25 SHIELD PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 HI PIN 23 SHIELD PIN 23 HI PIN 23 HI
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 ILO PIN 31 HI PIN 29 SHIELD PIN 29 HI PIN 27 HI PIN 27 HI PIN 27 SHIELD PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 HI PIN 23 SHIELD PIN 23 HI PIN 23 HI PIN 21 SHIELD PIN 23 HI PIN 21 SHIELD PIN 23 HI PIN 21 SHIELD PIN 21 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 ILO PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 SHIELD PIN 25 SHIELD PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 HI PIN 23 SHIELD PIN 23 HI PIN 23 HI
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 I.O PIN 31 HI PIN 29 SHIELD PIN 29 LO PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 SHIELD PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 SHIELD PIN 23 LO PIN 23 HI PIN 21 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A HI CHAN A HI CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 SHIELD PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 HI PIN 23 SHIELD PIN 21 LO PIN 23 HI PIN 21 SHIELD PIN 21 HI PIN 21 SHIELD PIN 21 HI PIN 21 SHIELD PIN 21 HI PIN 19 SHIELD PIN 19 SHIELD PIN 19 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 HI PIN 29 SHIELD PIN 29 HI PIN 27 SHIELD PIN 27 TLO PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 23 LO PIN 23 HI PIN 23 HI PIN 23 HI PIN 21 LO PIN 21 LO PIN 21 HI PIN 21 SHIELD PIN 21 HI PIN 21 SHIELD PIN 21 HI PIN 19 SHIELD PIN 19 HI PIN 19 SHIELD
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57	CHAN B HI CHAN B LO CHAN A BUS - SHIELD CHAN A HI CHAN A HI CHAN A HI CHAN A HI CHAN A LO PIN 31 SHIELD PIN 31 LO PIN 31 HI PIN 29 SHIELD PIN 29 HI PIN 27 SHIELD PIN 27 HI PIN 27 SHIELD PIN 27 HI PIN 25 SHIELD PIN 25 SHIELD PIN 25 HI PIN 23 SHIELD PIN 23 HI PIN 23 SHIELD PIN 21 LO PIN 23 HI PIN 21 SHIELD PIN 21 HI PIN 21 SHIELD PIN 21 HI PIN 21 SHIELD PIN 21 HI PIN 19 SHIELD PIN 19 SHIELD PIN 19 SHIELD

10.3 Table 10-1. Front Panel Connector J3 Pin Signals



1 NC 2 PIN 48 SHIELD 3 PIN 48 LO 4 PIN 48 HI 5 PIN 46 SHIELD 6 PIN 46 LO 7 PIN 46 HI 8 PIN 44 SHIELD 9 PIN 44 SHIELD 10 PIN 44 HI 11 PIN 42 SHIELD 12 PIN 42 LO 13 PIN 42 LO 14 PIN 38 SHIELD 16 PIN 40 HI 17 PIN 38 SHIELD 18 PIN 38 LO 19 PIN 38 SHIELD 20 PIN 36 SHIELD 21 PIN 36 LO 22 PIN 36 HI 23 PIN 34 SHIELD 24 PIN 34 SHIELD 25 PIN 34 HI 26 NC 27 PIN 47 SHIELD 28 PIN 47 LO 29 PIN 47 SHIELD 31 PIN 45 HI 33 PIN 45 SHIELD 34 PIN 47 LO 35 PIN 47 HI 36 PIN 47 SHIELD 37 PIN 41 SHIELD 38 PIN 47 SHIELD 39 PIN 47 SHIELD 31 PIN 45 LO 32 PIN 45 HI 33 PIN 45 SHIELD 34 PIN 41 SHIELD 37 PIN 41 SHIELD 38 PIN 41 HI 39 PIN 39 SHIELD 40 PIN 39 SHIELD 40 PIN 39 SHIELD 41 PIN 39 HI 42 PIN 37 SHIELD 43 PIN 37 SHIELD 44 PIN 37 HI 45 PIN 35 SHIELD 46 PIN 35 SHIELD 47 PIN 35 SHIELD	Pin	Function
3 PIN 48 LO 4 PIN 48 HI 5 PIN 46 SHIELD 6 PIN 46 SHIELD 7 PIN 46 HI 8 PIN 44 SHIELD 9 PIN 44 SHIELD 10 PIN 44 HI 11 PIN 42 SHIELD 12 PIN 42 LO 13 PIN 42 HI 14 PIN 40 SHIELD 15 PIN 40 LO 16 PIN 40 HI 17 PIN 38 SHIELD 18 PIN 38 LO 19 PIN 36 SHIELD 20 PIN 36 SHIELD 21 PIN 36 LO 22 PIN 36 HI 23 PIN 34 SHIELD 24 PIN 36 LO 25 PIN 34 HI 26 NC 27 PIN 47 SHIELD 28 PIN 47 SHIELD 31 PIN 45 SHIELD 32 PIN 45 SHIELD 33 PIN 43 SHIELD 34 PIN 45 LO 35 PIN 45 HI 36 PIN 45 HI 37 PIN 43 SHIELD 38 PIN 47 LO 39 PIN 45 HI 30 PIN 45 SHIELD 31 PIN 45 LO 32 PIN 47 HI 33 PIN 43 SHIELD 34 PIN 43 SHIELD 35 PIN 45 HI 36 PIN 45 HI 37 PIN 45 LO 38 PIN 47 SHIELD 39 PIN 45 HI 39 PIN 43 SHIELD 31 PIN 45 SHIELD 31 PIN 45 LO 32 PIN 45 HI 33 PIN 43 SHIELD 34 PIN 45 HI 35 PIN 43 SHIELD 36 PIN 41 SHIELD 37 PIN 41 LO 38 PIN 41 HI 39 PIN 39 SHIELD 40 PIN 39 SHIELD 40 PIN 39 LO 41 PIN 39 HI 42 PIN 37 SHIELD 43 PIN 37 SHIELD 44 PIN 37 HI 45 PIN 35 SHIELD 46 PIN 35 SHIELD 47 PIN 35 SHIELD	1	NC
## PIN 48 HI 5	2	PIN 48 SHIELD
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47 PIN 35 HI 48 PIN 33 SHIELD 49 PIN 33 LO		
48 PIN 33 SHIELD 49 PIN 33 LO		
49 PIN 33 LO		
50 PIN 33 HI		
	50	PIN 33 HI

10.4 Table 10-1. Front Panel Connector J4 Pin Signals



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Pin	Function
1	NC
2	PIN 64 SHIELD
3	PIN 64 LO
4	PIN 64 HI
5	PIN 62 SHIELD
6	PIN 62 LO
7	PIN 62 HI
$\frac{8}{9}$	PIN 60 SHIELD
	PIN 60 LO
	PIN 60 HI
	PIN 58 SHIELD
12	PIN 58 LO
13	PIN 58 HI
14	PIN 56 SHIELD
15	PIN 56 LO
<u>16</u>	PIN 56 HI PIN 54 SHIELD
	PIN 54 SHIELD PIN 54 LO
<u>18</u>	PIN 54 HI
20	PIN 54 FII PIN 52 SHIELD
20	PIN 52 SHIELD
$\frac{21}{22}$	PIN 52 LO PIN 52 HI
23	PIN 52 HI PIN 50 SHIELD
	PIN 50 SHIELD
24 25	PIN 50 HI
26	NC
27	PIN 63 SHIELD
28	PIN 63 LO
29	PIN 63 HI
30	PIN 61 SHIELD
31	PIN 61 LO
32	PIN 61 HI
33	PIN 58 SHIELD
34	PIN 58 LO
35	PIN 58 HI
36	PIN 57 SHIELD
37	PIN 57 LO
38	PIN 57 HI
39	PIN 55 SHIELD
40	PIN 55 LO
41	PIN 55 HI
42	PIN 53 SHIELD
43	PIN 53 LO
44	PIN 53 HI
45	PIN 51 SHIELD
46	PIN 51 LO
47	PIN 51 HI
48	PIN 49 SHIELD
49	PIN 49 LO
50	PIN 49 HI