

Model 3000-45B (4x128) 2-wire Matrix 90400790



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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

EN61010-1 (1993)

EN61326-1 (1997)

Manufacturer's Name:

Giga-tronics, Incorporated

EMC Directive and Low Voltage Directive

Electrical Safety

EMC – Emissions and Immunity

Manufacturer's Address

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U.S.A.

Type of Equipment:

Switching Module

Model Series Number

3000-45B

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.
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TPCI Number	TPCI Issue Date	Date Entered	Comments

Revision History			
Revision	Description of Change	Chg Order #	Approved By
A	Initial Release		
B	Updated		
C	Reformatted 2/12		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

Module assembly, (**3000-45B**), 4X128, two wire matrix, shielded

PL90400790

Assy 90400790

PCA (MB)

PL85004000-002

Assy85004000

SCH85004000

PCA (DB)

PL 85004010

Assy85004010

SCH85004010

PCA (Mini Backplane)

PL 85002270

Assy85002280

SCH85002270

PCA (4 SLOT TERMINATOR)

PL85002280

Assy85002280

SCH85002280

Chapter 3 Functional Description

3.1 Introduction

This manual provides the necessary information for the maintenance of the Model 3000-45B 4x128, Dual Wire Switch Matrix.

3.2 General Description

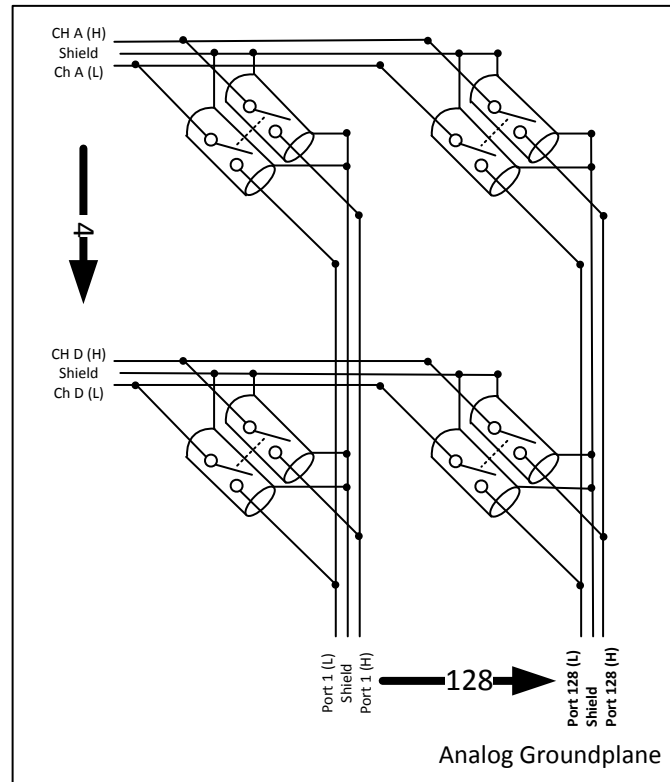
This module is a 4x128 dual wire matrix switch. Each relay in the module is individually controlled. Any and all relays can be closed. The module is designed to support precision testing designs such as ATE.

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 meets the specification of 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 eight 4x16 dual wire matrices connected together through isolation relays. Isolation circuits are provided to maintain signal performance by disconnecting unused sections of the matrices. The 3000-45B consists of a motherboard (MB) and three daughterboards (DB) connected together with a mini backplane to achieve the 4x128 matrix.

Chapter 4 Block Diagram

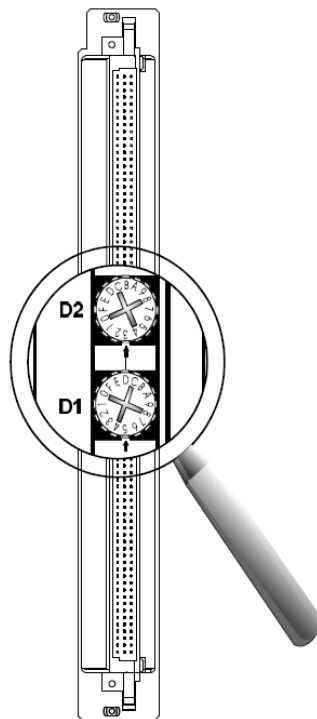


Chapter 5 Controls and Indicators

The following controls and indicators are provided to select and display the functions of the ASCOR 3000-45B 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 3000-45B 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

Mechanical Specifications

Weight	9 lbs
Dimensions	Two-wide "C" size VXI

ASCOR Model 3000-45B

Eight dual wire 4x16 matrices with 40MHz min to 100MHz max bandwidth connected together through isolation circuits to form a 4x128 dual wire matrix.

Expandable through additional daughterboards.

Electrical Specifications

DC parameters:

Switching voltage:	200 Volts
Switching current:	0.5 Amps
Carry current:	1.5 Amps
Contact rating:	10 Watts

AC Parameters:

Bandwidth:	40MHz min to 100MHz max into 50Ω>, each line with respect to shield
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Chapter 9 Programming

The Model 3000-45B a VXI register based module. The switch paths are controlled via VXIMAX™ which is the 16/32 bit data controller. The Model 3000-45B can be programmed in 16 bit or 32 bit wide data.

Through your VXI controller, write the data to the appropriate register as shown on the register map for the relay or relays in the register that is being closed. When the data bit is true, the relay chosen will be closed. The state of the relays in a register can be determined by reading the desired register. The data read back represents the value at the coil of the relay. This allows verification that the program register has correctly controlled the relay coil.

The following register maps are shown in two configurations: 16 bit mode and 32 bit mode. In each section, 16 bit and 32 bit, the register map is organized to show the relay designation in each register. It is followed by the register's functionality and the path connections to the front panel.

Programming of the Model 3000-45B is very simple. The module is organized into 4 pins per register in 16 bit mode or 8 pins per register in 32 bit mode. A pin is controlled by a group of 4 bits within the program registers. These bits select one or more the four available channels. Typically, only one channel is assigned to a pin for optimum performance. Whenever a pin is selected in a group, the appropriate channel isolation relay must be closed to complete the path. The isolation relays is the last register in the mother board and daughter board.

For example:

To close pin 1 to channel A and to close pin 2 to channel B would set the following register:

Register 8000h: control pins 1- 4

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1

Register 8010h: controls the isolation relays

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

Register Map - 16 and 32 Bit

MSB

MODE: 32	MODE: 16	15	14	13	12	11	10	9	8
8000h-lower	8000h	K16	K15	K14	K13	K12	K11	K10	K9

LSB

MODE: 32	MODE: 16	7	6	5	4	3	2	1	0
8000h-lower	8000h	K8	K7	K6	K5	K4	K3	K2	K1

MSB

MODE: 32	+	+	MODE: 16	+	15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8000h- upper	+	+	8002h	+	K32	K31	K30	K29	K28	K27	K26	K25

LSB

MODE: 32	+	+	MODE: 16	+	7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8000h- upper	+	+	8002h	+	K24	K23	K22	K21	K20	K19	K18	K17

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8004h- lower			8004h		K48	K47	K46	K45	K44	K43	K42	K41

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8004h- lower			8004h		K40	K39	K38	K37	K36	K35	K34	K33

PCB NUMBER: SCH85004000**MSB**

MODE: 32		MODE: 16	15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8004h- upper		8006h	K64	K63	K62	K61	K60	K59	K58	K57

LSB

MODE: 32		MODE: 16	7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8004h- upper		8006h	K56	K55	K54	K53	K52	K51	K50	K49

MSB

MODE: 32		MODE: 16	15	14	13	12	11	10	9	8
8008h- lower		8008h	K80	K79	K78	K77	K76	K75	K74	K73

LSB

MODE: 32		MODE: 16	7	6	5	4	3	2	1	0
8008h- lower		8008h	K72	K71	K70	K69	K68	K67	K66	K65

MSB

MODE: 32		MODE: 16	15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8008h- upper		800ah	K96	K95	K94	K93	K92	K91	K90	K89

LSB

MODE: 32		MODE: 16	7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8008h- upper		800ah	K88	K87	K86	K85	K84	K83	K82	K81

PCB NUMBER: SCH85004000**MSB**

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
800ch- lower			800ch		K112	K111	K110	K109	K108	K107	K106	K105

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
800ch- lower			800ch		K104	K103	K102	K101	K100	K99	K98	K97

MSB

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
800ch- upper			800eh		K128	K127	K126	K125	K124	K123	K122	K121

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
800ch- upper			800eh		K120	K119	K118	K117	K116	K115	K114	K113

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8010h- lower			8010h		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8010h- lower			8010h		K136	K135	K134	K133	K132	K131	K130	K129

PCB NUMBER: SCH85004000
REGISTER: 8000h, , MODE: 16/32 bit, , +
FUNCTION: Control Matrix Pins 1-4, Channels A , B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 1	J1-50, 49, 48	K1	Chan A is J2- 35, 36, 34
1	Chan B, Pin 1	J1-50, 49, 48	K2	Chan B is J2- 32, 33, 31
2	Chan C, Pin 1	J1-50, 49, 48	K3	Chan C is J2- 5, 6, 4
3	Chan D, Pin 1	J1-50, 49, 48	K4	Chan D is J2-2, 3, 1
4	Chan A, Pin 2	J1-25, 24, 23	K5	Chan A is J2- 35, 36, 34
5	Chan B, Pin 2	J1-25, 24, 23	K6	Chan B is J2- 32, 33, 31
6	Chan C, Pin 2	J1-25, 24, 23	K7	Chan C is J2- 5, 6, 4
7	Chan D, Pin 2	J1-25, 24, 23	K8	Chan D is J2-2, 3, 1
8	Chan A, Pin 3	J1-47, 46, 45	K9	Chan A is J2- 35, 36, 34
9	Chan B, Pin 3	J1-47, 46, 45	K10	Chan B is J2- 32, 33, 31
10	Chan C, Pin 3	J1-47, 46, 45	K11	Chan C is J2- 5, 6, 4
11	Chan D, Pin 3	J1-47, 46, 45	K12	Chan D is J2-2, 3, 1
12	Chan A, Pin 4	J1-22, 21, 20	K13	Chan A is J2- 35, 36, 34
13	Chan B, Pin 4	J1-22, 21, 20	K14	Chan B is J2- 32, 33, 31
14	Chan C, Pin 4	J1-22, 21, 20	K15	Chan C is J2- 5, 6, 4
15	Chan D, Pin 4	J1-22, 21, 20	K16	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000

REGISTER: 8000h, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 8002h, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 5-8, Channels A, B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 5	J1-44, 43, 42	K17	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 5	J1-44, 43, 42	K18	Chan B is J2- 32, 33 , 31
2(18)	Chan C, Pin 5	J1-44, 43, 42	K19	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 5	J1-44, 43, 42	K20	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 6	J1-19, 18, 17	K21	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 6	J1-19, 18, 17	K22	Chan B is J2- 32, 33 , 31
6(22)	Chan C, Pin 6	J1-19, 18, 17	K23	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 6	J1-19, 18, 17	K24	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 7	J1-41, 40, 39	K25	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 7	J1-41, 40, 39	K26	Chan B is J2- 32, 33 , 31
10(26)	Chan C, Pin 7	J1-41, 40, 39	K27	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 7	J1-41, 40, 39	K28	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 8	J1-16, 15, 14	K29	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 8	J1-16, 15, 14	K30	Chan B is J2- 32, 33 , 31
14(30)	Chan C, Pin 8	J1-16, 15, 14	K31	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 8	J1-16, 15, 14	K32	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000
REGISTER: 8004h, , MODE: 16/32 bit, , +
FUNCTION: Control Matrix Pins 9-12, Channels A , B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 9	J1-38, 37, 36	K33	Chan A is J2- 35, 36, 34
1	Chan B, Pin 9	J1-38, 37, 36	K34	Chan B is J2- 32, 33, 31
2	Chan C, Pin 9	J1-38, 37, 36	K35	Chan C is J2- 5, 6, 4
3	Chan D, Pin 9	J1-38, 37, 36	K36	Chan D is J2-2, 3, 1
4	Chan A, Pin 10	J1-13, 12, 11	K37	Chan A is J2- 35, 36, 34
5	Chan B, Pin 10	J1-13, 12, 11	K38	Chan B is J2- 32, 33, 31
6	Chan C, Pin 10	J1-13, 12, 11	K39	Chan C is J2- 5, 6, 4
7	Chan D, Pin 10	J1-13, 12, 11	K40	Chan D is J2-2, 3, 1
8	Chan A, Pin 11	J1-35, 34, 33	K41	Chan A is J2- 35, 36, 34
9	Chan B, Pin 11	J1-35, 34, 33	K42	Chan B is J2- 32, 33, 31
10	Chan C, Pin 11	J1-35, 34, 33	K43	Chan C is J2- 5, 6, 4
11	Chan D, Pin 11	J1-35, 34, 33	K44	Chan D is J2-2, 3, 1
12	Chan A, Pin 12	J1-10, 9, 8	K45	Chan A is J2- 35, 36, 34
13	Chan B, Pin 12	J1-10, 9, 8	K46	Chan B is J2- 32, 33, 31
14	Chan C, Pin 12	J1-10, 9, 8	K47	Chan C is J2- 5, 6, 4
15	Chan D, Pin 12	J1-10, 9, 8	K48	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000

REGISTER: 8004h, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 8006h, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 13-16, Channels A , B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 13	J1-32, 31, 30	K49	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 13	J1-32, 31, 30	K50	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 13	J1-32, 31, 30	K51	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 13	J1-32, 31, 30	K52	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 14	J1-7, 6, 5	K53	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 14	J1-7, 6, 5	K54	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 14	J1-7, 6, 5	K55	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 14	J1-7, 6, 5	K56	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 15	J1-29, 28, 27	K57	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 15	J1-29, 28, 27	K58	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 15	J1-29, 28, 27	K59	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 15	J1-29, 28, 27	K60	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 16	J1-4, 3, 2	K61	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 16	J1-4, 3, 2	K62	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 16	J1-4, 3, 2	K63	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 16	J1-4, 3, 2	K64	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000
REGISTER: 8008h, , MODE: 16/32 bit, , +
FUNCTION: Control Matrix Pins 17-23, Channels A , B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 17	J2-60, 59, 58	K65	Chan A is J2- 35, 36, 34
1	Chan B, Pin 17	J2-60, 59, 58	K66	Chan B is J2- 32, 33, 31
2	Chan C, Pin 17	J2-60, 59, 58	K67	Chan C is J2- 5, 6, 4
3	Chan D, Pin 17	J2-60, 59, 58	K68	Chan D is J2-2, 3, 1
4	Chan A, Pin 18	J2-30, 29, 28	K69	Chan A is J2- 35, 36, 34
5	Chan B, Pin 18	J2-30, 29, 28	K70	Chan B is J2- 32, 33, 31
6	Chan C, Pin 18	J2-30, 29, 28	K71	Chan C is J2- 5, 6, 4
7	Chan D, Pin 18	J2-30, 29, 28	K72	Chan D is J2-2, 3, 1
8	Chan A, Pin 19	J2-57, 56, 55	K73	Chan A is J2- 35, 36, 34
9	Chan B, Pin 19	J2-57, 56, 55	K74	Chan B is J2- 32, 33, 31
10	Chan C, Pin 19	J2-57, 56, 55	K75	Chan C is J2- 5, 6, 4
11	Chan D, Pin 19	J2-57, 56, 55	K76	Chan D is J2-2, 3, 1
12	Chan A, Pin 20	J2-27, 26, 25	K77	Chan A is J2- 35, 36, 34
13	Chan B, Pin 20	J2-27, 26, 25	K78	Chan B is J2- 32, 33, 31
14	Chan C, Pin 20	J2-27, 26, 25	K79	Chan C is J2- 5, 6, 4
15	Chan D, Pin 20	J2-27, 26, 25	K80	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000

REGISTER: 8008h, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 800ah, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 21-24, Channels A , B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 21	J2-54, 53, 52	K81	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 21	J2-54, 53, 52	K82	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 21	J2-54, 53, 52	K83	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 21	J2-54, 53, 52	K84	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 22	J2-24, 23, 22	K85	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 22	J2-24, 23, 22	K86	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 22	J2-24, 23, 22	K87	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 22	J2-24, 23, 22	K88	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 23	J2-51, 50, 49	K89	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 23	J2-51, 50, 49	K90	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 23	J2-51, 50, 49	K91	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 23	J2-51, 50, 49	K92	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 24	J2-21, 20, 19	K93	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 24	J2-21, 20, 19	K94	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 24	J2-21, 20, 19	K95	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 24	J2-21, 20, 19	K96	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000
REGISTER: 800ch, , MODE: 16/32 bit, , +**FUNCTION: Control Matrix Pins 25-28, Channels A , B, C, D, , , , +**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 25	J2-48, 47, 46	K97	Chan A is J2- 35, 36, 34
1	Chan B, Pin 25	J2-48, 47, 46	K98	Chan B is J2- 32, 33, 31
2	Chan C, Pin 25	J2-48, 47, 46	K99	Chan C is J2- 5, 6, 4
3	Chan D, Pin 25	J2-48, 47, 46	K100	Chan D is J2-2, 3, 1
4	Chan A, Pin 26	J2-18, 17, 16	K101	Chan A is J2- 35, 36, 34
5	Chan B, Pin 26	J2-18, 17, 16	K102	Chan B is J2- 32, 33, 31
6	Chan C, Pin 26	J2-18, 17, 16	K103	Chan C is J2- 5, 6, 4
7	Chan D, Pin 26	J2-18, 17, 16	K104	Chan D is J2-2, 3, 1
8	Chan A, Pin 27	J2-45, 44, 43	K105	Chan A is J2- 35, 36, 34
9	Chan B, Pin 27	J2-45, 44, 43	K106	Chan B is J2- 32, 33, 31
10	Chan C, Pin 27	J2-45, 44, 43	K107	Chan C is J2- 5, 6, 4
11	Chan D, Pin 27	J2-45, 44, 43	K108	Chan D is J2-2, 3, 1
12	Chan A, Pin 28	J2-15, 14, 13	K109	Chan A is J2- 35, 36, 34
13	Chan B, Pin 28	J2-15, 14, 13	K110	Chan B is J2- 32, 33, 31
14	Chan C, Pin 28	J2-15, 14, 13	K111	Chan C is J2- 5, 6, 4
15	Chan D, Pin 28	J2-15, 14, 13	K112	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000

REGISTER: 800ch, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 800eh, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 29-32, Channels A , B, C, D, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 29	J2-42, 41, 40	K113	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 29	J2-42, 41, 40	K114	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 29	J2-42, 41, 40	K115	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 29	J2-42, 41, 40	K116	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 30	J2-12, 11, 10	K117	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 30	J2-12, 11, 10	K118	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 30	J2-12, 11, 10	K119	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 30	J2-12, 11, 10	K120	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 31	J2-39, 38, 37	K121	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 31	J2-39, 38, 37	K122	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 31	J2-39, 38, 37	K123	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 31	J2-39, 38, 37	K124	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 32	J2-9, 8, 7	K125	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 32	J2-9, 8, 7	K126	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 32	J2-9, 8, 7	K127	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 32	J2-9, 8, 7	K128	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004000**REGISTER: 8010h, , MODE: 16/32 bit, , +****FUNCTION: Control Matrix, Isolation relays, Channels A , B, C, D, , , , +**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan A, Grp 1	J2-35, 36, 34	K129	Chan A is J2- 35, 36, 34
1	Isolation Chan B, Grp 1	J2-32, 33, 31	K130	Chan B is J2- 32, 33, 31
2	Isolation Chan C, Grp 1	J2-5, 6, 4	K131	Chan C is J2- 5, 6, 4
3	Isolation Chan D, Grp 1	J2-2, 3, 1	K132	Chan D is J2-2, 3, 1
4	Isolation Chan A, Grp 2	J2-35, 36, 34	K133	Chan A is J2- 35, 36, 34
5	Isolation Chan B, Grp 2	J2-32, 33, 31	K134	Chan B is J2- 32, 33, 31
6	Isolation Chan C, Grp 2	J2-5, 6, 4	K135	Chan C is J2- 5, 6, 4
7	Isolation Chan D, Grp 2	J2-2, 3, 1	K136	Chan D is J2-2, 3, 1
8				
9				
10				
11				
12				
13				
14				
15				

Register Map - 16 and 32 Bit

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8020h- lower			8020h		K16	K15	K14	K13	K12	K11	K10	K9

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8020h- lower			8020h		K8	K7	K6	K5	K4	K3	K2	K1

MSB

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8020h- upper			8022h		K32	K31	K30	K29	K28	K27	K26	K25

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8020h- upper			8022h		K24	K23	K22	K21	K20	K19	K18	K17

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8024h- lower			8024h		K48	K47	K46	K45	K44	K43	K42	K41

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8024h- lower			8024h		K40	K39	K38	K37	K36	K35	K34	K33

PCB NUMBER: SCH85004040**MSB**

MODE: 32		MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8024h- upper		8026h		K64	K63	K62	K61	K60	K59	K58	K57

LSB

MODE: 32		MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8024h- upper		8026h		K56	K55	K54	K53	K52	K51	K50	K49

MSB

MODE: 32		MODE: 16		15	14	13	12	11	10	9	8
8028h- lower		8028h		K80	K79	K78	K77	K76	K75	K74	K73

LSB

MODE: 32		MODE: 16		7	6	5	4	3	2	1	0
8028h- lower		8028h		K72	K71	K70	K69	K68	K67	K66	K65

MSB

MODE: 32		MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8028h- upper		802ah		K96	K95	K94	K93	K92	K91	K90	K89

LSB

MODE: 32		MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8028h- upper		802ah		K88	K87	K86	K85	K84	K83	K82	K81

PCB NUMBER: SCH85004040**MSB**

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
802ch- lower			802ch		K112	K111	K110	K109	K108	K107	K106	K105

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
802ch- lower			802ch		K104	K103	K102	K101	K100	K99	K98	K97

MSB

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
802ch- upper			802eh		K128	K127	K126	K125	K124	K123	K122	K121

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8024h- upper			802eh		K120	K119	K118	K117	K116	K115	K114	K113

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8030h- lower			8030h		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8030h- lower			8030h		K136	K135	K134	K133	K132	K131	K130	K129

PCB NUMBER: SCH85004040**REGISTER: 8020h, , MODE: 16/32 bit, , +****FUNCTION: Control Matrix Pins 33-36, Channels A , B, C, D, Daughter Board #1, , , , +**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 33	J3-50, 49, 48	K1	Chan A is J2- 35, 36, 34
1	Chan B, Pin 33	J3-50, 49, 48	K2	Chan B is J2- 32, 33, 31
2	Chan C, Pin 33	J3-50, 49, 48	K3	Chan C is J2- 5, 6, 4
3	Chan D, Pin 33	J3-50, 49, 48	K4	Chan D is J2-2, 3, 1
4	Chan A, Pin 34	J3-25, 24, 23	K5	Chan A is J2- 35, 36, 34
5	Chan B, Pin 34	J3-25, 24, 23	K6	Chan B is J2- 32, 33, 31
6	Chan C, Pin 34	J3-25, 24, 23	K7	Chan C is J2- 5, 6, 4
7	Chan D, Pin 34	J3-25, 24, 23	K8	Chan D is J2-2, 3, 1
8	Chan A, Pin 35	J3-47, 46, 45	K9	Chan A is J2- 35, 36, 34
9	Chan B, Pin 35	J3-47, 46, 45	K10	Chan B is J2- 32, 33, 31
10	Chan C, Pin 35	J3-47, 46, 45	K11	Chan C is J2- 5, 6, 4
11	Chan D, Pin 35	J3-47, 46, 45	K12	Chan D is J2-2, 3, 1
12	Chan A, Pin 36	J3-22, 21, 20	K13	Chan A is J2- 35, 36, 34
13	Chan B, Pin 36	J3-22, 21, 20	K14	Chan B is J2- 32, 33, 31
14	Chan C, Pin 36	J3-22, 21, 20	K15	Chan C is J2- 5, 6, 4
15	Chan D, Pin 36	J3-22, 21, 20	K16	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040

REGISTER: 8020h, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 8022h, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 37-40, Channels A , B, C, D, Daughter Board #1, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 37	J3-44, 43, 42	K17	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 37	J3-44, 43, 42	K18	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 37	J3-44, 43, 42	K19	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 37	J3-44, 43, 42	K20	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 38	J3-19, 18, 17	K21	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 38	J3-19, 18, 17	K22	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 38	J3-19, 18, 17	K23	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 38	J3-19, 18, 17	K24	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 39	J3-41, 40, 39	K25	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 39	J3-41, 40, 39	K26	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 39	J3-41, 40, 39	K27	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 39	J3-41, 40, 39	K28	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 40	J3-16, 15, 14	K29	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 40	J3-16, 15, 14	K30	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 40	J3-16, 15, 14	K31	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 40	J3-16, 15, 14	K32	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040
REGISTER: 8024h, , MODE: 16/32 bit, , +
FUNCTION: Control Matrix Pins 41-44, Channels A , B, C, D, Daughter Board #1, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 41	J3-38, 37, 36	K33	Chan A is J2- 35, 36, 34
1	Chan B, Pin 41	J3-38, 37, 36	K34	Chan B is J2- 32, 33, 31
2	Chan C, Pin 41	J3-38, 37, 36	K35	Chan C is J2- 5, 6, 4
3	Chan D, Pin 41	J3-38, 37, 36	K36	Chan D is J2-2, 3, 1
4	Chan A, Pin 42	J3-13, 12, 11	K37	Chan A is J2- 35, 36, 34
5	Chan B, Pin 42	J3-13, 12, 11	K38	Chan B is J2- 32, 33, 31
6	Chan C, Pin 42	J3-13, 12, 11	K39	Chan C is J2- 5, 6, 4
7	Chan D, Pin 42	J3-13, 12, 11	K40	Chan D is J2-2, 3, 1
8	Chan A, Pin 43	J3-35, 34, 33	K41	Chan A is J2- 35, 36, 34
9	Chan B, Pin 43	J3-35, 34, 33	K42	Chan B is J2- 32, 33, 31
10	Chan C, Pin 43	J3-35, 34, 33	K43	Chan C is J2- 5, 6, 4
11	Chan D, Pin 43	J3-35, 34, 33	K44	Chan D is J2-2, 3, 1
12	Chan A, Pin 44	J3-10, 9, 8	K45	Chan A is J2- 35, 36, 34
13	Chan B, Pin 44	J3-10, 9, 8	K46	Chan B is J2- 32, 33, 31
14	Chan C, Pin 44	J3-10, 9, 8	K47	Chan C is J2- 5, 6, 4
15	Chan D, Pin 44	J3-10, 9, 8	K48	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040

REGISTER: 8024h, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 8026h, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 45-48, Channels A , B, C, D, Daughter Board #1, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 45	J3-32, 31, 30	K49	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 45	J3-32, 31, 30	K50	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 45	J3-32, 31, 30	K51	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 45	J3-32, 31, 30	K52	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 46	J3-7, 6, 5	K53	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 46	J3-7, 6, 5	K54	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 46	J3-7, 6, 5	K55	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 46	J3-7, 6, 5	K56	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 47	J3-29, 28, 27	K57	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 47	J3-29, 28, 27	K58	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 47	J3-29, 28, 27	K59	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 47	J3-29, 28, 27	K60	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 48	J3-4, 3, 2	K61	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 48	J3-4, 3, 2	K62	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 48	J3-4, 3, 2	K63	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 48	J3-4, 3, 2	K64	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040
REGISTER: 8028h, , MODE: 16/32 bit, , +
FUNCTION: Control Matrix Pins 49-52, Channels A , B, C, D, Daughter Board #1, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 49	J4-50, 49, 48	K65	Chan A is J2- 35, 36, 34
1	Chan B, Pin 49	J4-50, 49, 48	K66	Chan B is J2- 32, 33, 31
2	Chan C, Pin 49	J4-50, 49, 48	K67	Chan C is J2- 5, 6, 4
3	Chan D, Pin 49	J4-50, 49, 48	K68	Chan D is J2-2, 3, 1
4	Chan A, Pin 50	J4-25, 24, 23	K69	Chan A is J2- 35, 36, 34
5	Chan B, Pin 50	J4-25, 24, 23	K70	Chan B is J2- 32, 33, 31
6	Chan C, Pin 50	J4-25, 24, 23	K71	Chan C is J2- 5, 6, 4
7	Chan D, Pin 50	J4-25, 24, 23	K72	Chan D is J2-2, 3, 1
8	Chan A, Pin 51	J4-47, 46, 45	K73	Chan A is J2- 35, 36, 34
9	Chan B, Pin 51	J4-47, 46, 45	K74	Chan B is J2- 32, 33, 31
10	Chan C, Pin 51	J4-47, 46, 45	K75	Chan C is J2- 5, 6, 4
11	Chan D, Pin 51	J4-47, 46, 45	K76	Chan D is J2-2, 3, 1
12	Chan A, Pin 52	J4-22, 21, 20	K77	Chan A is J2- 35, 36, 34
13	Chan B, Pin 52	J4-22, 21, 20	K78	Chan B is J2- 32, 33, 31
14	Chan C, Pin 52	J4-22, 21, 20	K79	Chan C is J2- 5, 6, 4
15	Chan D, Pin 52	J4-22, 21, 20	K80	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040

REGISTER: 8028h, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 802ah, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 53-56, Channels A , B, C, D, Daughter Board #1, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 53	J4-44, 43, 42	K81	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 53	J4-44, 43, 42	K82	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 53	J4-44, 43, 42	K83	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 53	J4-44, 43, 42	K84	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 54	J4-19, 18, 17	K85	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 54	J4-19, 18, 17	K86	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 54	J4-19, 18, 17	K87	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 54	J4-19, 18, 17	K88	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 55	J4-41, 40, 39	K89	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 55	J4-41, 40, 39	K90	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 55	J4-41, 40, 39	K91	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 55	J4-41, 40, 39	K92	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 56	J4-16, 15, 14	K93	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 56	J4-16, 15, 14	K94	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 56	J4-16, 15, 14	K95	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 56	J4-16, 15, 14	K96	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040
REGISTER: 802ch, , MODE: 16/32 bit, , +
FUNCTION: Control Matrix Pins 57-60, Channels A , B, C, D, Daughter Board #1, , , , +

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 57	J4-38, 37, 36	K97	Chan A is J2- 35, 36, 34
1	Chan B, Pin 57	J4-38, 37, 36	K98	Chan B is J2- 32, 33, 31
2	Chan C, Pin 57	J4-38, 37, 36	K99	Chan C is J2- 5, 6, 4
3	Chan D, Pin 57	J4-38, 37, 36	K100	Chan D is J2-2, 3, 1
4	Chan A, Pin 58	J4-13, 12, 11	K101	Chan A is J2- 35, 36, 34
5	Chan B, Pin 58	J4-13, 12, 11	K102	Chan B is J2- 32, 33, 31
6	Chan C, Pin 58	J4-13, 12, 11	K103	Chan C is J2- 5, 6, 4
7	Chan D, Pin 58	J4-13, 12, 11	K104	Chan D is J2-2, 3, 1
8	Chan A, Pin 59	J4-35, 34, 33	K105	Chan A is J2- 35, 36, 34
9	Chan B, Pin 59	J4-35, 34, 33	K106	Chan B is J2- 32, 33, 31
10	Chan C, Pin 59	J4-35, 34, 33	K107	Chan C is J2- 5, 6, 4
11	Chan D, Pin 59	J4-35, 34, 33	K108	Chan D is J2-2, 3, 1
12	Chan A, Pin 60	J4-10, 9, 8	K109	Chan A is J2- 35, 36, 34
13	Chan B, Pin 60	J4-10, 9, 8	K110	Chan B is J2- 32, 33, 31
14	Chan C, Pin 60	J4-10, 9, 8	K111	Chan C is J2- 5, 6, 4
15	Chan D, Pin 60	J4-10, 9, 8	K112	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040

REGISTER: 802ch, , MODE: 32 bit, BITS 16-31, , +

REGISTER: 802eh, , MODE: 16 bit<\$!C5,5,0,255,255,255>, , +

FUNCTION: Control Matrix Pins 61-64, Channels A , B, C, D, Daughter Board #1, , , , +

BITS	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 61	J4-32, 31, 30	K113	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 61	J4-32, 31, 30	K114	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 61	J4-32, 31, 30	K115	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 61	J4-32, 31, 30	K116	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 62	J4-7, 6, 5	K117	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 62	J4-7, 6, 5	K118	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 62	J4-7, 6, 5	K119	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 62	J4-7, 6, 5	K120	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 63	J4-29, 28, 27	K121	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 63	J4-29, 28, 27	K122	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 63	J4-29, 28, 27	K123	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 63	J4-29, 28, 27	K124	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 64	J4-4, 3, 2	K125	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 64	J4-4, 3, 2	K126	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 64	J4-4, 3, 2	K127	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 64	J4-4, 3, 2	K128	Chan D is J2-2, 3, 1

PCB NUMBER: SCH85004040
REGISTER: 8030h, , MODE: 16/32 bit, , +
**FUNCTION: Control Matrix, Isolation relays, Channels A , B, C, D, Daughter Board #1, , ,
 , +**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan A, Grp 1	J2-35, 36, 34	K129	Chan A is J2- 35, 36, 34
1	Isolation Chan B, Grp 1	J2-32, 33, 31	K130	Chan B is J2- 32, 33, 31
2	Isolation Chan C, Grp 1	J2-5, 6, 4	K131	Chan C is J2- 5, 6, 4
3	Isolation Chan D, Grp 1	J2-2, 3, 1	K132	Chan D is J2-2, 3, 1
4	Isolation Chan A, Grp 2	J2-35, 36, 34	K133	Chan A is J2- 35, 36, 34
5	Isolation Chan B, Grp 2	J2-32, 33, 31	K134	Chan B is J2- 32, 33, 31
6	Isolation Chan C, Grp 2	J2-5, 6, 4	K135	Chan C is J2- 5, 6, 4
7	Isolation Chan D, Grp 2	J2-2, 3, 1	K136	Chan D is J2-2, 3, 1
8				
9				
10				
11				
12				
13				
14				
15				

Register Map - 16 and 32 Bit

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**MSB**

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8040h- lower			8040h		K16	K15	K14	K13	K12	K11	K10	K9

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8040h- lower			8040h		K8	K7	K6	K5	K4	K3	K2	K1

MSB

MODE: 32		MODE : 16	15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8040h- upper		8042h	K32	K31	K30	K29	K28	K27	K26	K25

LSB

MODE: 32		MODE: 16	7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8040h- upper		8042h	K24	K23	K22	K21	K20	K19	K18	K17

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8044h- lower			8044h		K48	K47	K46	K45	K44	K43	K42	K41

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8044h- lower			8044h		K40	K39	K38	K37	K36	K35	K34	K33

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**MSB**

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8044h- upper			8046h		K64	K63	K62	K61	K60	K59	K58	K57

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8044h- upper			8046h		K56	K55	K54	K53	K52	K51	K50	K49

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8048h- lower			8048h		K80	K79	K78	K77	K76	K75	K74	K73

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8048h- lower			8048h		K72	K71	K70	K69	K68	K67	K66	K65

MSB

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8048h- upper			804ah		K96	K95	K94	K93	K92	K91	K90	K89

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8048h- upper			804ah		K88	K87	K86	K85	K84	K83	K82	K81

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**MSB**

MODE: 32		MODE: 16		15	14	13	12	11	10	9	8
804ch- lower		804ch		K112	K111	K110	K109	K108	K107	K106	K105

LSB

MODE: 32		MODE: 16		7	6	5	4	3	2	1	0
804ch- lower		804ch		K104	K103	K102	K101	K100	K99	K98	K97

MSB

MODE: 32		MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
804ch- upper		804eh		K128	K127	K126	K125	K124	K123	K122	K121

LSB

MODE: 32		MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8044h- upper		804eh		K120	K119	K118	K117	K116	K115	K114	K113

MSB

MODE: 32		MODE: 16		15	14	13	12	11	10	9	8
8050h- lower		8050h		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LSB

MODE: 32		MODE: 16		7	6	5	4	3	2	1	0
8050h- lower		8050h		K136	K135	K134	K133	K132	K131	K130	K129

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8040h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 65-68, Channels A , B, C, D, Daughter Board #2, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 65	J5-50, 49, 48	K1	Chan A is J2- 35, 36, 34
1	Chan B, Pin 65	J5-50, 49, 48	K2	Chan B is J2- 32, 33, 31
2	Chan C, Pin 65	J5-50, 49, 48	K3	Chan C is J2- 5, 6, 4
3	Chan D, Pin 65	J5-50, 49, 48	K4	Chan D is J2-2, 3, 1
4	Chan A, Pin 66	J5-25, 24, 23	K5	Chan A is J2- 35, 36, 34
5	Chan B, Pin 66	J5-25, 24, 23	K6	Chan B is J2- 32, 33, 31
6	Chan C, Pin 66	J5-25, 24, 23	K7	Chan C is J2- 5, 6, 4
7	Chan D, Pin 66	J5-25, 24, 23	K8	Chan D is J2-2, 3, 1
8	Chan A, Pin 67	J5-47, 46, 45	K9	Chan A is J2- 35, 36, 34
9	Chan B, Pin 67	J5-47, 46, 45	K10	Chan B is J2- 32, 33, 31
10	Chan C, Pin 67	J5-47, 46, 45	K11	Chan C is J2- 5, 6, 4
11	Chan D, Pin 67	J5-47, 46, 45	K12	Chan D is J2-2, 3, 1
12	Chan A, Pin 68	J5-22, 21, 20	K13	Chan A is J2- 35, 36, 34
13	Chan B, Pin 68	J5-22, 21, 20	K14	Chan B is J2- 32, 33, 31
14	Chan C, Pin 68	J5-22, 21, 20	K15	Chan C is J2- 5, 6, 4
15	Chan D, Pin 68	J5-22, 21, 20	K16	Chan D is J2-2, 3, 1

REGISTER: 8040h, , MODE: 32 bit, BITS 16-31, ,
REGISTER: 8042h, , MODE: 16 bit, ,
FUNCTION: Control Matrix Pins 69-72, Channels A , B, C, D, Daughter Board #2, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 69	J5-44, 43, 42	K17	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 69	J5-44, 43, 42	K18	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 69	J5-44, 43, 42	K19	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 69	J5-44, 43, 42	K20	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 70	J5-19, 18, 17	K21	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 70	J5-19, 18, 17	K22	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 70	J5-19, 18, 17	K23	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 70	J5-19, 18, 17	K24	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 71	J5-41, 40, 39	K25	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 71	J5-41, 40, 39	K26	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 71	J5-41, 40, 39	K27	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 71	J5-41, 40, 39	K28	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 72	J5-16, 15, 14	K29	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 72	J5-16, 15, 14	K30	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 72	J5-16, 15, 14	K31	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 72	J5-16, 15, 14	K32	Chan D is J2-2, 3, 1

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8044h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 73-76, Channels A , B, C, D, Daughter Board #2, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 73	J5-38, 37, 36	K33	Chan A is J2- 35, 36, 34
1	Chan B, Pin 73	J5-38, 37, 36	K34	Chan B is J2- 32, 33, 31
2	Chan C, Pin 73	J5-38, 37, 36	K35	Chan C is J2- 5, 6, 4
3	Chan D, Pin 73	J5-38, 37, 36	K36	Chan D is J2-2, 3, 1
4	Chan A, Pin 74	J5-13, 12, 11	K37	Chan A is J2- 35, 36, 34
5	Chan B, Pin 74	J5-13, 12, 11	K38	Chan B is J2- 32, 33, 31
6	Chan C, Pin 74	J5-13, 12, 11	K39	Chan C is J2- 5, 6, 4
7	Chan D, Pin 74	J5-13, 12, 11	K40	Chan D is J2-2, 3, 1
8	Chan A, Pin 75	J5-35, 34, 33	K41	Chan A is J2- 35, 36, 34
9	Chan B, Pin 75	J5-35, 34, 33	K42	Chan B is J2- 32, 33, 31
10	Chan C, Pin 75	J5-35, 34, 33	K43	Chan C is J2- 5, 6, 4
11	Chan D, Pin 75	J5-35, 34, 33	K44	Chan D is J2-2, 3, 1
12	Chan A, Pin 76	J5-10, 9, 8	K45	Chan A is J2- 35, 36, 34
13	Chan B, Pin 76	J5-10, 9, 8	K46	Chan B is J2- 32, 33, 31
14	Chan C, Pin 76	J5-10, 9, 8	K47	Chan C is J2- 5, 6, 4
15	Chan D, Pin 76	J5-10, 9, 8	K48	Chan D is J2-2, 3, 1

REGISTER: 8044h, , MODE: 32 bit, BITS 16-31, ,

REGISTER: 8046h, , MODE: 16 bit, ,

FUNCTION: Control Matrix Pins 77-80, Channels A , B, C, D, Daughter Board #2, , , ,

BITS	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 77	J5-32, 31, 30	K49	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 77	J5-32, 31, 30	K50	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 77	J5-32, 31, 30	K51	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 77	J5-32, 31, 30	K52	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 78	J5-7, 6, 5	K53	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 78	J5-7, 6, 5	K54	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 78	J5-7, 6, 5	K55	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 78	J5-7, 6, 5	K56	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 79	J5-29, 28, 27	K57	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 79	J5-29, 28, 27	K58	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 79	J5-29, 28, 27	K59	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 79	J5-29, 28, 27	K60	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 80	J5-4, 3, 2	K61	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 80	J5-4, 3, 2	K62	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 80	J5-4, 3, 2	K63	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 80	J5-4, 3, 2	K64	Chan D is J2-2, 3, 1

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8048h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 81-84, Channels A , B, C, D, Daughter Board #2, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 81	J6-50, 49, 48	K65	Chan A is J2- 35, 36, 34
1	Chan B, Pin 81	J6-50, 49, 48	K66	Chan B is J2- 32, 33, 31
2	Chan C, Pin 81	J6-50, 49, 48	K67	Chan C is J2- 5, 6, 4
3	Chan D, Pin 81	J6-50, 49, 48	K68	Chan D is J2-2, 3, 1
4	Chan A, Pin 82	J6-25, 24, 23	K69	Chan A is J2- 35, 36, 34
5	Chan B, Pin 82	J6-25, 24, 23	K70	Chan B is J2- 32, 33, 31
6	Chan C, Pin 82	J6-25, 24, 23	K71	Chan C is J2- 5, 6, 4
7	Chan D, Pin 82	J6-25, 24, 23	K72	Chan D is J2-2, 3, 1
8	Chan A, Pin 83	J6-47, 46, 45	K73	Chan A is J2- 35, 36, 34
9	Chan B, Pin 83	J6-47, 46, 45	K74	Chan B is J2- 32, 33, 31
10	Chan C, Pin 83	J6-47, 46, 45	K75	Chan C is J2- 5, 6, 4
11	Chan D, Pin 83	J6-47, 46, 45	K76	Chan D is J2-2, 3, 1
12	Chan A, Pin 84	J6-22, 21, 20	K77	Chan A is J2- 35, 36, 34
13	Chan B, Pin 84	J6-22, 21, 20	K78	Chan B is J2- 32, 33, 31
14	Chan C, Pin 84	J6-22, 21, 20	K79	Chan C is J2- 5, 6, 4
15	Chan D, Pin 84	J6-22, 21, 20	K80	Chan D is J2-2, 3, 1

REGISTER: 8048h, , MODE: 32 bit, BITS 16-31, ,

REGISTER: 804ah, , MODE: 16 bit, ,

FUNCTION: Control Matrix Pins 85-88, Channels A , B, C, D, Daughter Board #2, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 85	J6-44, 43, 42	K81	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 85	J6-44, 43, 42	K82	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 85	J6-44, 43, 42	K83	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 85	J6-44, 43, 42	K84	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 86	J6-19, 18, 17	K85	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 86	J6-19, 18, 17	K86	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 86	J6-19, 18, 17	K87	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 86	J6-19, 18, 17	K88	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 87	J6-41, 40, 39	K89	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 87	J6-41, 40, 39	K90	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 87	J6-41, 40, 39	K91	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 87	J6-41, 40, 39	K92	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 88	J6-16, 15, 14	K93	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 88	J6-16, 15, 14	K94	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 88	J6-16, 15, 14	K95	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 88	J6-16, 15, 14	K96	Chan D is J2-2, 3, 1

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 804ch, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 89-92, Channels A , B, C, D, Daughter Board #2, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 89	J6-38, 37, 36	K97	Chan A is J2- 35, 36, 34
1	Chan B, Pin 89	J6-38, 37, 36	K98	Chan B is J2- 32, 33, 31
2	Chan C, Pin 89	J6-38, 37, 36	K99	Chan C is J2- 5, 6, 4
3	Chan D, Pin 89	J6-38, 37, 36	K100	Chan D is J2-2, 3, 1
4	Chan A, Pin 90	J6-13, 12, 11	K101	Chan A is J2- 35, 36, 34
5	Chan B, Pin 90	J6-13, 12, 11	K102	Chan B is J2- 32, 33, 31
6	Chan C, Pin 90	J6-13, 12, 11	K103	Chan C is J2- 5, 6, 4
7	Chan D, Pin 90	J6-13, 12, 11	K104	Chan D is J2-2, 3, 1
8	Chan A, Pin 91	J6-35, 34, 33	K105	Chan A is J2- 35, 36, 34
9	Chan B, Pin 91	J6-35, 34, 33	K106	Chan B is J2- 32, 33, 31
10	Chan C, Pin 91	J6-35, 34, 33	K107	Chan C is J2- 5, 6, 4
11	Chan D, Pin 91	J6-35, 34, 33	K108	Chan D is J2-2, 3, 1
12	Chan A, Pin 92	J6-10, 9, 8	K109	Chan A is J2- 35, 36, 34
13	Chan B, Pin 92	J6-10, 9, 8	K110	Chan B is J2- 32, 33, 31
14	Chan C, Pin 92	J6-10, 9, 8	K111	Chan C is J2- 5, 6, 4
15	Chan D, Pin 92	J6-10, 9, 8	K112	Chan D is J2-2, 3, 1

REGISTER: 804ch, , MODE: 32 bit, BITS 16-31, ,

REGISTER: 804eh, , MODE: 16 bit, ,

FUNCTION: Control Matrix Pins 93-96, Channels A , B, C, D, Daughter Board #2, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 93	J6-32, 31, 30	K113	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 93	J6-32, 31, 30	K114	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 93	J6-32, 31, 30	K115	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 93	J6-32, 31, 30	K116	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 94	J6-7, 6, 5	K117	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 94	J6-7, 6, 5	K118	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 94	J6-7, 6, 5	K119	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 94	J6-7, 6, 5	K120	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 95	J6-29, 28, 27	K121	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 95	J6-29, 28, 27	K122	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 95	J6-29, 28, 27	K123	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 95	J6-29, 28, 27	K124	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 96	J6-4, 3, 2	K125	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 96	J6-4, 3, 2	K126	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 96	J6-4, 3, 2	K127	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 96	J6-4, 3, 2	K128	Chan D is J2-2, 3, 1

Daughterboard #2 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8050h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix, Isolation relays, Channels A , B, C, D, Daughter Board #2, , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan A, Grp 1	J2-35, 36, 34	K129	Chan A is J2- 35, 36, 34
1	Isolation Chan B, Grp 1	J2-32, 33, 31	K130	Chan B is J2- 32, 33, 31
2	Isolation Chan C, Grp 1	J2-5, 6, 4	K131	Chan C is J2- 5, 6, 4
3	Isolation Chan D, Grp 1	J2-2, 3, 1	K132	Chan D is J2-2, 3, 1
4	Isolation Chan A, Grp 2	J2-35, 36, 34	K133	Chan A is J2- 35, 36, 34
5	Isolation Chan B, Grp 2	J2-32, 33, 31	K134	Chan B is J2- 32, 33, 31
6	Isolation Chan C, Grp 2	J2-5, 6, 4	K135	Chan C is J2- 5, 6, 4
7	Isolation Chan D, Grp 2	J2-2, 3, 1	K136	Chan D is J2-2, 3, 1
8				
9				
10				
11				
12				
13				
14				
15				

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010**MSB**

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8060h- lower			8060h		K16	K15	K14	K13	K12	K11	K10	K9

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8060h- lower			8060h		K8	K7	K6	K5	K4	K3	K2	K1

MSB

MODE: 32		MODE : 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8060h- upper		8062h		K32	K31	K30	K29	K28	K27	K26	K25

LSB

MODE: 32		MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8060h- upper		8062h		K24	K23	K22	K21	K20	K19	K18	K17

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8064h- lower			8064h		K48	K47	K46	K45	K44	K43	K42	K41

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8064h- lower			8064h		K40	K39	K38	K37	K36	K35	K34	K33

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010<P12>
MSB

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8064h- upper			8066h		K64	K63	K62	K61	K60	K59	K58	K57

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8064h- upper			8066h		K56	K55	K54	K53	K52	K51	K50	K49

MSB

MODE: 32			MODE: 16		15	14	13	12	11	10	9	8
8068h- lower			8068h		K80	K79	K78	K77	K76	K75	K74	K73

LSB

MODE: 32			MODE: 16		7	6	5	4	3	2	1	0
8068h- lower			8068h		K72	K71	K70	K69	K68	K67	K66	K65

MSB

MODE: 32			MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
8068h- upper			806ah		K96	K95	K94	K93	K92	K91	K90	K89

LSB

MODE: 32			MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8068h- upper			806ah		K88	K87	K86	K85	K84	K83	K82	K81

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010
MSB

MODE: 32		MODE: 16		15	14	13	12	11	10	9	8
806ch- lower		806ch		K112	K111	K110	K109	K108	K107	K106	K105

LSB

MODE: 32		MODE: 16		7	6	5	4	3	2	1	0
806ch- lower		806ch		K104	K103	K102	K101	K100	K99	K98	K97

MSB

MODE: 32		MODE: 16		15(31)	14(30)	13(29)	12(28)	11(27)	10(26)	9(25)	8(24)
806ch- upper		806eh		K128	K127	K126	K125	K124	K123	K122	K121

LSB

MODE: 32		MODE: 16		7(23)	6(22)	5(21)	4(20)	3(19)	2(18)	1(17)	0(16)
8064h- upper		806eh		K120	K119	K118	K117	K116	K115	K114	K113

MSB

MODE: 32		MODE: 16		15	14	13	12	11	10	9	8
8070h- lower		8070h		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LSB

MODE: 32		MODE: 16		7	6	5	4	3	2	1	0
8070h- lower		8070h		K136	K135	K134	K133	K132	K131	K130	K129

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8060h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 97-100, Channels A , B, C, D, Daughter Board #3, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 97	J7-50, 49, 48	K1	Chan A is J2- 35, 36, 34
1	Chan B, Pin 97	J7-50, 49, 48	K2	Chan B is J2- 32, 33, 31
2	Chan C, Pin 97	J7-50, 49, 48	K3	Chan C is J2- 5, 6, 4
3	Chan D, Pin 97	J7-50, 49, 48	K4	Chan D is J2-2, 3, 1
4	Chan A, Pin 98	J7-25, 24, 23	K5	Chan A is J2- 35, 36, 34
5	Chan B, Pin 98	J7-25, 24, 23	K6	Chan B is J2- 32, 33, 31
6	Chan C, Pin 98	J7-25, 24, 23	K7	Chan C is J2- 5, 6, 4
7	Chan D, Pin 98	J7-25, 24, 23	K8	Chan D is J2-2, 3, 1
8	Chan A, Pin 99	J7-47, 46, 45	K9	Chan A is J2- 35, 36, 34
9	Chan B, Pin 99	J7-47, 46, 45	K10	Chan B is J2- 32, 33, 31
10	Chan C, Pin 99	J7-47, 46, 45	K11	Chan C is J2- 5, 6, 4
11	Chan D, Pin 99	J7-47, 46, 45	K12	Chan D is J2-2, 3, 1
12	Chan A, Pin 100	J7-22, 21, 20	K13	Chan A is J2- 35, 36, 34
13	Chan B, Pin 100	J7-22, 21, 20	K14	Chan B is J2- 32, 33, 31
14	Chan C, Pin 100	J7-22, 21, 20	K15	Chan C is J2- 5, 6, 4
15	Chan D, Pin 100	J7-22, 21, 20	K16	Chan D is J2-2, 3, 1

REGISTER: 8060h, , MODE: 32 bit, BITS 16-31, ,
REGISTER: 8062h, , MODE: 16 bit, ,
FUNCTION: Control Matrix Pins 101-104, Channels A , B, C, D, Daughter Board #3, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 101	J7-44, 43, 42	K17	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 101	J7-44, 43, 42	K18	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 101	J7-44, 43, 42	K19	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 101	J7-44, 43, 42	K20	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 102	J7-19, 18, 17	K21	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 102	J7-19, 18, 17	K22	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 102	J7-19, 18, 17	K23	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 102	J7-19, 18, 17	K24	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 103	J7-41, 40, 39	K25	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 103	J7-41, 40, 39	K26	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 103	J7-41, 40, 39	K27	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 103	J7-41, 40, 39	K28	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 104	J7-16, 15, 14	K29	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 104	J7-16, 15, 14	K30	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 104	J7-16, 15, 14	K31	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 104	J7-16, 15, 14	K32	Chan D is J2-2, 3, 1

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8064h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 105-108, Channels A , B, C, D, Daughter Board #3, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 105	J7-38, 37, 36	K33	Chan A is J2- 35, 36, 34
1	Chan B, Pin 105	J7-38, 37, 36	K34	Chan B is J2- 32, 33, 31
2	Chan C, Pin 105	J7-38, 37, 36	K35	Chan C is J2- 5, 6, 4
3	Chan D, Pin 105	J7-38, 37, 36	K36	Chan D is J2-2, 3, 1
4	Chan A, Pin 106	J7-13, 12, 11	K37	Chan A is J2- 35, 36, 34
5	Chan B, Pin 106	J7-13, 12, 11	K38	Chan B is J2- 32, 33, 31
6	Chan C, Pin 106	J7-13, 12, 11	K39	Chan C is J2- 5, 6, 4
7	Chan D, Pin 106	J7-13, 12, 11	K40	Chan D is J2-2, 3, 1
8	Chan A, Pin 107	J7-35, 34, 33	K41	Chan A is J2- 35, 36, 34
9	Chan B, Pin 107	J7-35, 34, 33	K42	Chan B is J2- 32, 33, 31
10	Chan C, Pin 107	J7-35, 34, 33	K43	Chan C is J2- 5, 6, 4
11	Chan D, Pin 107	J7-35, 34, 33	K44	Chan D is J2-2, 3, 1
12	Chan A, Pin 108	J7-10, 9, 8	K45	Chan A is J2- 35, 36, 34
13	Chan B, Pin 108	J7-10, 9, 8	K46	Chan B is J2- 32, 33, 31
14	Chan C, Pin 108	J7-10, 9, 8	K47	Chan C is J2- 5, 6, 4
15	Chan D, Pin 108	J7-10, 9, 8	K48	Chan D is J2-2, 3, 1

REGISTER: 8064h, , MODE: 32 bit, BITS 16-31, ,
REGISTER: 8066h, , MODE: 16 bit, ,
FUNCTION: Control Matrix Pins 109-112, Channels A , B, C, D, Daughter Board #3, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 109	J7-32, 31, 30	K49	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 109	J7-32, 31, 30	K50	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 109	J7-32, 31, 30	K51	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 109	J7-32, 31, 30	K52	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 110	J7-7, 6, 5	K53	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 110	J7-7, 6, 5	K54	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 110	J7-7, 6, 5	K55	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 110	J7-7, 6, 5	K56	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 111	J7-29, 28, 27	K57	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 111	J7-29, 28, 27	K58	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 111	J7-29, 28, 27	K59	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 111	J7-29, 28, 27	K60	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 112	J7-4, 3, 2	K61	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 112	J7-4, 3, 2	K62	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 112	J7-4, 3, 2	K63	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 112	J7-4, 3, 2	K64	Chan D is J2-2, 3, 1

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8068h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 113-116, Channels A , B, C, D, Daughter Board #3, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 113	J8-50, 49, 48	K65	Chan A is J2- 35, 36, 34
1	Chan B, Pin 113	J8-50, 49, 48	K66	Chan B is J2- 32, 33, 31
2	Chan C, Pin 113	J8-50, 49, 48	K67	Chan C is J2- 5, 6, 4
3	Chan D, Pin 113	J8-50, 49, 48	K68	Chan D is J2-2, 3, 1
4	Chan A, Pin 114	J8-25, 24, 23	K69	Chan A is J2- 35, 36, 34
5	Chan B, Pin 114	J8-25, 24, 23	K70	Chan B is J2- 32, 33, 31
6	Chan C, Pin 114	J8-25, 24, 23	K71	Chan C is J2- 5, 6, 4
7	Chan D, Pin 114	J8-25, 24, 23	K72	Chan D is J2-2, 3, 1
8	Chan A, Pin 115	J8-47, 46, 45	K73	Chan A is J2- 35, 36, 34
9	Chan B, Pin 115	J8-47, 46, 45	K74	Chan B is J2- 32, 33, 31
10	Chan C, Pin 115	J8-47, 46, 45	K75	Chan C is J2- 5, 6, 4
11	Chan D, Pin 115	J8-47, 46, 45	K76	Chan D is J2-2, 3, 1
12	Chan A, Pin 116	J8-22, 21, 20	K77	Chan A is J2- 35, 36, 34
13	Chan B, Pin 116	J8-22, 21, 20	K78	Chan B is J2- 32, 33, 31
14	Chan C, Pin 116	J8-22, 21, 20	K79	Chan C is J2- 5, 6, 4
15	Chan D, Pin 116	J8-22, 21, 20	K80	Chan D is J2-2, 3, 1

REGISTER: 8068h, , MODE: 32 bit, BITS 16-31, ,

REGISTER: 806ah, , MODE: 16 bit, ,

FUNCTION: Control Matrix Pins 117-120, Channels A , B, C, D, Daughter Board #3, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 117	J8-44, 43, 42	K81	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 117	J8-44, 43, 42	K82	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 117	J8-44, 43, 42	K83	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 117	J8-44, 43, 42	K84	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 118	J8-19, 18, 17	K85	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 118	J8-19, 18, 17	K86	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 118	J8-19, 18, 17	K87	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 118	J8-19, 18, 17	K88	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 119	J8-41, 40, 39	K89	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 119	J8-41, 40, 39	K90	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 119	J8-41, 40, 39	K91	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 119	J8-41, 40, 39	K92	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 120	J8-16, 15, 14	K93	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 120	J8-16, 15, 14	K94	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 120	J8-16, 15, 14	K95	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 120	J8-16, 15, 14	K96	Chan D is J2-2, 3, 1

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 806ch, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix Pins 121-124, Channels A , B, C, D, Daughter Board #3, , , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 121	J8-38, 37, 36	K97	Chan A is J2- 35, 36, 34
1	Chan B, Pin 121	J8-38, 37, 36	K98	Chan B is J2- 32, 33, 31
2	Chan C, Pin 121	J8-38, 37, 36	K99	Chan C is J2- 5, 6, 4
3	Chan D, Pin 121	J8-38, 37, 36	K100	Chan D is J2-2, 3, 1
4	Chan A, Pin 122	J8-13, 12, 11	K101	Chan A is J2- 35, 36, 34
5	Chan B, Pin 122	J8-13, 12, 11	K102	Chan B is J2- 32, 33, 31
6	Chan C, Pin 122	J8-13, 12, 11	K103	Chan C is J2- 5, 6, 4
7	Chan D, Pin 122	J8-13, 12, 11	K104	Chan D is J2-2, 3, 1
8	Chan A, Pin 123	J8-35, 34, 33	K105	Chan A is J2- 35, 36, 34
9	Chan B, Pin 123	J8-35, 34, 33	K106	Chan B is J2- 32, 33, 31
10	Chan C, Pin 123	J8-35, 34, 33	K107	Chan C is J2- 5, 6, 4
11	Chan D, Pin 123	J8-35, 34, 33	K108	Chan D is J2-2, 3, 1
12	Chan A, Pin 124	J8-10, 9, 8	K109	Chan A is J2- 35, 36, 34
13	Chan B, Pin 124	J8-10, 9, 8	K110	Chan B is J2- 32, 33, 31
14	Chan C, Pin 124	J8-10, 9, 8	K111	Chan C is J2- 5, 6, 4
15	Chan D, Pin 124	J8-10, 9, 8	K112	Chan D is J2-2, 3, 1

REGISTER: 806ch, , MODE: 32 bit, BITS 16-31, ,

REGISTER: 806eh, , MODE: 16 bit, ,

FUNCTION: Control Matrix Pins 125-128, Channels A , B, C, D, Daughter Board #3, , , ,

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 125	J8-32, 31, 30	K113	Chan A is J2- 35, 36, 34
1(17)	Chan B, Pin 125	J8-32, 31, 30	K114	Chan B is J2- 32, 33, 31
2(18)	Chan C, Pin 125	J8-32, 31, 30	K115	Chan C is J2- 5, 6, 4
3(19)	Chan D, Pin 125	J8-32, 31, 30	K116	Chan D is J2-2, 3, 1
4(20)	Chan A, Pin 126	J8-7, 6, 5	K117	Chan A is J2- 35, 36, 34
5(21)	Chan B, Pin 126	J8-7, 6, 5	K118	Chan B is J2- 32, 33, 31
6(22)	Chan C, Pin 126	J8-7, 6, 5	K119	Chan C is J2- 5, 6, 4
7(23)	Chan D, Pin 126	J8-7, 6, 5	K120	Chan D is J2-2, 3, 1
8(24)	Chan A, Pin 127	J8-29, 28, 27	K121	Chan A is J2- 35, 36, 34
9(25)	Chan B, Pin 127	J8-29, 28, 27	K122	Chan B is J2- 32, 33, 31
10(26)	Chan C, Pin 127	J8-29, 28, 27	K123	Chan C is J2- 5, 6, 4
11(27)	Chan D, Pin 127	J8-29, 28, 27	K124	Chan D is J2-2, 3, 1
12(28)	Chan A, Pin 128	J8-4, 3, 2	K125	Chan A is J2- 35, 36, 34
13(29)	Chan B, Pin 128	J8-4, 3, 2	K126	Chan B is J2- 32, 33, 31
14(30)	Chan C, Pin 128	J8-4, 3, 2	K127	Chan C is J2- 5, 6, 4
15(31)	Chan D, Pin 128	J8-4, 3, 2	K128	Chan D is J2-2, 3, 1

Daughterboard #3 for Model 3000-45B PCB Number: SCH85004010**REGISTER: 8070h, , MODE: 16/32 bit, ,****FUNCTION: Control Matrix, Isolation relays, Channels A , B, C, D, Daughter Board #3, , ,**

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan A, Grp 1	J2-35, 36, 34	K129	Chan A is J2- 35, 36, 34
1	Isolation Chan B, Grp 1	J2-32, 33, 31	K130	Chan B is J2- 32, 33, 31
2	Isolation Chan C, Grp 1	J2-5, 6, 4	K131	Chan C is J2- 5, 6, 4
3	Isolation Chan D, Grp 1	J2-2, 3, 1	K132	Chan D is J2-2, 3, 1
4	Isolation Chan A, Grp 2	J2-35, 36, 34	K133	Chan A is J2- 35, 36, 34
5	Isolation Chan B, Grp 2	J2-32, 33, 31	K134	Chan B is J2- 32, 33, 31
6	Isolation Chan C, Grp 2	J2-5, 6, 4	K135	Chan C is J2- 5, 6, 4
7	Isolation Chan D, Grp 2	J2-2, 3, 1	K136	Chan D is J2-2, 3, 1
8				
9				
10				
11				
12				
13				
14				
15				

