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40-560A User Manual

PXI BRIC™ Multi-Slot Matrix Module



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pickeringtest.com

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For Technical Support please contact Pickering Interfaces either by phone, the website or via e-mail.

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Products serviced and repaired outside of the warranty period are warranted for ninety days.

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Pickering Interfaces operates under an environmental management system similar to ISO 14001.

Pickering Interfaces strives to fulfil all relevant environmental laws and regulations and reduce wastes and releases to the environment. Pickering Interfaces aims to design and operate products in a way that protects the environment and the health and safety of its employees, customers and the public. Pickering Interfaces endeavours to develop and manufacture products that can be produced, distributed, used and recycled, or disposed of, in a safe and environmentally friendly manner.

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PRODUCT SAFETY

SAFETY SYMBOLS

The following safety symbols may be used on the product and throughout the product documentation.

MEANING / DESCRIPTION	SYMBOL
PROTECTIVE EARTH (GROUND) To identify any terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of a protective earth (ground) electrode.	
DANGEROUS VOLTAGE To indicate hazards arising from dangerous voltages.	
WARNING / CAUTION An appropriate safety instruction should be followed or caution to a potential hazard exists. Refer to the relevant instructions detailed within the product manual.	
HEAVY If this product is heavy reference should be made to the safety instructions for provisions of lifting and moving.	
STATIC SENSITIVE To indicate that static sensitive devices are present and handling precautions should be followed.	

CONTENTS

Copyright Statement II

Technical Support and Warranty III

Product Safety IV

Contents (this page) V

Warnings and Cautions VII

Section 1
Technical Specification 1.1

Section 2
Technical Description 2.1
- Mechanical Description 2.1
- Functional Description - Single Bus 2.3
- Functional Description - Dual Bus 2.5

Section 3
Installation 3.1
- Pre Operation Checks 3.1
- Hardware Installation 3.2
- Software Installation 3.2
- Testing Operation 3.3

Section 4
Programming Guide 4.1
- Programming Options for PXI Modules 4.1
- Programming The Module 4.2
- Programming The 40-560A-M 4.4

Section 5
Connector Information 5.1

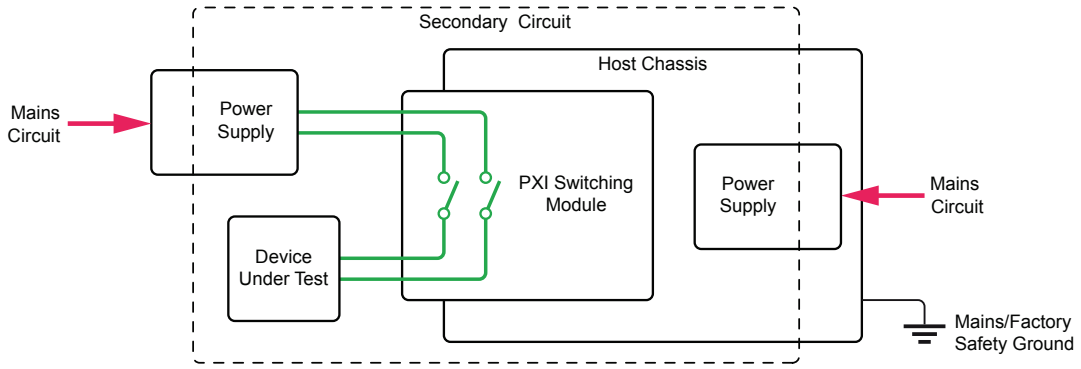
Section 6
Trouble Shooting 6.1

Section 7
Maintenance Information 7.1
- Switching System Test Tools 7.1
- Fuse Replacement 7.1
- Relay Look-Up Tables 7.2
- PCB Layout Diagrams 7.105
- Daughter Board Removal/Replacement 7.109

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WARNINGS AND CAUTIONS

WARNING - HAZARDOUS ENVIRONMENTS	SYMBOL
This product is not specifically designed for use in hazardous environments, for example in explosive atmospheres. If the product is to be used in hazardous environments we recommend that the user ensures suitable protective measures are taken.	

WARNING - DANGER OF ELECTRIC SHOCK	SYMBOL
This module may contain hazardous voltages. Before removing the module from the rack remove all supplies and disconnect user I/O signals. Unused slots in the host chassis are populated with blanking plates to prevent access to user I/O signals that may be present. Blanking panels are available to order from Pickering in a variety of slot widths. If the product is not used in this manner for example by using an extender card then additional care must be taken to avoid contact with exposed signals. Not to be used in safety critical circuits, refer to the Pickering Interfaces' terms & conditions of sale. This module must not be used for the switching of Mains Circuits. For the switching of voltages up to the module's full specification, Secondary Circuit power supplies and the Device Under Test must be fully isolated from the Mains Circuit and the safety earth. The host chassis must be correctly installed and be connected to mains or factory safety ground, please refer to your chassis installation manual.  **Diagram Showing Separation Between The Mains Circuit and Secondary Circuit / DUT** For the purposes of this document, a Mains Circuit is an installation classified as Overvoltage Category II up to 300V. Separation between the Secondary Circuit and Mains Circuit is achieved by a transformer in which the primary windings are separated from the secondary windings by reinforced insulation, double insulation, or a screen connected to the protective conductor terminal.	

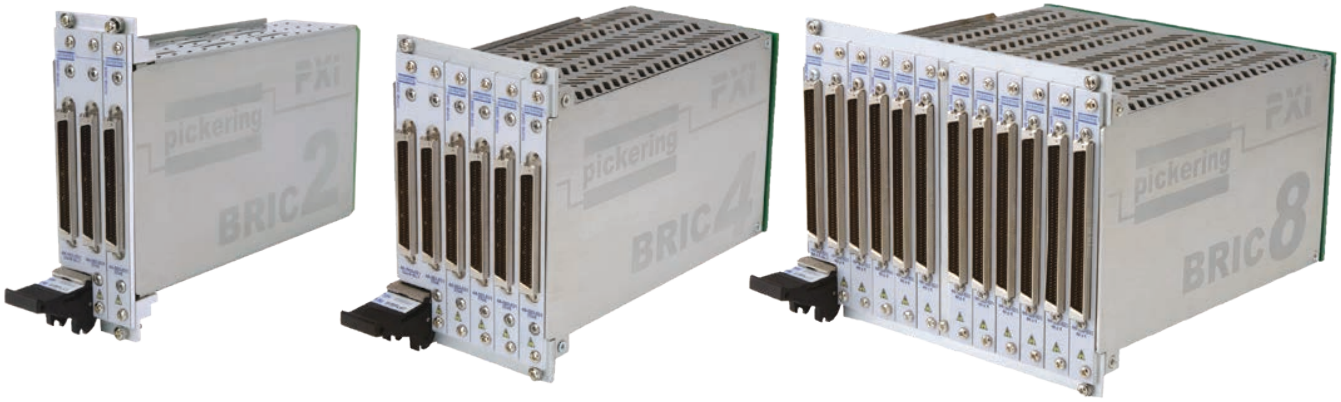
CAUTION - HANDLING OF ELECTROSTATIC-SENSITIVE DEVICES	SYMBOL
Certain semiconductor devices used in this equipment are liable to damage due to static voltage. Observe the following precautions when handling these devices in their unterminated state, or sub-assemblies containing these devices: 1. Persons removing sub-assemblies from equipment using these devices must be earthed by a wrist strap and a resistor at the point provided on the equipment. 2. Soldering irons used during the repair operations must be low voltage types with earthed tips and isolated from the mains voltage by a double insulated transformer. 3. Outer clothing worn must be unable to generate static charges. 4. Printed Circuit Boards (PCBs) fitted with these devices must be stored and transported in anti-static bags.	

CAUTION - PRODUCT DOCUMENTATION	SYMBOL
Suitably qualified & trained users should ensure that the accompanying documentation is fully read and understood before attempting to install or operate the product.	

SAFETY INSTRUCTIONS

SAFETY INSTRUCTIONS
All cleaning and servicing requires the equipment to be isolated and disconnected from the power source and user I/O signals (refer to the Maintenance Section). • Appropriate manual handling procedures should be followed as dictated by the weight of the individual module or the combined weight of the modules & chassis. • Should a fault occur with the module or chassis, immediately isolate and disconnect the incoming power to the chassis and the user I/O signals. • Ensure the equipment is installed, operated and maintained by trained and authorised personnel. • For suitably equipped products in the event of an emergency press the red “emergency stop” button situated on the front of the unit.

SECTION 1 - TECHNICAL SPECIFICATION



- Integrated PXI Matrix Module With Built In High Performance Screened Analog Bus
- Available as 2, 4 and 8 Slot 3U PXI Modules
- 1 Pole Switching
- Switch up to 140 V, 0.5 A, 10 W
- Automatic Isolation Relay Switches Maximizes Bandwidth and Matrix Reliability
- Simplified Maintenance Through The Use of Leaded Reed Relays
- Support in Any PXI Compliant Chassis or Control Through Ethernet in Our LXI Modular Chassis
- VISA, IVI & Kernel Drivers Supplied for Windows
- Built-In Diagnostics - ***BIRST*** ™
- Supported by ***eBIRST*** ™
- 3 Year Warranty

BRIC™ PXI Reed Relay Matrices

The 40-560A PXI BRIC is an ultra high density matrix module. It is available in 2, 4 or 8-slot sizes to suit high performance PXI matrix requirements and is constructed using instrumentation quality reed relays.

With its high level of switching density, the 40-560A PXI matrix allows a complete Functional ATE system to be housed in a single 3U PXI chassis, BRIC modules allow the use of much lower cost 8 or 14 slot PXI chassis.

- **BRIC2** is a 2-slot PXI Module, this can hold up to 3 matrix daughtercards, >1100 crosspoints.
- **BRIC4** is a 4-slot PXI Module, this can hold up to 6 matrix daughtercards, >2200 crosspoints.
- **BRIC8** is an 8-slot PXI Module, which can hold up to 12 matrix daughtercards, >4400 crosspoints.

High Reliability and Easy of Use

All models are constructed using the world's smallest and highest reliability ruthenium reed relays, offering >10^9 operations to give maximum switching confidence with long life and very stable contact resistance.

The 40-560A PXI BRICs are designed to minimize the cost and complexity of cable assemblies to the device under test and instrumentation. Analog busing is housed within the module using a high performance screened analog backplane. Pickering can construct custom cable assemblies for all of our PXI modules, please contact sales office for further assistance.

Built-In Relay Self-Test - *BIRST*

The *BIRST* facility provides a quick and simple way of finding relay failures. No test equipment is required, simply disconnect the UUT from the BRIC's connectors, launch the *BIRST* application and the tool will run a diagnostic test that will find all relays with faulty contacts.

For more information go to: pickeringtest.com/birst

Supported by *eBIRST*

These modules are also supported by *eBIRST*. These test tools simplify switching fault-finding by quickly testing the system and graphically identifying the faulty relay.

For more information go to: pickeringtest.com/ebirst

Pickering Reed Relay BRIC Advantages

- Only uses the highest quality instrument grade reed relays – be wary of inferior copies.
- Simplified cabling and interconnection for large matrix solutions.
- Extensive accessory support.
- Built in self-test to find defective and degrading relays with full path resistance characterisation.
- Simplified operation through automated isolation relay operation and single matrix presentation.
- Highest density reed relay solution in PXI.
- Simple relay replacement and ease of field service.
- Extensive range of configurations and solutions.
- Fast operation through VISA driver with multiple relay operation in one command or have the convenience and simplicity of IVI drivers.

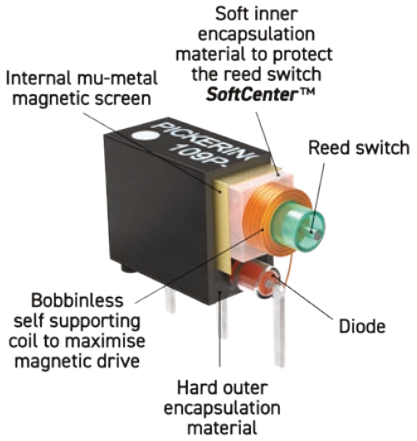
Pickering *SoftCenter*™ Instrumentation Grade Reed Relays

Reed relay switching solutions can only be as good as the relays used, and Pickering uses only the highest quality instrumentation grade reed relays manufactured by our Relay Division.

These are the reed relays of choice for ATE manufacturers, providing the most reliable and consistent switching available in the industry.

Pickering has over 50 years of experience designing relays to the highest quality levels demanded by the ATE industry. We know what makes a good relay and how to construct a reliable relay.

All our reed relays use ***SoftCenter*** construction that allows for the constant expansion and contraction of the reed relay coils and glass body without fear of damage to wires or glass seals. The high performance of reed relays is due to their hermetic structure, and only ***SoftCenter*** provides the means to reliably avoid damage, ensuring long contact life.

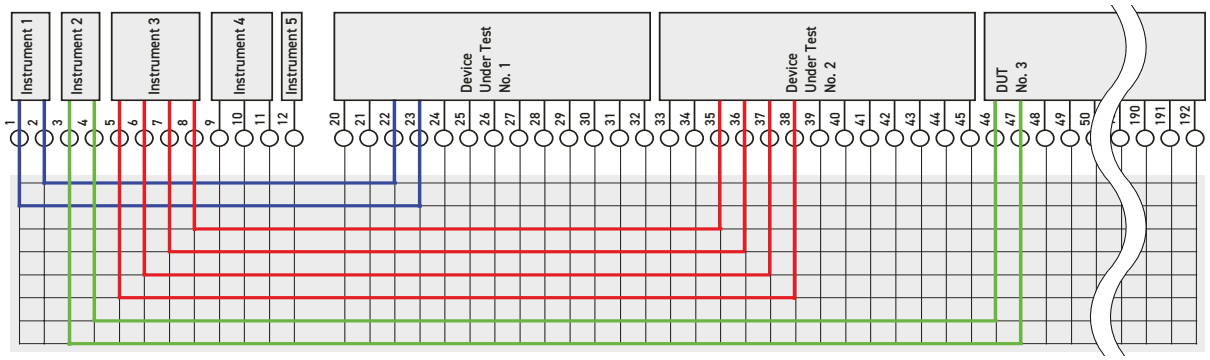


So choose the right matrix solution, and use the best quality reed relays by choosing Pickering Interfaces' reed relay BRICs.

Pickering's Range of BRIC Matrix Modules

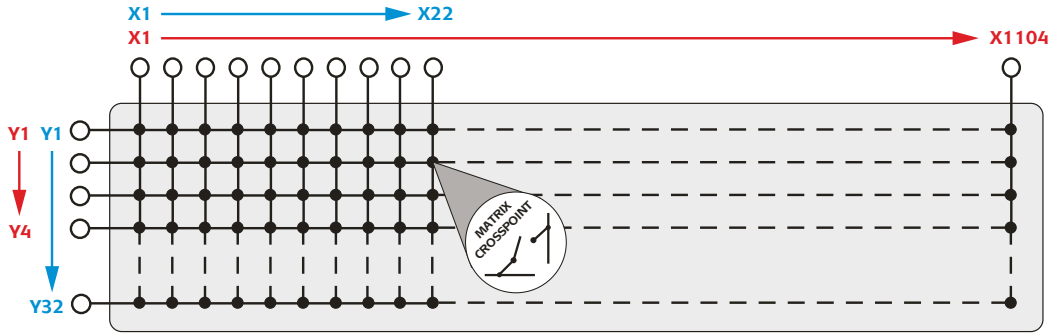
40-558 - 1-Pole Matrix - 0.5 A Reed Relay	
BRIC2	Up to 252x6, 192x8, 126x12 or 96x16
BRIC4	Up to 504x6, 384x8, 252x12 or 192x16
BRIC8	Up to 1008x6, 768x8, 504x12 or 384x16
BRIC12	Up to 1512x6, 1152x8, 756x12 or 576x16
40-559 - 1-Pole Matrix - 1 A Reed Relay	
BRIC2	256x4, 168x6, 128x8, 84x12 or 64x16
BRIC4	Up to 512x4, 336x6, 256x8, 168x12 or 128x16
BRIC8	Up to 1024x4, 672x6, 512x8, 336x12 or 256x16
40-560A - 1-Pole Matrix - 0.5 A Reed Relay	
BRIC2	Up to 276x4, 138x8 or 69x16
BRIC4	Up to 552x4, 276x8 or 138x16
BRIC8	Up to 1104x4, 552x8 or 276x16
40-561A - 1-Pole or 2-Pole Matrix - 0.5 A Reed Relay	
BRIC2	Up to 90x8 or 45x16
BRIC4	Up to 180x8 or 90x16
BRIC8	Up to 360x8 or 180x16
40-562B - 1-Pole or 2-Pole Matrix - 1 A Reed Relay	
BRIC2	Up to 132x4, 66x8, 33x16 or 15x32
BRIC4	Up to 264x4, 132x8, 66x16 or 30x32
BRIC8	Up to 528x4, 264x8, 132x16 or 60x32
BRIC12	Up to 792x4, 396x8, 198x16 or 90x32
40-563A - 1-Pole Matrix - 0.25 A Solid State	
BRIC2	Up to 96x8
BRIC4	Up to 192x8
BRIC8	Up to 384x8
40-565B - 2-Pole Matrix - 2 A Electro-mechanical Relay	
BRIC2	Up to 58x8
BRIC4	Up to 116x8
BRIC8	Up to 232x8
40-566A - 2-Pole Matrix - 2 A Electro-mechanical Relay	
BRIC4	Up to 165x4
BRIC8	Up to 385x4
40-567 - 1-Pole Matrix -2 A Electro-mechanical Relay	
BRIC2	Up to 88x8
BRIC4	Up to 176x8
BRIC8	Up to 352x8
40-568 - 1-Pole Matrix - 2 A Electro-mechanical Relay	
BRIC2	Up to 150x4
BRIC4	Up to 300x4
BRIC8	Up to 600x4
40-596 - 1-Pole Matrix - 2 A Electro-mechanical Relay	
BRIC2	Up to 161x6
BRIC4	Up to 232x6
BRIC8	Up to 464x6
40-597 - 1-Pole Matrix - 2 A Electro-mechanical Relay	
BRIC2	Up to 64x12
BRIC4	Up to 128x12
BRIC8	Up to 356x12
40-598 - 1-Pole Matrix - 2 A Electro-mechanical Relay	
BRIC2	Up to 48x16
BRIC4	Up to 96x16
BRIC8	Up to 192x16

How to use the BRIC matrix to connect instrumentation to the UUT

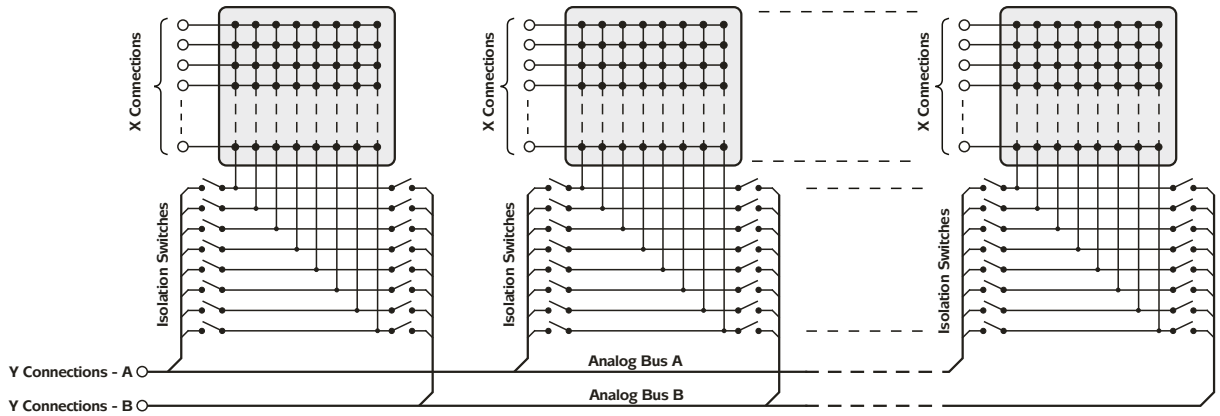


Single Pole Matrices

Single pole 40-560A matrices extend from 46x16 configurations to 1104x4 configurations



Dual Bus Matrices



Relay Type

The 40-560A BRIC modules are fitted with ruthenium sputtered reed relays, these offer very long life with good low level switching performance and excellent contact resistance stability. Spare reed relays are built onto the circuit board to allow easy maintenance with minimum downtime.

All reed relays are manufactured by our Relay Division, for more information please visit: pickeringrelay.com

General Switching Specification

Switch Type:	Ruthenium Reed
Max Switch Voltage:	140 VDC/100 VAC*
Max Power:	10 W
Max Switch Current:	0.5 A
Max Carry Current:	0.5 A
Relay Resistance:	100 mΩ (typical)
On Path Resistance X to X:	1 Ω typical (within same daughter card) 2 Ω typical (across different daughter cards)
Off Path Resistance:	>1x10^9 Ω
Thermal Offset:	200 µV (typical)
Typical Operate Time:	1 ms (0.5 ms for -R version)
Expected Life (Operations) Low Power Load: Full Power Load	 >1x10^9 >1x10^6
Bandwidth For Fully Loaded 276x8 Matrix (40-560A-021-276x8) (for X to Y connection):	20 MHz min, 35 MHz max †
Crosstalk for 40-560A-021-276x8 @1 MHz:	-55 dB
Typical Bandwidth for -R version fully loaded 276 x 8 matrix 40-560A-021-276x8-R:	5 MHz †

* For full voltage rating, signal sources to be switched must be fully isolated from mains supply and safety earth.

† Bandwidth is dependent upon configuration, please contact factory for advice concerning alternative configurations.

Maximum Crosspoint Count

The 40-560A has a suggested maximum number of simultaneously operated crosspoints of 50 per BRIC2, 50 per BRIC4 or 100 per BRIC8 (please contact factory for applications requiring higher closure counts).

RF Specification

Bandwidth (-3 dB):	15 MHz (typical)	
Crosstalk (typical):	10 kHz: 100 kHz: 1 M Hz: 10 MHz	-70 dB -60 dB -40 dB -20 dB
Isolation (typical):	10 kHz: 100 kHz: 1 MHz: 10 MHz	65 dB 60 dB 50 dB 30 dB

Power Requirements

+3.3 V	+5 V	+12 V	-12 V
300 mA (typical)	4 A (typical 1 A)	35 mA (typical)	0

Width and Dimensions

Two, four or eight slot 3U PXI module (CompactPCI).

3D models for these modules in a variety of popular file formats are available on request.

Module Weight

	Empty BRIC	Fully Loaded BRIC
BRIC2	0.6 Kg	1.2 Kg
BRIC4	0.9 Kg	2.1 Kg
BRIC8	1.6 Kg	4.0 Kg
BRIC daughter card	0.2 Kg	

Connectors

PXI bus via 32-bit P1/J1 backplane connector.

Signals via front panel connectors, for pin outs please refer to the operating manual:

- x4 configurations: 96-pin male micro-D connectors
- x8 & x16 configurations: 68-pin male micro-D connectors

Comparison Between 40-560A, 40-561A & 40-562A BRICs

40-560A: Offers the highest density solution for single pole applications only. It offers a wide bandwidth since all versions are fitted with isolation relays as standard that automatically disconnect unused daughter cards from the backplane (matrices can be supplied as -R versions with the isolation relays removed).

40-561A: Offers a similar electrical specification as the 40-560A but with lower density and more options. It can be supplied with 2-pole switching, providing a very dense solution for 2-pole matrices. Isolation switches are provided on 8-wire Y configurations, but not on 16-wire configurations.

40-562A: For applications requiring a higher electrical rating at the expense of density then choose the 40-562A. The 40-562A is available in 1-pole and 2-pole versions.

40-560A BRIC Matrix Product Order Codes

BRIC2 - 2-Slot	
Ultra High Density 1-Pole Matrix	**40-560A-221-(config)**
BRIC4 - 4-Slot	
Ultra High Density 1-Pole Matrix	**40-560A-021-(config)**
BRIC8 - 8-Slot	
Ultra High Density 1-Pole Matrix	**40-560A-121-(config)**

When ordering 40-560A modules the matrix configuration **must** be specified, this includes the prefix code together with the configuration code, see the tables for specific details.

For the expansion of an existing BRIC matrix or replacement of faulty BRIC daughter cards please contact your local sales office.

Product Customization

Pickering modules are designed and manufactured on our own flexible manufacturing lines, giving complete product control and enabling simple customization to meet very specific requirements.

Customization can include:

- Alternative reed relay types
- Mixture of reed relay types
- Alternative number of relays
- Different performance specifications

All customized products are given a unique part number, fully documented and may be ordered at any time in the future. Please contact your local sales office to discuss.

PXI & CompactPCI Compliance

The module is compliant with the PXI Specification 2.2. Local Bus, Trigger Bus and Star Trigger are not implemented.

Uses a 33 MHz 32-bit backplane interface.

Safety & CE Compliance

All modules are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2010, EMC Immunity EN61326-1:2013, Emissions EN55011:2009+A1:2010.

Operating/Storage Conditions

Operating Conditions

Operating Temperature:	0 °C to +55 °C
Humidity:	Up to 90 % non-condensing
Altitude:	5000 m

Storage and Transport Conditions

Storage Temperature:	-20 °C to +75 °C
Humidity:	Up to 90 % non-condensing
Altitude:	15000 m

x4 Configuration Options			
	BRIC2 40-560A-221	**BRIC4 40-560A-021**	**BRIC8 40-560A-121**
184x4 Matrix	**-184x4**	**-184x4**	**-184x4**
276x4 Matrix	**-276x4**	**-276x4**	**-276x4**
368x4 Matrix		**-368x4**	**-368x4**
460x4 Matrix		**-460x4**	**-460x4**
552x4 Matrix		**-552x4**	**-552x4**
644x4 Matrix			**-644x4**
736x4 Matrix			**-736x4**
828x4 Matrix			**-828x4**
920x4 Matrix			**-920x4**
1012x4 Matrix			**-1012x4**
1104x4 Matrix			**-1104x4**
x8 Configuration Options			
	BRIC2 40-560A-221	**BRIC4 40-560A-021**	**BRIC8 40-560A-121**
92x8 Matrix	**-92x8**	**-92x8**	**-92x8**
138x8 Matrix	**-138x8**	**-138x8**	**-138x8**
184x8 Matrix		**-184x8**	**-184x8**
230x8 Matrix		**-230x8**	**-230x8**
276x8 Matrix		**-276x8**	**-276x8**
322x8 Matrix			**-322x8**
368x8 Matrix			**-368x8**
414x8 Matrix			**-414x8**
460x8 Matrix			**-460x8**
506x8 Matrix			**-506x8**
552x8 Matrix			**-552x8**
x16 Configuration Options			
	BRIC2 40-560A-221	**BRIC4 40-560A-021**	**BRIC8 40-560A-121**
46x16 Matrix	**-46x16**	**-46x16**	**-46x16**
69x16 Matrix	**-69x16**	**-69x16**	**-69x16**
92x16 Matrix		**-92x16**	**-92x16**
115x16 Matrix		**-115x16**	**-115x16**
138x16 Matrix		**-138x16**	**-138x16**
161x16 Matrix			**-161x16**
184x16 Matrix			**-184x16**
207x16 Matrix			**-207x16**
230x16 Matrix			**-230x16**
253x16 Matrix			**-253x16**
276x16 Matrix			**-276x16**
Further Options - Isolation Relays Removed			
This will improve path resistance by 150 mΩ but will degrade isolation and bandwith.			**-R**

40-560A Dual Bus BRIC Matrix Product Order Codes

BRIC4 - 4-Slot Ultra High Density Dual Analog Bus 1-Pole Matrix	**40-560-021-(config)**
BRIC8 - 8-Slot Ultra High Density Dual Analog Bus1-Pole Matrix	**40-560-121-(config)**

When ordering 40-560A Dual Analog Bus modules the matrix configuration **must** be specified, this includes the prefix code together with the configuration code, see the tables for specific details.

For the expansion of an existing BRIC matrix or replacement of faulty BRIC daughter cards please contact your local sales office.

Dual Analog Bus Version (Dual 8 Wire)
x8 Configuration Options

	BRIC4 40-560A-021	BRIC8 40-560A-121
92x8 Matrix Dual Analog Bus	**-92x8-M**	**-92x8-M**
138x8 Matrix Dual Analog Bus	**-138x8-M**	**-138x8-M**
184x8 Matrix Dual Analog Bus	**-184x8-M**	**-184x8-M**
230x8 Matrix Dual Analog Bus	**-230x8-M**	**-230x8-M**
276x8 Matrix Dual Analog Bus	**-276x8-M**	**-276x8-M**
322x8 Matrix Dual Analog Bus		**-322x8-M**
368x8 Matrix Dual Analog Bus		**-368x8-M**
414x8 Matrix Dual Analog Bus		**-414x8-M**
460x8 Matrix Dual Analog Bus		**-460x8-M**
506x8 Matrix Dual Analog Bus		**-506x8-M**
552x8 Matrix Dual Analog Bus		**-552x8-M**

Support Products

eBIRST Switching System Test Tool

This product is supported by the *eBIRST* test tools which simplify the identification of failed relays, the required *eBIRST* tools are listed below. This product requires master slave testing and two sets of tools are required together with the master slave cable: **93-970-301**. For more information go to: pickeringtest.com/ebirst

Product	Test Tool	Adaptor	Termination
x4 Config	**93-002-001**	**93-002-226**	**93-016-103**
x8 Config	**93-006-001**	**93-006-222**	**93-015-103**
x16 Config	**93-006-001**	**93-006-222**	**93-015-103**

Spare Relay Kits

Kits of replacement relays are available for the majority of our PXI switching products, simplifying servicing and reducing down-time.

Product	Relay Kit
40-560A	**91-100-010 (Relay Kit 10)**

For further assistance, please contact the Pickering sales office.

Mating Connectors & Cabling

For connection accessories for the 40-560A series BRIC modules please refer to the 90-015D 68-pin micro-D or 90-016D 96-pin micro-D Connector Accessories data sheets where a complete list and documentation can be found for accessories, or refer to the Connection Solutions catalog.

Chassis Compatibility

This PXI module must be used in a suitable chassis. It is compatible with the following chassis types:

- All chassis conforming to the 3U PXI and 3U Compact PCI (cPCI) specification
- Legacy and Hybrid Peripheral slots in a 3U PXI Express (PXIe) chassis
- Pickering Interfaces LXI or LXI/USB Modular Chassis

Chassis Selection Guide



Standard PXI or hybrid PXIe Chassis from any Vendor:

- Mix our 1000+ PXI switching & simulation modules with any vendor's PXI instrumentation
- Embedded or remote Windows PC control
- Real-time Operating System Support
- High data bandwidths, especially with PXI Express
- Integrated module timing and synchronization

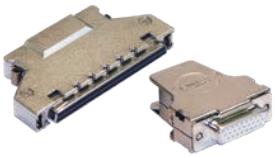


Pickering LXI or LXI/USB Modular Chassis—only accept our 1000+ PXI Switching & Simulation Modules:

- Ethernet or USB control enables remote operation
- Low-cost control from practically any controller
- LXI provides manual control via Web browsers
- Driverless software support
- Power sequencing immunity
- Ethernet provides chassis/controller voltage isolation
- Independence from Windows operating system

Connectivity Solutions

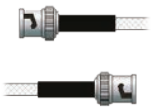
We provide a full range of supporting cable and connector solutions for all our switching products—20 connector families with 1200+ products. We offer everything from simple mating connectors to complex cables assemblies and terminal blocks. All assemblies are manufactured by Pickering and are guaranteed to mechanically and electrically mate to our modules.



Connectors & Backshells



Multiway Cable Assemblies

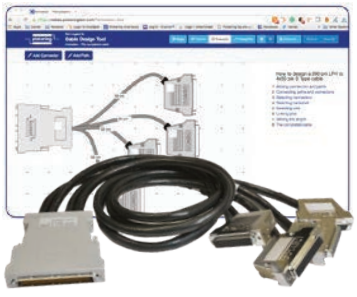


RF Cable Assemblies



Connector Blocks

We also offer customized cabling and have a free online **Cable Design Tool** that can be used to create custom cable solutions for many applications. Visit: pickeringtest.com/cdt to start your design.

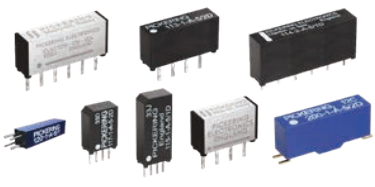


Mass Interconnect

We recommend the use of a mass interconnect solution when an Interchangeable Test Adapter (ITA) is required for a PXI or LXI based test system. Our modules are fully supported by both Virginia Panel and MacPanel.

Pickering Reed Relays

We are the only switch provider with in-house reed relay manufacturing capability via our Relay Division. These instrument grade reed relays feature ***SoftCenter™*** technology, ensuring long service life and repeatable contact performance. To learn more, please go to: pickeringrelay.com



Programming

Pickering provide kernel, IVI and VISA (NI & Keysight) drivers which are compatible with all Microsoft supported versions of Windows and popular older versions. For a list of all supporting operating systems, please see: pickeringtest.com/os

The VISA driver is also compatible with Real-Time Operating Systems such as LabVIEW RT. For other RTOS support contact Pickering. These drivers may be used with a variety of programming environments and applications including:

- **Pickering Interfaces Switch Path Manager**
- **National Instruments** products (LabVIEW, LabWindows/CVI, Switch Executive, MAX, TestStand, VeriStand, etc.)
- **Microsoft Visual Studio** products (Visual Basic, Visual C+)
- **Keysight** VEE and OpenTAP
- **Mathworks** Matlab
- **Marvin** ATEasy
- **MTQ Testsolutions** Tecap Test & Measurement Suite

Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries. We provide Soft Front Panels (SFPs) for our products for familiarity and manual control, as well as comprehensive documentation and example programs to help you develop test routines with ease.
To learn more about software drivers and development environments, please go to: pickeringtest.com/software

Signal Routing Software



Our signal routing software, Switch Path Manager, automatically selects and energizes switch paths through Pickering switching systems. Signal routing is performed by simply defining test system endpoints to be connected together, greatly accelerating Test System software development. To learn more, please go to: pickeringtest.com/spm

Diagnostic Relay Test Tools



eBIRST Switching System Test Tools are designed specifically for our PXI, PCI or LXI products, these tools simplify switching system fault-finding by quickly testing the system and graphically identifying the faulty relay.
To learn more, please go to: pickeringtest.com/ebirst

Three Year Warranty & Guaranteed Long-Term Support

All standard products manufactured by Pickering Interfaces are warranted against defective materials and workmanship for a period of three years from the date of delivery to the original purchaser. Extended warranty and service agreements are available for all our modules and systems with various levels to suit your requirements. Although we offer a 3-year warranty as standard, we also include guaranteed long-term support—with a history of supporting our products for typically 15-20 years. To learn more, please go to: pickeringtest.com/support

Available Product Resources

We have a large library of product resources including success stories, product and support videos, articles and white papers as well as application specific product brochures to assist when looking for the switching, simulation and connection solutions you need. We have also published handy reference books on Switching Technology and for the PXI and LXI standards.









To view, download or request any of our product resources, please visit: pickeringtest.com/resources

SECTION 2 - TECHNICAL DESCRIPTION

MECHANICAL DESCRIPTION

The BRIC Module comprises an alloy chassis, 2 slot (3 Daughter Cards), 4 slot (6 Daughter Cards) or 8 slot (12 Daughter Cards) width, with an integral backplane and a number of Ultra High Density Matrix Daughter Cards. The chassis is provided with cooling slots, top and bottom. The backplane provides mounting for the 50-pin connectors (into which the Matrix Daughter Cards plug) and Control logic.

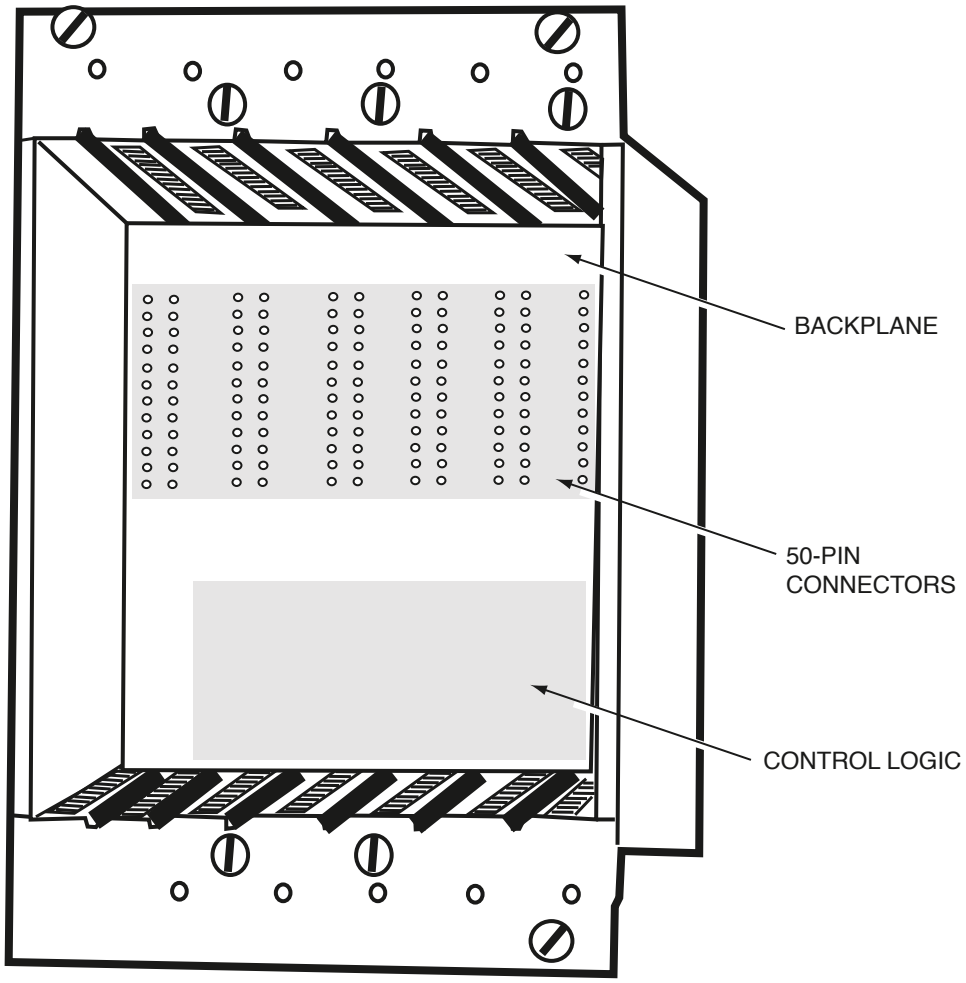


Figure 2.1 - The BRIC Chassis

Each Matrix Daughter PCB provides mounting for a Ruthenium Reed relay matrix, Ruthenium Reed isolation relays and relay drivers. The matrix daughter PCBs are fitted to two types of front panel:

- Double width - two Matrix Daughter PCBs are attached using two M2.5 x 6mm pan-head posi-drive screws for each. This front panel also provides mounting for a CPCI Ejector Handle and two male micro D-type connectors, either 96-pin or 68-pin, as shown in Figures 2.2 and 2.3.
- Single width - one Matrix Daughter PCB is attached using two M2.5 x 6mm pan-head posi-drive screws. This front panel also provides mounting for a male micro D-type connector, either 96-pin or 68-pin, as shown in Figures 2.2 and 2.3.

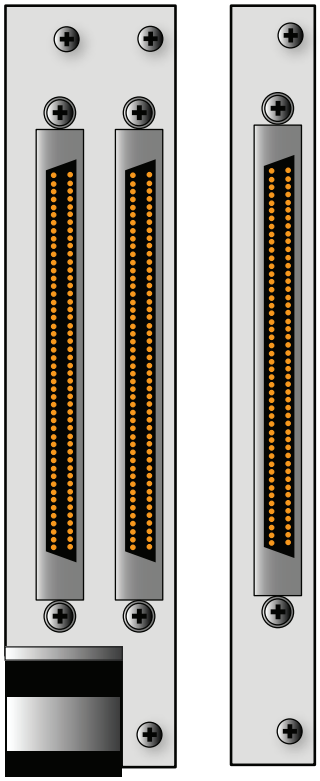


Figure 2.2 - 96-pin Micro-D Connectors used on the 92x4 Daughterboard

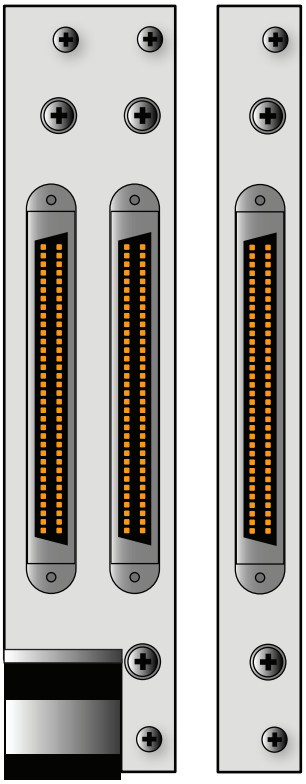


Figure 2.3 - 68-pin Micro-D Connectors used on the 46x8, 46x8-M and 23x16 Daughterboards

FUNCTIONAL DESCRIPTION - SINGLE BUS

A functional block diagram is provided in Figure 2.5. The BRIC Module is powered by a +5V and +3.3V input via Compact PCI connector J1 mounted on the Backplane. The interface to the user test equipment is via the front panel mounted micro-D connectors, mounted on the Matrix Daughter cards.

Each Matrix Daughter Card comprises a PCB populated with Relay Drivers and single pole relays configured as (X) x4, (X)x8, or (X)x16 matrices. The matrix daughter cards are connected to each other via connectors mounted on the backplane. Connectors J2 to J7 are connected to an Analog Bus, which comprises control lines, Y Bus and power. The Matrix Daughter Cards are programmed as a whole matrix. The overall size of the matrix may be increased or decreased by adding or removing daughter cards. Isolation relays fitted to each matrix daughter card ensure that the operating bandwidth of the module is not reduced by isolating unused switch paths from the selected path.

A BRIC Module is always fitted with a two slot Matrix Daughter Card in slots 1 and 2. The Matrix Daughter card in slot 1 is configured so that the Y bus is connected to the front panel connector (see Figure 2.4).

The matrix relays are energised via control signals from the relay drivers, which are addressed by the PCI bridge U1 and control logic mounted on the Backplane, to output the required signal. The PCI Bridge U1 is configured by EEPROM U2.

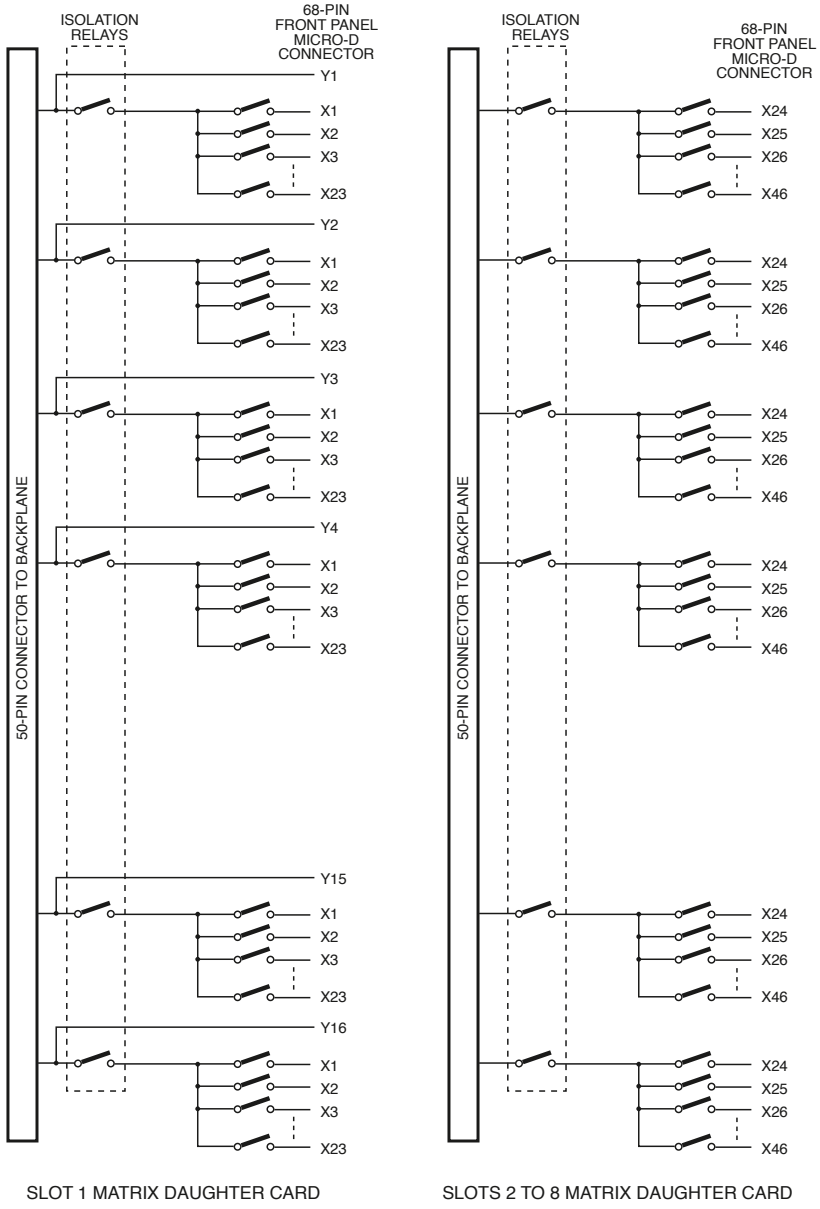
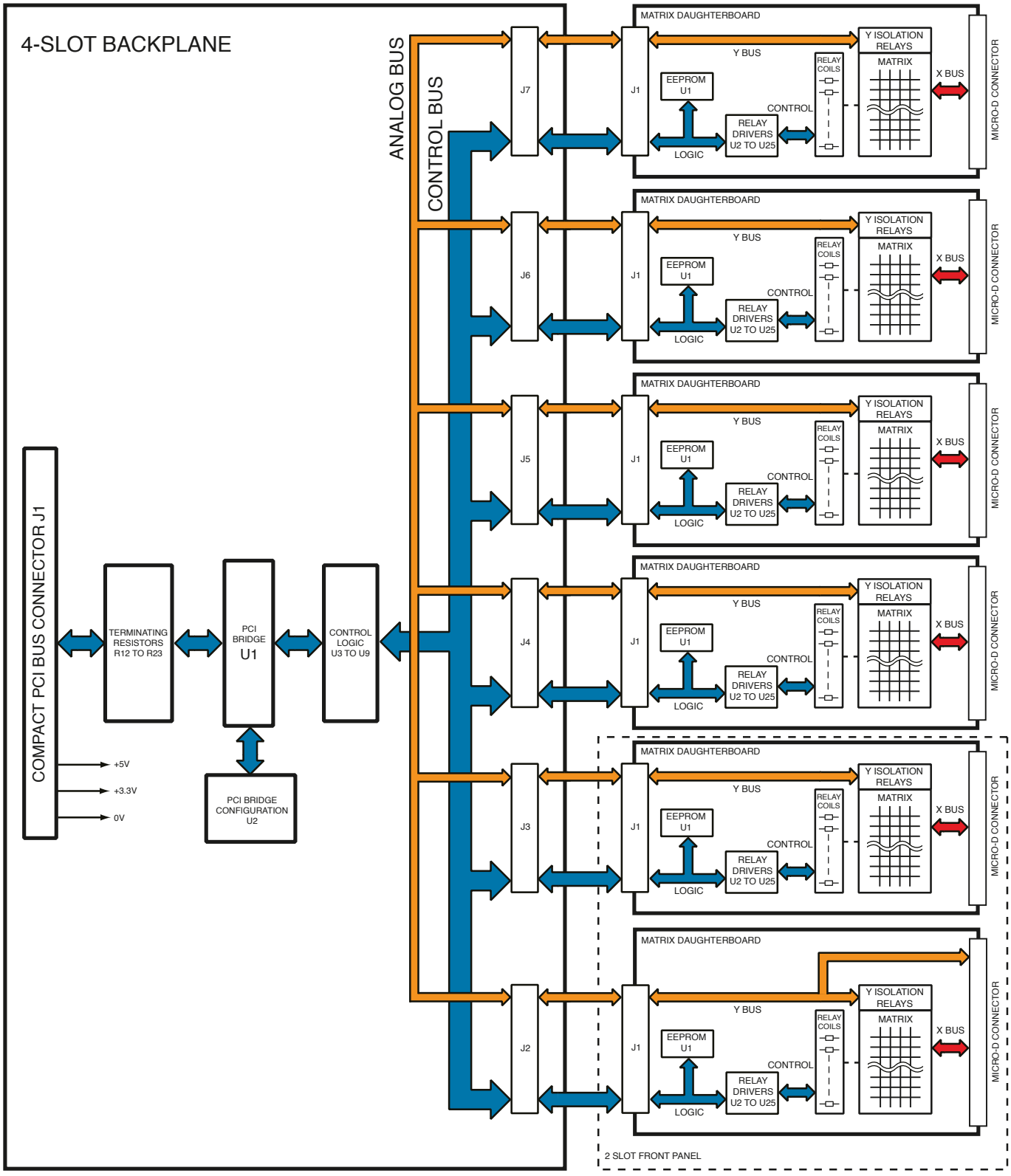


Figure 2.4 - Matrix Daughter Cards: Relay Schematic



The 8-Slot Backplane is fitted with 12 connectors J2 to J13, the 2-Slot Backplane is fitted with 3 connectors J2 to J4.

12 Matrix Daughter cards are fitted to the 8-Slot Backplane, 3 Matrix Daughter cards are fitted to the 2-Slot Backplane.

Figure 2.5 - BRIC Module: Functional Block Diagram

FUNCTIONAL DESCRIPTION - DUAL BUS (-M CONFIGURATIONS)

A functional block diagram is provided in Figure 2.7. The operation of a -M configured Bric Module is the same as for a Standard Bric Module except that the matrix daughter cards are connected to two analog buses via single pole isolation relays on the Y axis, as shown in Figure 8.6. Each Isolation switch is individually controllable, allowing each Y path to be connected to either Y Bus A, or Y Bus B, or both simultaneously.

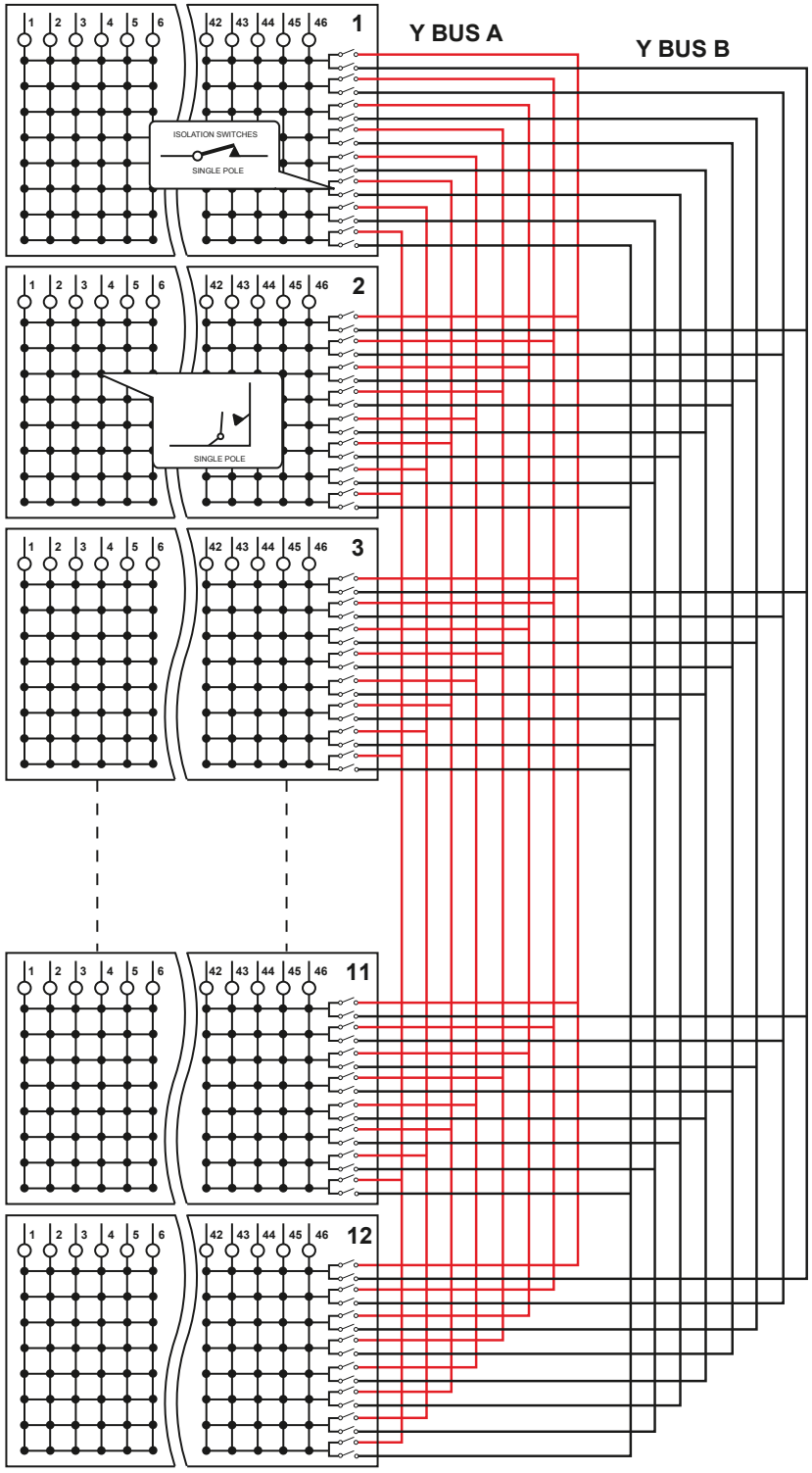
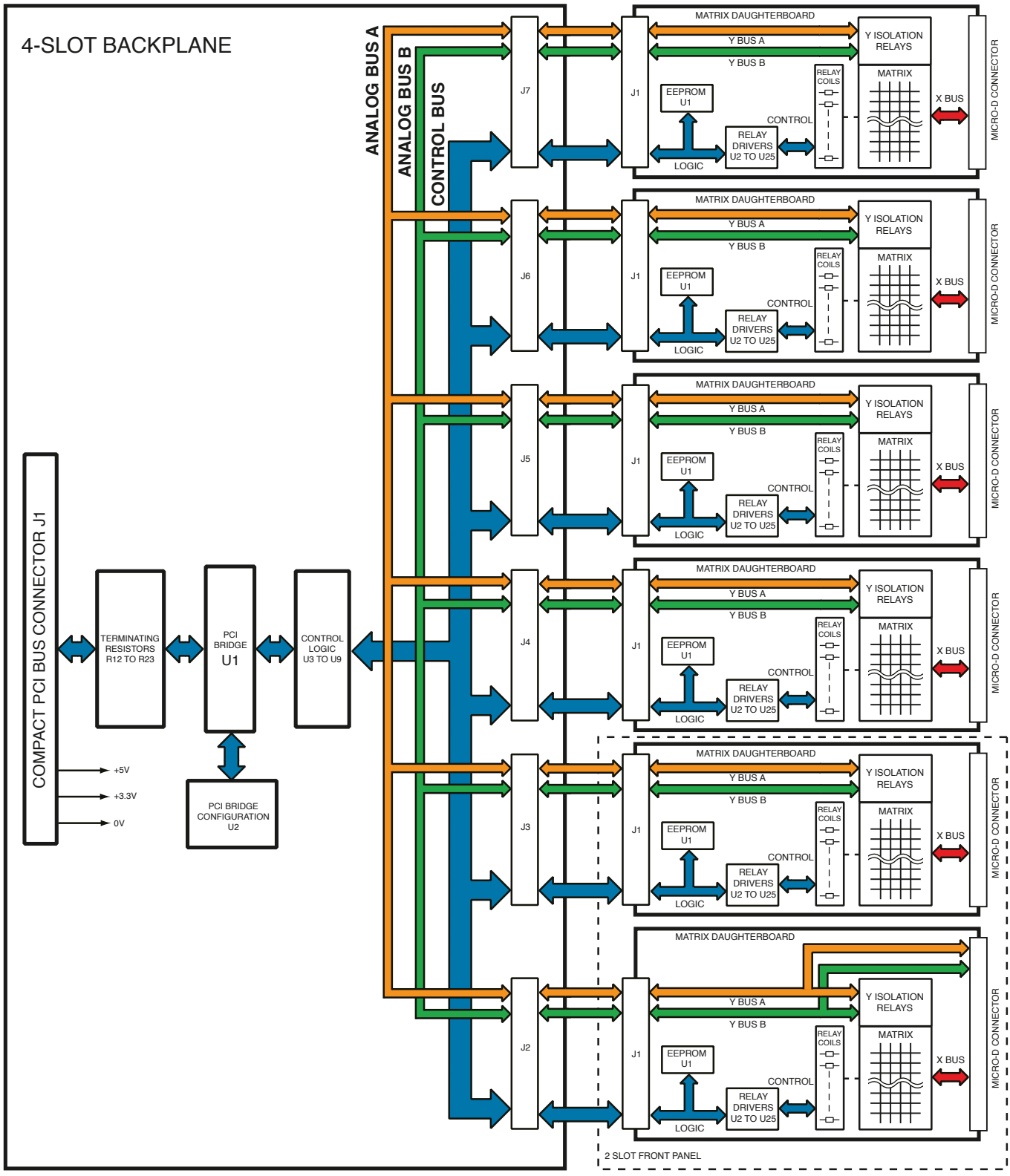


Figure 2.6 - Dual Analog Bus "Multi-Task" BRIC Module: Schematic Diagram



The 8-Slot Backplane is fitted with 12 connectors J2 to J13.

12 Matrix Daughter cards are fitted to the 8-Slot Backplane.

Figure 2.7 - Dual Analog Bus "Multi-Task" BRIC Module: Functional Block Diagram

SECTION 3 - INSTALLATION

Refer to the Warnings and Cautions at the front of this manual

Modular products require installation in a suitable PXI/LXI chassis. The module is designed for indoor use only.

PREOPERATION CHECKS (UNPACKING)

1. Check the module for transport damage and report any damage immediately to Pickering Interfaces. Do not attempt to install the product if any damage is evident.
2. Position the chassis relative to any other equipment the module(s) will connect with. Ensure the chassis is not connected to the electrical supply.
3. Ensure that the designated area for the chassis containing the module is of flat and solid construction to withstand and support the combined weight of the module(s) and chassis.

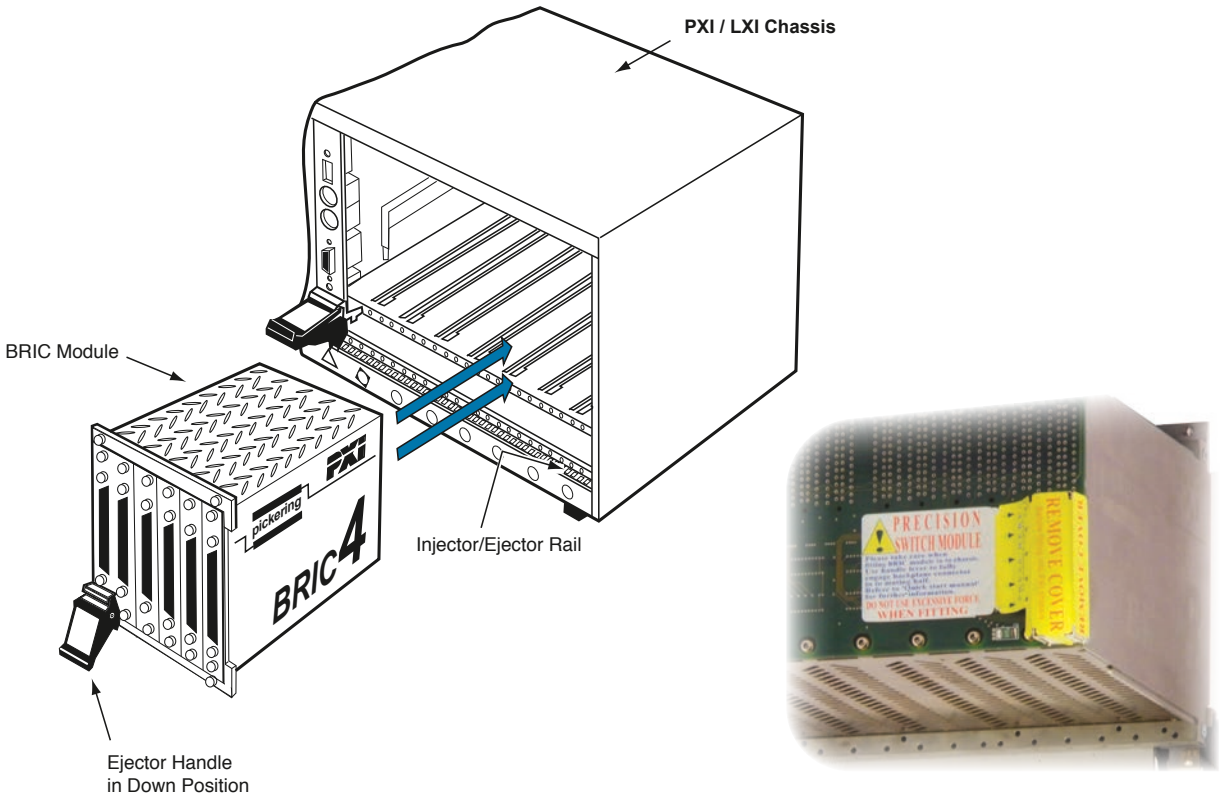


Figure 3.1 - Installing the module into a PXI / cPCI / LXI Chassis

HARDWARE INSTALLATION
ELECTRICAL CONNECTION (CHASSIS)

1. The chassis must be electrically installed in accordance with local regional electrical codes by a qualified engineer.
2. The chassis must be grounded.

Electrostatic discharge can damage the components on the module. To avoid such damage in handling the board refer to page VII.

Ensure that there is adequate ventilation.

The module should be installed in accordance with the following procedure:

1. Ensure that the system is turned OFF but still connected to mains so that it remains grounded.
2. Choose an appropriate slot in the rack.
3. Remove the blanking plate for the chosen slot.
4. Ensure that the injector/ejector handle is in its downward position. Align the module with the card guides on the top and bottom of the slot.

   Do not raise the injector/ejector handle whilst inserting the module as the module will not insert properly.
5. Hold the handle whilst slowly sliding the module into the card guides until the handle catches on the injector/ejector rail (refer to Figure 3.1).
6. Raise the injector/ejector handle until the module firmly seats into the backplane. The front panel of the module should be flush with the front panel of the chassis.
7. Secure the front panel of the module using both screws to the chassis front panel mounting rails.
8. In a system employing a remote control interface to connect an external controller to a PXI chassis or to link multiple chassis, power-up the system as follows:
   a. For a system comprising an external controller and one chassis, power up the chassis before powering up the external controller.
   b. For a system comprising more than one chassis, turn ON the last chassis in the system followed by the penultimate, etc, and finally turn ON the external controller or chassis containing the system controller.
9. For Pickering Interfaces modular LXI installation there is no requirement to use any particular power up sequence.

SOFTWARE INSTALLATION

First install the appropriate Pickering PXI switch card drivers by running the installer program Setup.exe (provided in a compressed zip file), either from the CD-ROM supplied, or by downloading the latest version from our website **pickeringtest.com** - the recommended method. Setup is accompanied by a ReadMe file containing additional installation information. A single installation covers all cards in the System 40, System 45 and System 50 ranges.

When installation completes, the installed drivers' ReadMe file is offered for display. It can also be displayed later using a shortcut on the Programs>>Pickering menu.

If you are not a LabVIEW user you should choose the "full" version, and once that has been installed run the LabVIEW Runtime Engine installer via the shortcut on the Programs>>Pickering menu. In the absence of LabVIEW the Runtime Engine is required to support the Pickering Test Panels application.

TESTING OPERATION

After installation of the hardware and Pickering PXI Driver software package start the General Soft Front Panel (GSFP) using the desktop icon or via the Start menu (***Start Menu-> Pickering Interfaces Ltd -> General Soft Front Panel***).



Figure 3.2 - General Soft Front Panel Icon

A selector panel will appear, listing all installed Pickering PCI, PXI or LXI switch cards and resistor cards. Click on the card you wish to control, and a graphical control panel is presented allowing operation of the card. Panels can be opened simultaneously for all the installed cards.

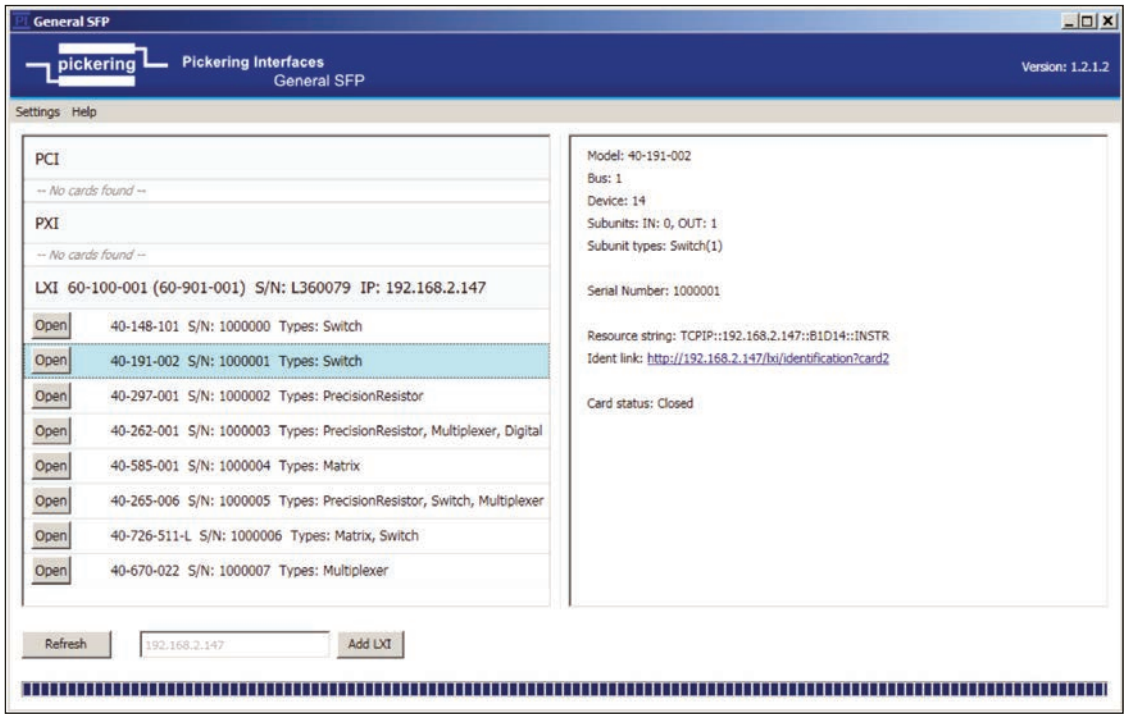


Figure 3.3 - General Soft Front Panel Selector

More details how to use the GSFP can be found in the manual, via menu ***Help\Manual***

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SECTION 4 - PROGRAMMING

PROGRAMMING OPTIONS FOR PICKERING INTERFACES PXI MODULES

For information on the installation and use of drivers and the programming of Pickering's products in various software environments, please refer to the Software User Manual.

This is available as a download from:
https://www.pickeringtest.com/support/software-drivers-and-downloads

Also, it can be accessed from the DVD supplied with the product:
<DVD_DRIVE>\downloads\Documentation\Software-Manual.pdf

MODULE ARCHITECTURE

The 40-560A is a high density single pole switching matrix constructed from 92x4, 46x8 or 23x16 sub-matrix cards linked with an analog backplane. Depending upon the mechanical size, (BRIC2, 4 or 8) between 2 and 12 sub-matrix cards can be fitted to the 40-562A BRIC module. Connections are made by operating the relays at the crosspoints between X and Y lines allowing single X-Y connections, or X-X connections using a Y line as a path. Isolation switches are used to route Y signals between sub-matrix cards via the analog backplane. When not in use, Y connections are disconnected from the backplane to preserve bandwidth and crosstalk performance. An example configuration for a 368x8 matrix using 8 sub-matrix cards is shown in the diagram below.

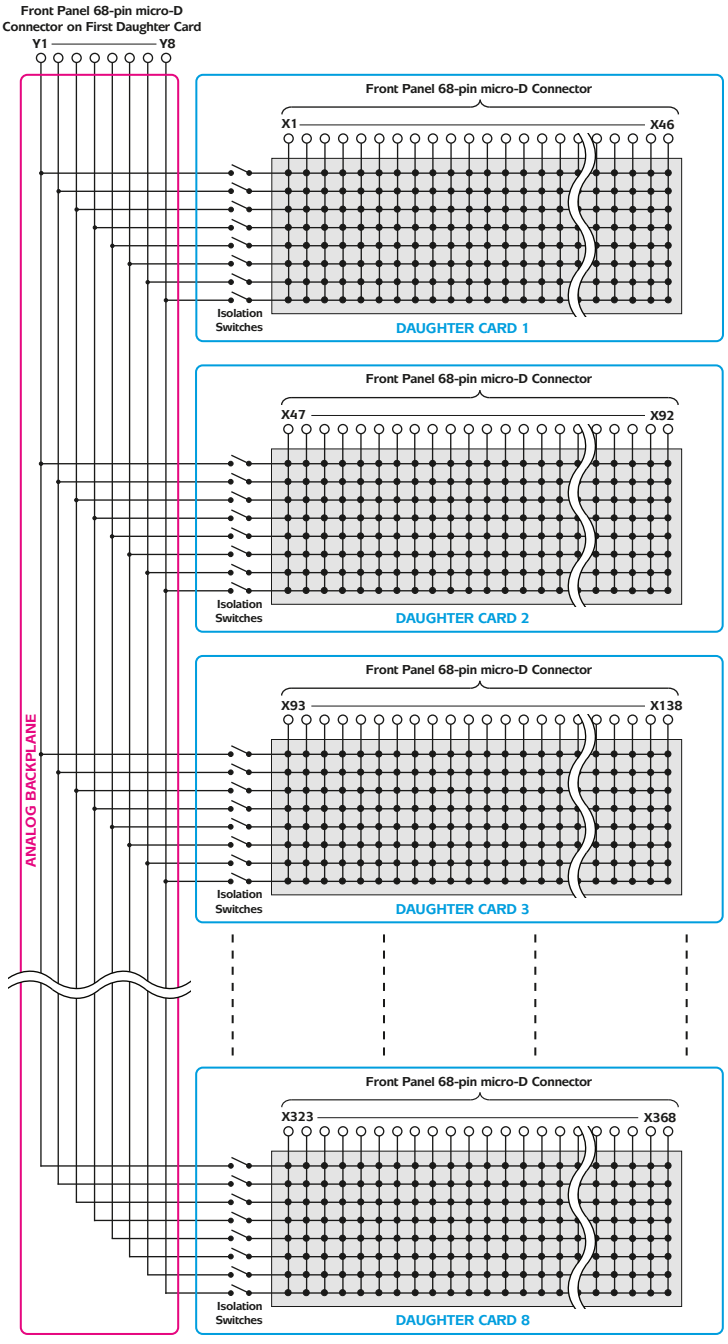


Figure 4.1 - Architecture of the 40-560A 368x8 Matrix With 8 Sub-Matrix Cards

PROGRAMMING THE MODULE

For all configurations of the 40-560A with a single analog backplane, the entire matrix is treated as a single programming sub-unit designated as Sub-Unit 1. The isolation switches are automatically operated when Y signals are routed between sub-matrix cards. The following page gives some simple examples using the provided drivers: the IVI driver, the Direct I/O driver, and the IVI compliant driver.

Using The IVI Driver, Direct I/O Driver or VISA Driver

This section provides some code fragments which show how to control the 40-560A BRIC Matrix using the IVI Driver, Direct I/O Driver or the VISA Driver.

Once the drivers are installed the manual “Sys40Prg.pdf” and driver help files which fully describes these functions can be found in the Pickering folder(s) or the Pickering entries on your Start Menu.

The card must be opened before use and closed after using the following function calls:

Direct I/O Driver - Open with `PIL_OpenCards` or `PIL_OpenSpecifiedCard` and close with `PIL_CloseCards` or `PIL_CloseSpecifiedCards` respectively.

VISA Driver - Open with `pipx40_init`, and close with, `pipx40_close`.

Setting a Matrix Crosspoint:

Using the IVI driver:

```
pi40iv_Connect(vi, “x1”, “y2”); //set crosspoint x1, y2 to on
pi40iv_Disconnect(vi, “x1”, “y2”); //set crosspoint x1, y2 to off
```

Using the Pickering Direct I/O driver:

```
DWORD SubUnit = 1;
PIL_ClearSub(CardNo, SubUnit);    //clear all crosspoints to off state
PIL_OpCrosspoint(CardNo, SubUnit, 2, 1, 1); //set crosspoint x1, y2 to on
PIL_OpCrosspoint(CardNo, SubUnit, 2, 1, 0); //set crosspoint x1, y2 to off
```

Using the VISA driver:

```
ViUInt32 SubUnit = 1;
pipx40_clearSub(vi, SubUnit); //clear all crosspoints off state
pipx40_setCrosspointState (vi, SubUnit, 2, 1, VI_ON); //set crosspoint x1, y2 on
pipx40_setCrosspointState (vi, SubUnit, 2, 1, VI_OFF); //set crosspoint x1, y2 off
```

PROGRAMMING THE 40-560A-M

The 40-560A is a matrix composed of several smaller matrices interconnected via a backplane. The -M version has dual backplanes allowing each X channel to be connected to either or both Y channels.

Each daughter-card containing one of the smaller matrices has its own set of isolation relays connecting that matrix to the dual backplanes.

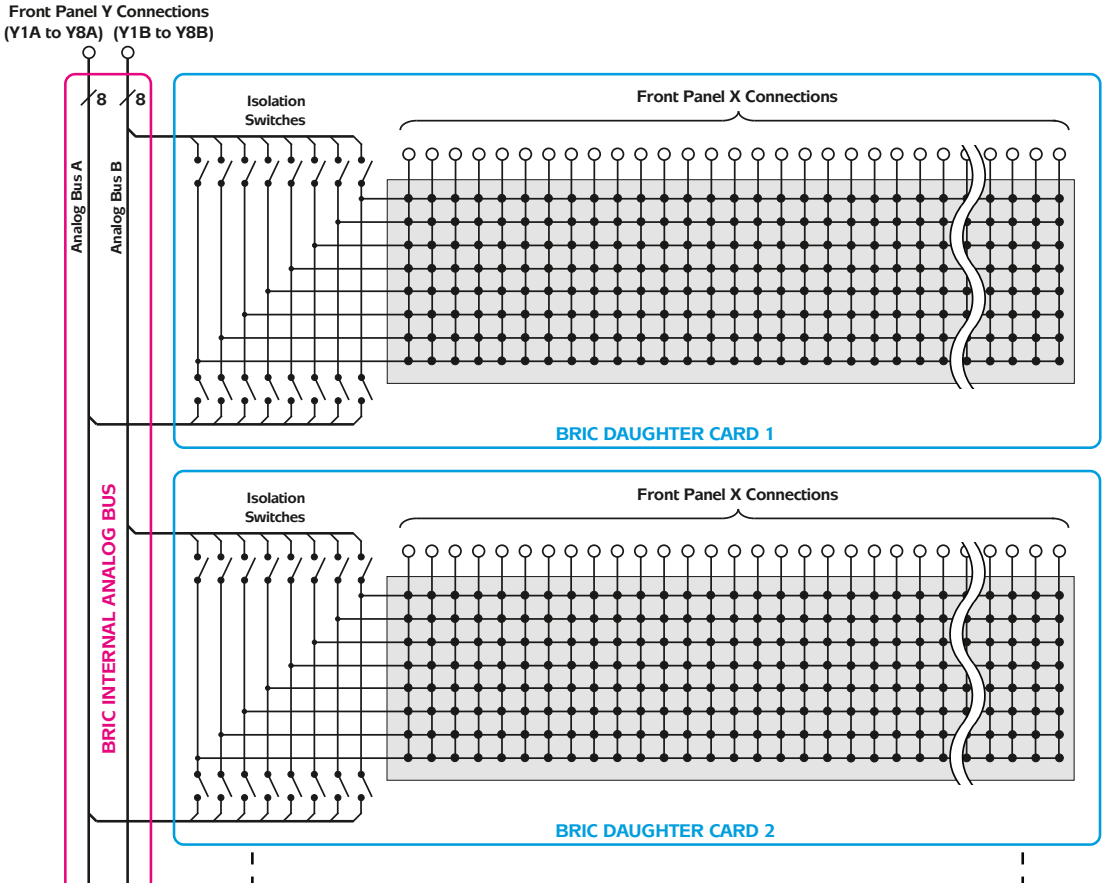


Figure 4.2 - Architecture of the 40-560A With Dual Analog Backplanes

Pilpxi and Pipx40

When programming from pilpxi or pipx40 the BRIC unit appears as a single large matrix as defined in the model data sheet, for example 184x8, plus 2 banks of isolation switches. The first bank controls access to the A backplane, the second back controls access to the B backplane.

The isolation relay banks are sized according to the number of sub-matrix cards and the size of the bus, for example the 184x8 unit has banks of 32 switches, that is 8 isolator switches for each of the 4 sub-matrix cards. The programmer must calculate which isolation relay is needed for any given daughter-card.

The most effective way to control this card is to use the crosspoint functions which allows the programmer to address the matrix in terms of a row and column address.

```
PIL_OpCrosspoint(card, sub-unit, row, column, state);
pipx40_setCrosspointState(vi, sub-unit, row, column, state);
```

There are also functions to allow setting of an entire sub-unit in a single operation, the user is referred to detailed documentation for the drivers for further information.

It must be noted that in these drivers the isolation relays are NOT automated, the programmer must control the appropriate isolation relay to connect the required matrix segment to one or both backplanes. ºThe isolation relays appear as banks of simple switches, for example the 40-560A-021-184x8-M contains 4 daughter-cards each with a 46x8 matrix, so the isolation relays appear as 2 banks of 32 switches, one bank for the YA backplane and one for the YB backplane. Each bank contains 8 switches for each daughter-card, hence 32 switches in this case. The first 8 isolate the first daughter-card and so on.

```
PIL_OpBit(card, sub-unit, switch, state);
pipx40_setChannelState(vi, sub-unit, channel, state);
```

So, for example, to connect X47 to YA1, the programming sequence will be:

```
PIL_OpCrosspoint(card, 1, 47, 1, 1);    // Sub-unit 1, set 47,1 to state 1
PIL_OpBit(card, 2, 9, 1);               // Sub-unit 2, set bit 9 to state 1
```

Notes:

Sub-unit 1 is normally the matrix, sub-unit 2 the YA isolators and sub-unit 3 the YB isolator, however the user is advised to verify this for any particular card.

The 9th bit on the 2nd sub-unit is operated since x47 is on the second daughter-card and so the isolation relay is in the 2nd group of 8 bits, the 2nd sub-unit controls the YA relays.

If the requirement was to connect to YB1, then the second command would use sub-unit 3 instead of sub-unit 2.

pi40iv

These -M BRICs were not capable of being controlled by releases of the Ivi driver prior to release 2.60. In release 2.60 of the Pickering Ivi driver, pi40iv, for ease of use, the Ivi driver automates the isolation switches, making the card appear as a matrix with two sets of Y channels. The Ivi driver assigns names to each channel or node, to program the BRIC from the Ivi driver it is necessary to know the name of these channels.

In normal use, the card is initialised with the InitWithOptions function using the DriverSetup string:

```
DriverSetup=Model:40-560-021-184x8-M
```

In this case the Bric the x channels are labeled as X1-X184, and the Y channels are labeled as YA1-YA8 and YB1-YB8.

The programmer simply calls the Connect function between the required X and Y channels, eg:

```
pi40iv_Connect(vi, “X47”, “YA1”);
```

The appropriate isolation relay will be actuated to make the requested connection.

‘Splitting’ the BRIC

In the case of the 40-560A-184x8-M, three alternate configuratons of the card have been created which effectivelly ‘split’ the matrix into two independent matrices, in these cases the channel names for the 2 matrices are coded as XA, YA, and XB, YB. The BRIC may only be split at one of the boundaries defined by the daughter cards, so at 46, 92 or 138 along the X-axis. In this case no connection is possible across the two matrices, this means an attempt to connect an XA channel with a YB channel will be rejected.

To use this facility, 3 special cases of the card have been added to the pi40iv.ini file to define the 3 possible points at which the BRIC may be split, in the InitWithOptions function, modify the DriverSetup definition as follows;

```
DriverSetup=Model:40-560-021-184x8-M-S1
DriverSetup=Model:40-560-021-184x8-M-S2
DriverSetup=Model:40-560-021-184x8-M-S3
```

These split the Bric at 46, 92 and 138 respectively.

Similar divisions are possible with other 40-560-M cards, however these have not been added to the ini file.

In use the programmer calls for connections on either matrix, eg:

```
pi40iv_Connect(vi, “XA33”, “YA2”);
pi40iv_Connect(vi, “XB33”, “YB2”);
```

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SECTION 5 - CONNECTOR INFORMATION

The Diagrams on the following pages show the connector pinouts for fully populated BRIC modules. Use the table below to find the slot numbers used in the connector diagrams for a particular 40-560A BRIC model number.

MODEL NUMBER / CONNECTOR DIAGRAM LOOK-UP TABLE

	MODEL NUMBER	CONNECTOR DIAGRAM	SLOTS USED
X4 CONFIGURATIONS	40-560A-021-184X4	Figure 5.1	1 and 2
	40-560A-021-276X4	Figure 5.1	1 to 3
	40-560A-021-368X4	Figure 5.1	1 to 4
	40-560A-021-460X4	Figure 5.1	1 to 5
	40-560A-021-552X4	Figure 5.1	1 to 6
	40-560A-121-184X4	Figure 5.1	1 and 2
	40-560A-121-276X4	Figure 5.1	1 to 3
	40-560A-121-368X4	Figure 5.1	1 to 4
	40-560A-121-460X4	Figure 5.1	1 to 5
	40-560A-121-552X4	Figure 5.1	1 to 6
	40-560A-121-644X4	Figure 5.1	1 to 7
	40-560A-121-736X4	Figure 5.1	1 to 8
	40-560A-121-828X4	Figure 5.1	1 to 9
	40-560A-121-920X4	Figure 5.1	1 to 10
	40-560A-121-1012X4	Figure 5.1	1 to 11
	40-560A-121-1104X4	Figure 5.1	1 to 12
	40-560A-221-184X4	Figure 5.1	1 and 2
	40-560A-221-276X4	Figure 5.1	1 to 3
X8 CONFIGURATIONS	40-560A-021-92X8	Figure 5.2	1 and 2
	40-560A-021-138X8	Figure 5.2	1 to 3
	40-560A-021-184X8	Figure 5.2	1 to 4
	40-560A-021-230X8	Figure 5.2	1 to 5
	40-560A-021-276X8	Figure 5.2	1 to 6
	40-560A-121-92X8	Figure 5.2	1 and 2
	40-560A-121-138X8	Figure 5.2	1 to 3
	40-560A-121-184X8	Figure 5.2	1 to 4
	40-560A-121-230X8	Figure 5.2	1 to 5
	40-560A-121-276X8	Figure 5.2	1 to 6
	40-560A-121-322X8	Figure 5.2	1 to 7
	40-560A-121-368X8	Figure 5.2	1 to 8
	40-560A-121-414X8	Figure 5.2	1 to 9
	40-560A-121-460X8	Figure 5.2	1 to 10
	40-560A-121-506X8	Figure 5.2	1 to 11
	40-560A-121-552X8	Figure 5.2	1 to 12
	40-560A-221-92X8	Figure 5.2	1 and 2
	40-560A-221-138X8	Figure 5.2	1 to 3

	MODEL NUMBER	CONNECTOR DIAGRAM	SLOTS USED
X16 CONFIGURATIONS	40-560A-021-46X16	Figure 5.3	1 and 2
	40-560A-021-69X16	Figure 5.3	1 to 3
	40-560A-021-92X16	Figure 5.3	1 to 4
	40-560A-021-115X16	Figure 5.3	1 to 5
	40-560A-021-138X16	Figure 5.3	1 to 6
	40-560A-121-46X16	Figure 5.3	1 and 2
	40-560A-121-69X16	Figure 5.3	1 to 3
	40-560A-121-92X16	Figure 5.3	1 to 4
	40-560A-121-115X16	Figure 5.3	1 to 5
	40-560A-121-138X16	Figure 5.3	1 to 6
	40-560A-121-161X16	Figure 5.3	1 to 7
	40-560A-121-184X16	Figure 5.3	1 to 8
	40-560A-121-207X16	Figure 5.3	1 to 9
	40-560A-121-230X16	Figure 5.3	1 to 10
	40-560A-121-253X16	Figure 5.3	1 to 11
	40-560A-121-276X16	Figure 5.3	1 to 12
	40-560A-221-46X16	Figure 5.3	1 and 2
	40-560A-221-69X16	Figure 5.3	1 to 3
DUAL ANALOG BUS CONFIGURATIONS	40-560A-021-92X8-M	Figure 5.4	1 and 2
	40-560A-021-138X8-M	Figure 5.4	1 to 3
	40-560A-021-184X8-M	Figure 5.4	1 to 4
	40-560A-021-230X8-M	Figure 5.4	1 to 5
	40-560A-021-276X8-M	Figure 5.4	1 to 6
	40-560A-121-92X8-M	Figure 5.4	1 and 2
	40-560A-121-138X8-M	Figure 5.4	1 to 3
	40-560A-121-184X8-M	Figure 5.4	1 to 4
	40-560A-121-230X8-M	Figure 5.4	1 to 5
	40-560A-121-276X8-M	Figure 5.4	1 to 6
	40-560A-121-322X8-M	Figure 5.4	1 to 7
	40-560A-121-368X8-M	Figure 5.4	1 to 8
	40-560A-121-414X8-M	Figure 5.4	1 to 9
	40-560A-121-460X8-M	Figure 5.4	1 to 10
	40-560A-121-506X8-M	Figure 5.4	1 to 11
	40-560A-121-552X8-M	Figure 5.4	1 to 12

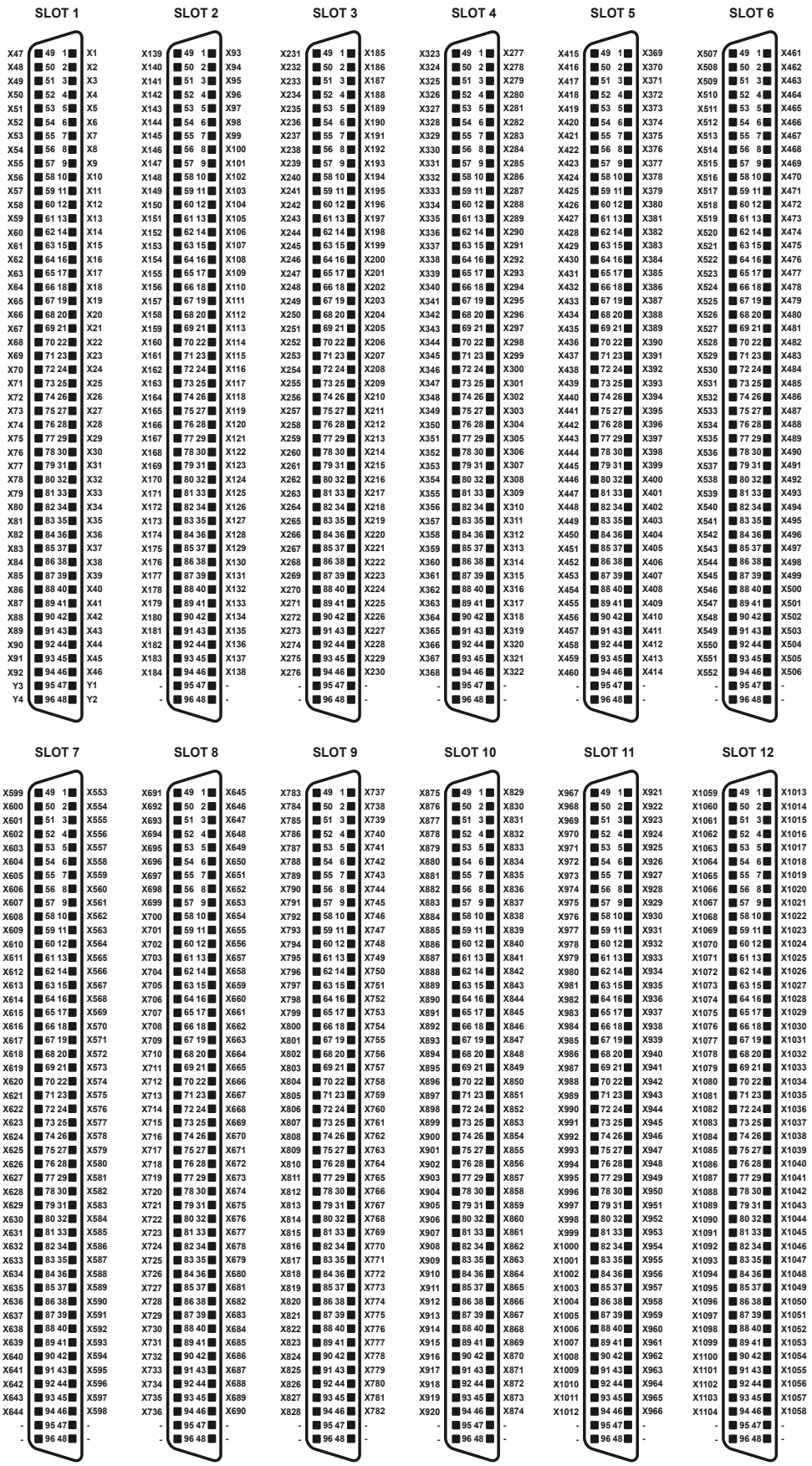


Figure 5.1 - 2 Slot BRIC Module 40-560A-221-276x4 (Slots 1 to 3), 4 Slot BRIC Module 40-560A-021-552x4 (Slots 1 to 6) & 8 Slot BRIC Module 40-560A-121-1104x4 (Slots 1 to 12): Pinouts

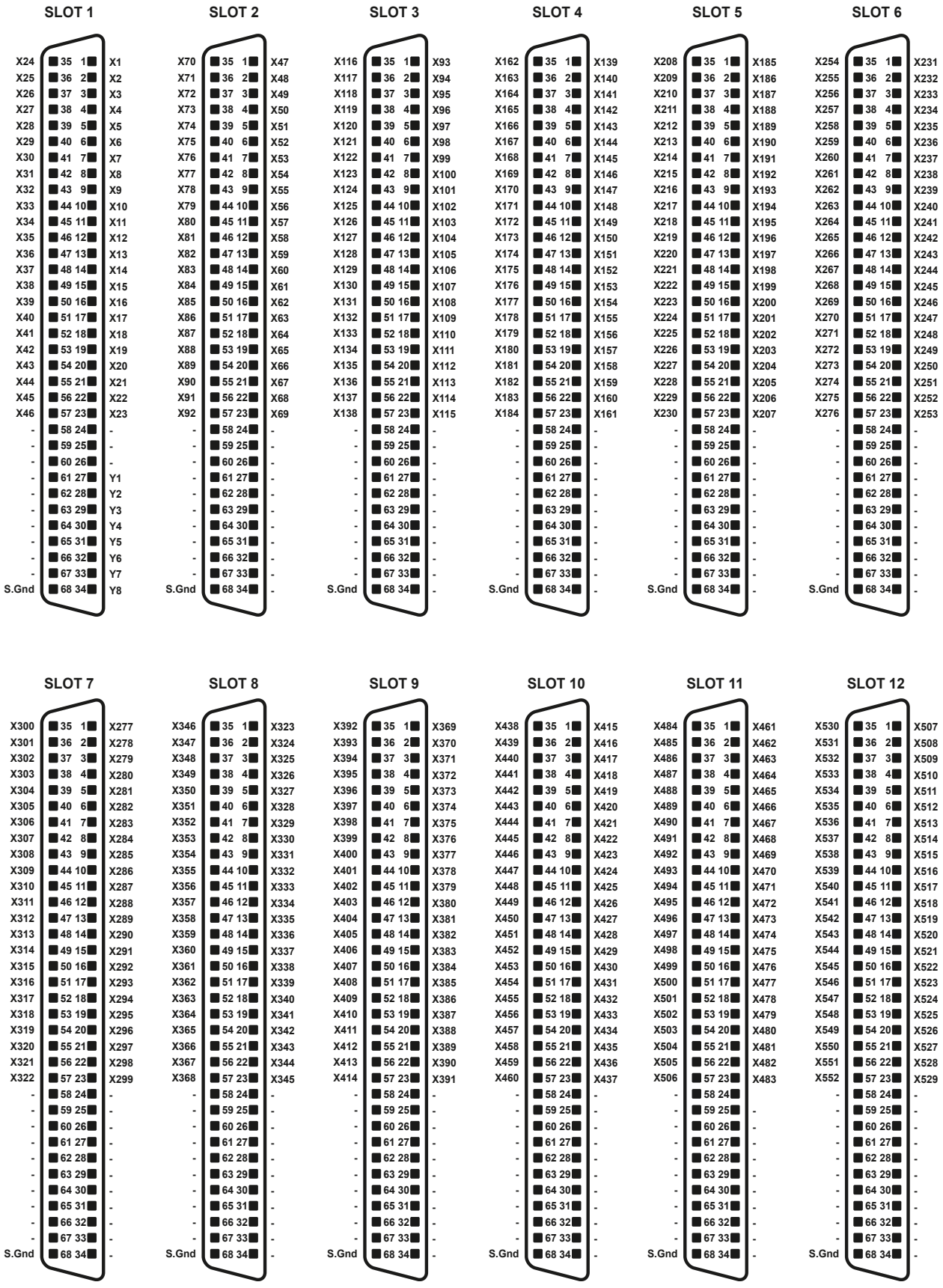


Figure 5.2 - 2 Slot BRIC Module 40-560A-221-138x8 (Slots 1 to 3), 4 Slot BRIC Module 40-560A-021-276x8 (Slots 1 to 6), 8 Slot BRIC Module 40-560A-121-276x8 (Slots 1 to 6, Slots 7 to 12 not used) & 8 Slot BRIC Module 40-560A-121-552x8 (Slots 1 to 12): Pinouts

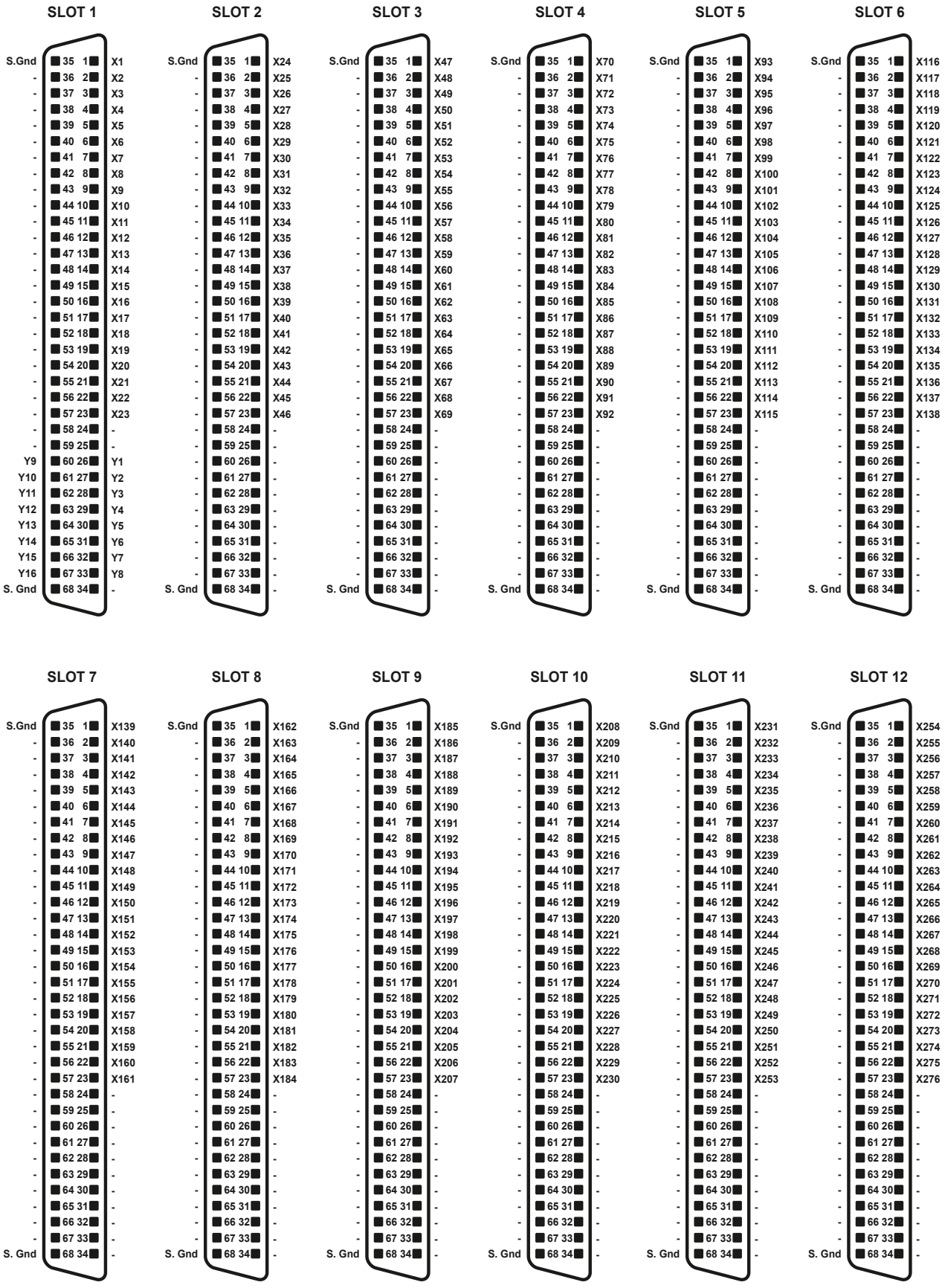
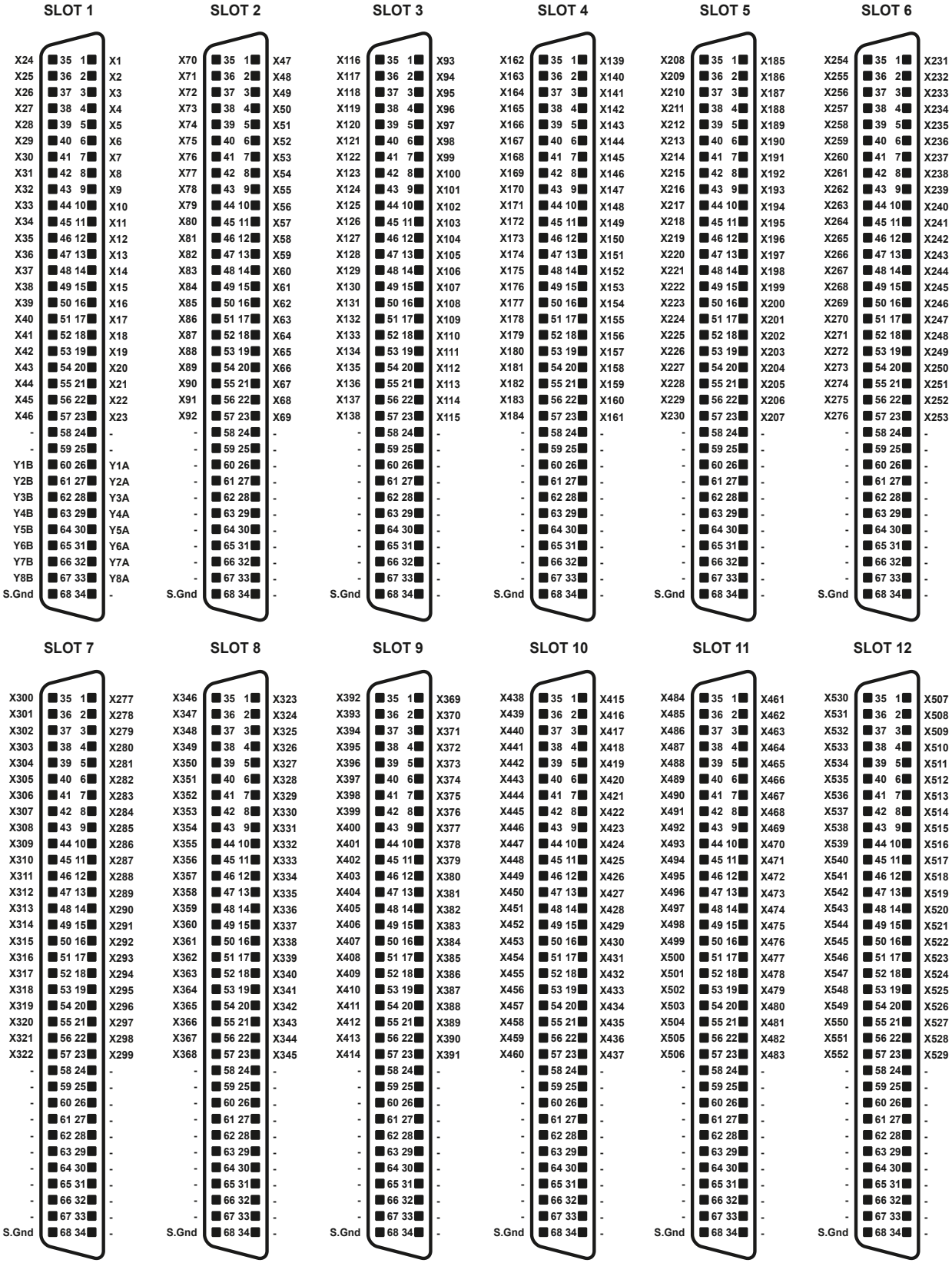


Figure 5.3 - 2 Slot BRIC Module 40-560A-221-69x16 (Slots 1 to 3), 4 Slot BRIC Module 40-560A-021-138x16 (Slots 1 to 6) & 8 Slot BRIC Module 40-560A-121-276x16 (Slots 1 to 12): Pinouts



X inputs may be switched to either Y Bus, or both Y Busses

Figure 5.4 - 4 Slot BRIC Module 40-560A-021-276x8-M (Slots 1 to 6) & 8 Slot BRIC Module 40-560A-121-552x8-M (Slots 1 to 12): Pinouts

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SECTION 6 - TROUBLE SHOOTING

Refer to the Warnings and Cautions at the front of this manual 

INSTALLATION PROBLEMS

The Plug & Play functionality of Pickering switching products generally ensures trouble-free installation.

If you do experience any installation problems you should first ensure that all modules are properly seated in their slots. Improperly mated products may go undetected by the operating system, or may be detected as a product of an unknown type. They can also cause the computer to freeze at various stages in the boot sequence.

If your system employs a remote control interface you should check the integrity of all remote control interface links. When the system is powered up, and during Windows start-up, you should expect to see periodic activity on the remote control interface RX/TX (yellow) indicators, clearing to leave only the PWR/LNK (green) LEDs illuminated. The RX/TX indicators should show activity when you attempt to access a card.

DIAGNOSTIC UTILITY

The Pickering Diagnostic Utility (accessible through the Programs>>Pickering>>PXI Utilities menu) generates a diagnostic report of the system's PCI configuration, highlighting any potential configuration problems. Specific details of all installed Pickering switch cards are included. All the installed Pickering switch cards should be listed in the "Pilpxi information" section - if one or more cards is missing it may be possible to determine the reason by referring to the PCI configuration dump contained in the report, but interpretation of this information is far from straightforward, and the best course is to contact Pickering support: support@pickeringtest.com, if possible including a copy of the diagnostic report.

In the "VISA information" section, if VISA is not installed its absence will be reported. This does not affect operation using the Direct I/O driver, and is not a problem unless you wish to use VISA. VISA is a component of National Instruments LabWindows/CVI and LabVIEW, or is available as a standalone environment.

If VISA is present and is of a sufficiently recent version, the section "Pipx40 information" should present a listing similar to "Pilpxi information".

Please note that the Diagnostic Utility cannot access cards if they are currently opened by some other application, such as the Test Panels or Terminal Monitor.

SWITCHING SYSTEM TEST TOOLS

Please refer to Section 7 - Maintenance Information.

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SECTION 7 - MAINTENANCE INFORMATION

Refer to the Warnings and Cautions at the front of this manual 

PERIODIC MAINTENANCE

This product and its corresponding chassis do not require any periodic maintenance.

GENERAL CLEANING

- Isolate the electrical power from the chassis and ensure that no user I/O signals are being applied.
- Wipe the product & chassis surfaces with a clean dry anti-static cloth only.

SOFTWARE UPDATE

For PXI modules operating in a PXI chassis, no module software updates are required. For the latest version of the driver please refer to our web site **pickeringtest.com** where links to our Software Download page will provide the latest version of the driver software for the various programming environments encountered.

For PXI modules which are supported in one of Pickering Interfaces' Modular LXI Chassis (such as the 60-102B and 60-103B) no module software update is required. If the module was introduced after the LXI chassis was manufactured the module may not be recognized, in this case the chassis firmware may need upgrading. This is a simple process which is described in the manual for the Modular LXI Chassis.

SWITCHING SYSTEM TEST TOOLS

USING *BIRST*™ (BUILT-IN RELAY SELF TEST)

The Pickering Interfaces BIRST (Built-In Relay Self Test) Tool provides a simple means of testing selected Pickering Interfaces switching products, including this model. The tool can be used to find relay faults or to provide confirmation that a product is operating correctly, either as part of the regular system calibration or because a system fault is suspected and the switch system needs to be eliminated from the fault finding procedure.

BIRST SOFTWARE

The application program for BIRST is supplied with the support disc included when the product is shipped. Alternatively the program can be downloaded from Pickering Interfaces web site:
www.pickeringtest.info/downloads/BIRST/

Warning: The BIRST facility requires that the UUT is disconnected from the products front panel connector(s). Failure to disconnect could result in either misleading results or damage to the BIRST hardware within the product.

Please refer to the documentation accompanying the application for detailed usage / operation details.

For further general information on BIRST click here.

USING *eBIRST*

We recommend the use of ***eBIRST*** to provide a check of the correct operation of relays and to identify the location of any faulty relay. For more information on ***eBIRST*** click here.

FUSE REPLACEMENT

The backplane of this product is fitted with a fuse to protect the daughter cards. In the event of suspected fuse failure please contact support (http://www.pickeringtest.com/support) quoting the module part number.

RELAY LOOK-UP TABLES

The following pages provide a cross reference between the signal paths of the product and the physical relays on the PCB. The tables can be used in the fault finding process and should be used in conjunction with the corresponding PCB layout diagrams to identify the position of faulty relays. Users of ***eBIRST*** switching system test tools do not need to use this information to locate faulty relays.

RELAY LOOK-UP TABLES

PCB outlines that show the physical relay location on the PCB are provided in Figures 7.1, 7.2, 7.3 and 7.4.

Note: Because of the high density of the BRIC daughter cards not all cards have spare relays fitted to them. Users can acquire the replacement relays either from the OEM or from Pickering Interfaces.

Replacement of relays should only be carried out by qualified personnel using the correct equipment.

If qualified personnel are not available, or the location of a defective relay cannot be positively determined it is recommended that the module is returned to Pickering Interfaces or a replacement daughter card is ordered.

As an aid to fault finding, relay look-up tables are provided for Isolation and Crosspoint relays as follows:.

- Table 7.1 - 92x4 Daughterboard Isolation Relays
- Table 7.2 - 92x4 Daughterboard Crosspoint Relays
- Table 7.3 - 46x8 Daughterboard Isolation Relays
- Table 7.4 - 46x8-M Daughterboard Isolation Relays
- Table 7.5 - 46x8 and 46 x 8-M Daughterboard Crosspoint Relays
- Table 7.6 - 23x16 Daughterboard Isolation Relays
- Table 7.7 - 23x16 Daughterboard Crosspoint Relays

TABLE 7.1 - 92x4 Daughterboard Isolation Relays Look-Up Table

Matrix Position	Daughter Board	Relay No.
Y1 isolation	1	369
Y2 isolation	1	370
Y3 isolation	1	371
Y4 isolation	1	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	4	369
Y2 isolation	4	370
Y3 isolation	4	371
Y4 isolation	4	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	7	369
Y2 isolation	7	370
Y3 isolation	7	371
Y4 isolation	7	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	10	369
Y2 isolation	10	370
Y3 isolation	10	371
Y4 isolation	10	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	2	369
Y2 isolation	2	370
Y3 isolation	2	371
Y4 isolation	2	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	5	369
Y2 isolation	5	370
Y3 isolation	5	371
Y4 isolation	5	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	8	369
Y2 isolation	8	370
Y3 isolation	8	371
Y4 isolation	8	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	11	369
Y2 isolation	11	370
Y3 isolation	11	371
Y4 isolation	11	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	3	369
Y2 isolation	3	370
Y3 isolation	3	371
Y4 isolation	3	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	6	369
Y2 isolation	6	370
Y3 isolation	6	371
Y4 isolation	6	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	9	369
Y2 isolation	9	370
Y3 isolation	9	371
Y4 isolation	9	372

Matrix Position	Daughter Board	Relay No.
Y1 isolation	12	369
Y2 isolation	12	370
Y3 isolation	12	371
Y4 isolation	12	372

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table

Matrix Position		Daughter Board	Relay No.
X	Y		
1	1	1	1
1	2	1	2
1	3	1	3
1	4	1	4
2	1	1	17
2	2	1	18
2	3	1	19
2	4	1	20
3	1	1	33
3	2	1	34
3	3	1	35
3	4	1	36
4	1	1	49
4	2	1	50
4	3	1	51
4	4	1	52
5	1	1	65
5	2	1	66
5	3	1	67
5	4	1	68
6	1	1	81
6	2	1	82
6	3	1	83
6	4	1	84
7	1	1	97
7	2	1	98
7	3	1	99
7	4	1	100
8	1	1	113
8	2	1	114
8	3	1	115
8	4	1	116
9	1	1	129
9	2	1	130
9	3	1	131
9	4	1	132
10	1	1	145
10	2	1	146
10	3	1	147
10	4	1	148
11	1	1	161
11	2	1	162
11	3	1	163
11	4	1	164
12	1	1	177
12	2	1	178
12	3	1	179
12	4	1	180

Matrix Position		Daughter Board	Relay No.
X	Y		
13	1	1	193
13	2	1	194
13	3	1	195
13	4	1	196
14	1	1	209
14	2	1	210
14	3	1	211
14	4	1	212
15	1	1	225
15	2	1	226
15	3	1	227
15	4	1	228
16	1	1	241
16	2	1	242
16	3	1	243
16	4	1	244
17	1	1	257
17	2	1	258
17	3	1	259
17	4	1	260
18	1	1	273
18	2	1	274
18	3	1	275
18	4	1	276
19	1	1	289
19	2	1	290
19	3	1	291
19	4	1	292
20	1	1	305
20	2	1	306
20	3	1	307
20	4	1	308
21	1	1	321
21	2	1	322
21	3	1	323
21	4	1	324
22	1	1	337
22	2	1	338
22	3	1	339
22	4	1	340
23	1	1	353
23	2	1	354
23	3	1	355
23	4	1	356
24	1	1	5
24	2	1	6
24	3	1	7
24	4	1	8

Matrix Position		Daughter Board	Relay No.
X	Y		
25	1	1	21
25	2	1	22
25	3	1	23
25	4	1	24
26	1	1	37
26	2	1	38
26	3	1	39
26	4	1	40
27	1	1	53
27	2	1	54
27	3	1	55
27	4	1	56
28	1	1	69
28	2	1	70
28	3	1	71
28	4	1	72
29	1	1	85
29	2	1	86
29	3	1	87
29	4	1	88
30	1	1	101
30	2	1	102
30	3	1	103
30	4	1	104
31	1	1	117
31	2	1	118
31	3	1	119
31	4	1	120
32	1	1	133
32	2	1	134
32	3	1	135
32	4	1	136
33	1	1	149
33	2	1	150
33	3	1	151
33	4	1	152
34	1	1	165
34	2	1	166
34	3	1	167
34	4	1	168
35	1	1	181
35	2	1	182
35	3	1	183
35	4	1	184
36	1	1	197
36	2	1	198
36	3	1	199
36	4	1	200

Matrix Position		Daughter Board	Relay No.
X	Y		
37	1	1	213
37	2	1	214
37	3	1	215
37	4	1	216
38	1	1	229
38	2	1	230
38	3	1	231
38	4	1	232
39	1	1	245
39	2	1	246
39	3	1	247
39	4	1	248
40	1	1	261
40	2	1	262
40	3	1	263
40	4	1	264
41	1	1	277
41	2	1	278
41	3	1	279
41	4	1	280
42	1	1	293
42	2	1	294
42	3	1	295
42	4	1	296
43	1	1	309
43	2	1	310
43	3	1	311
43	4	1	312
44	1	1	325
44	2	1	326
44	3	1	327
44	4	1	328
45	1	1	341
45	2	1	342
45	3	1	343
45	4	1	344
46	1	1	357
46	2	1	358
46	3	1	359
46	4	1	360
47	1	1	9
47	2	1	10
47	3	1	11
47	4	1	12
48	1	1	25
48	2	1	26
48	3	1	27
48	4	1	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
49	1	1	41
49	2	1	42
49	3	1	43
49	4	1	44
50	1	1	57
50	2	1	58
50	3	1	59
50	4	1	60
51	1	1	73
51	2	1	74
51	3	1	75
51	4	1	76
52	1	1	89
52	2	1	90
52	3	1	91
52	4	1	92
53	1	1	105
53	2	1	106
53	3	1	107
53	4	1	108
54	1	1	121
54	2	1	122
54	3	1	123
54	4	1	124
55	1	1	137
55	2	1	138
55	3	1	139
55	4	1	140
56	1	1	153
56	2	1	154
56	3	1	155
56	4	1	156
57	1	1	169
57	2	1	170
57	3	1	171
57	4	1	172
58	1	1	185
58	2	1	186
58	3	1	187
58	4	1	188
59	1	1	201
59	2	1	202
59	3	1	203
59	4	1	204
60	1	1	217
60	2	1	218
60	3	1	219
60	4	1	220

Matrix Position		Daughter Board	Relay No.
X	Y		
61	1	1	233
61	2	1	234
61	3	1	235
61	4	1	236
62	1	1	249
62	2	1	250
62	3	1	251
62	4	1	252
63	1	1	265
63	2	1	266
63	3	1	267
63	4	1	268
64	1	1	281
64	2	1	282
64	3	1	283
64	4	1	284
65	1	1	297
65	2	1	298
65	3	1	299
65	4	1	300
66	1	1	313
66	2	1	314
66	3	1	315
66	4	1	316
67	1	1	329
67	2	1	330
67	3	1	331
67	4	1	332
68	1	1	345
68	2	1	346
68	3	1	347
68	4	1	348
69	1	1	361
69	2	1	362
69	3	1	363
69	4	1	364
70	1	1	13
70	2	1	14
70	3	1	15
70	4	1	16
71	1	1	29
71	2	1	30
71	3	1	31
71	4	1	32
72	1	1	45
72	2	1	46
72	3	1	47
72	4	1	48

Matrix Position		Daughter Board	Relay No.
X	Y		
73	1	1	61
73	2	1	62
73	3	1	63
73	4	1	64
74	1	1	77
74	2	1	78
74	3	1	79
74	4	1	80
75	1	1	93
75	2	1	94
75	3	1	95
75	4	1	96
76	1	1	109
76	2	1	110
76	3	1	111
76	4	1	112
77	1	1	125
77	2	1	126
77	3	1	127
77	4	1	128
78	1	1	141
78	2	1	142
78	3	1	143
78	4	1	144
79	1	1	157
79	2	1	158
79	3	1	159
79	4	1	160
80	1	1	173
80	2	1	174
80	3	1	175
80	4	1	176
81	1	1	189
81	2	1	190
81	3	1	191
81	4	1	192
82	1	1	205
82	2	1	206
82	3	1	207
82	4	1	208
83	1	1	221
83	2	1	222
83	3	1	223
83	4	1	224
84	1	1	237
84	2	1	238
84	3	1	239
84	4	1	240

Matrix Position		Daughter Board	Relay No.
X	Y		
85	1	1	253
85	2	1	254
85	3	1	255
85	4	1	256
86	1	1	269
86	2	1	270
86	3	1	271
86	4	1	272
87	1	1	285
87	2	1	286
87	3	1	287
87	4	1	288
88	1	1	301
88	2	1	302
88	3	1	303
88	4	1	304
89	1	1	317
89	2	1	318
89	3	1	319
89	4	1	320
90	1	1	333
90	2	1	334
90	3	1	335
90	4	1	336
91	1	1	349
91	2	1	350
91	3	1	351
91	4	1	352
92	1	1	365
92	2	1	366
92	3	1	367
92	4	1	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
93	1	2	1
93	2	2	2
93	3	2	3
93	4	2	4
94	1	2	17
94	2	2	18
94	3	2	19
94	4	2	20
95	1	2	33
95	2	2	34
95	3	2	35
95	4	2	36
96	1	2	49
96	2	2	50
96	3	2	51
96	4	2	52
97	1	2	65
97	2	2	66
97	3	2	67
97	4	2	68
98	1	2	81
98	2	2	82
98	3	2	83
98	4	2	84
99	1	2	97
99	2	2	98
99	3	2	99
99	4	2	100
100	1	2	113
100	2	2	114
100	3	2	115
100	4	2	116
101	1	2	129
101	2	2	130
101	3	2	131
101	4	2	132
102	1	2	145
102	2	2	146
102	3	2	147
102	4	2	148
103	1	2	161
103	2	2	162
103	3	2	163
103	4	2	164
104	1	2	177
104	2	2	178
104	3	2	179
104	4	2	180

Matrix Position		Daughter Board	Relay No.
X	Y		
105	1	2	193
105	2	2	194
105	3	2	195
105	4	2	196
106	1	2	209
106	2	2	210
106	3	2	211
106	4	2	212
107	1	2	225
107	2	2	226
107	3	2	227
107	4	2	228
108	1	2	241
108	2	2	242
108	3	2	243
108	4	2	244
109	1	2	257
109	2	2	258
109	3	2	259
109	4	2	260
110	1	2	273
110	2	2	274
110	3	2	275
110	4	2	276
111	1	2	289
111	2	2	290
111	3	2	291
111	4	2	292
112	1	2	305
112	2	2	306
112	3	2	307
112	4	2	308
113	1	2	321
113	2	2	322
113	3	2	323
113	4	2	324
114	1	2	337
114	2	2	338
114	3	2	339
114	4	2	340
115	1	2	353
115	2	2	354
115	3	2	355
115	4	2	356
116	1	2	5
116	2	2	6
116	3	2	7
116	4	2	8

Matrix Position		Daughter Board	Relay No.
X	Y		
117	1	2	21
117	2	2	22
117	3	2	23
117	4	2	24
118	1	2	37
118	2	2	38
118	3	2	39
118	4	2	40
119	1	2	53
119	2	2	54
119	3	2	55
119	4	2	56
120	1	2	69
120	2	2	70
120	3	2	71
120	4	2	72
121	1	2	85
121	2	2	86
121	3	2	87
121	4	2	88
122	1	2	101
122	2	2	102
122	3	2	103
122	4	2	104
123	1	2	117
123	2	2	118
123	3	2	119
123	4	2	120
124	1	2	133
124	2	2	134
124	3	2	135
124	4	2	136
125	1	2	149
125	2	2	150
125	3	2	151
125	4	2	152
126	1	2	165
126	2	2	166
126	3	2	167
126	4	2	168
127	1	2	181
127	2	2	182
127	3	2	183
127	4	2	184
128	1	2	197
128	2	2	198
128	3	2	199
128	4	2	200

Matrix Position		Daughter Board	Relay No.
X	Y		
129	1	2	213
129	2	2	214
129	3	2	215
129	4	2	216
130	1	2	229
130	2	2	230
130	3	2	231
130	4	2	232
131	1	2	245
131	2	2	246
131	3	2	247
131	4	2	248
132	1	2	261
132	2	2	262
132	3	2	263
132	4	2	264
133	1	2	277
133	2	2	278
133	3	2	279
133	4	2	280
134	1	2	293
134	2	2	294
134	3	2	295
134	4	2	296
135	1	2	309
135	2	2	310
135	3	2	311
135	4	2	312
136	1	2	325
136	2	2	326
136	3	2	327
136	4	2	328
137	1	2	341
137	2	2	342
137	3	2	343
137	4	2	344
138	1	2	357
138	2	2	358
138	3	2	359
138	4	2	360
139	1	2	9
139	2	2	10
139	3	2	11
139	4	2	12
140	1	2	25
140	2	2	26
140	3	2	27
140	4	2	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
141	1	2	41
141	2	2	42
141	3	2	43
141	4	2	44
142	1	2	57
142	2	2	58
142	3	2	59
142	4	2	60
143	1	2	73
143	2	2	74
143	3	2	75
143	4	2	76
144	1	2	89
144	2	2	90
144	3	2	91
144	4	2	92
145	1	2	105
145	2	2	106
145	3	2	107
145	4	2	108
146	1	2	121
146	2	2	122
146	3	2	123
146	4	2	124
147	1	2	137
147	2	2	138
147	3	2	139
147	4	2	140
148	1	2	153
148	2	2	154
148	3	2	155
148	4	2	156
149	1	2	169
149	2	2	170
149	3	2	171
149	4	2	172
150	1	2	185
150	2	2	186
150	3	2	187
150	4	2	188
151	1	2	201
151	2	2	202
151	3	2	203
151	4	2	204
152	1	2	217
152	2	2	218
152	3	2	219
152	4	2	220

Matrix Position		Daughter Board	Relay No.
X	Y		
153	1	2	233
153	2	2	234
153	3	2	235
153	4	2	236
154	1	2	249
154	2	2	250
154	3	2	251
154	4	2	252
155	1	2	265
155	2	2	266
155	3	2	267
155	4	2	268
156	1	2	281
156	2	2	282
156	3	2	283
156	4	2	284
157	1	2	297
157	2	2	298
157	3	2	299
157	4	2	300
158	1	2	313
158	2	2	314
158	3	2	315
158	4	2	316
159	1	2	329
159	2	2	330
159	3	2	331
159	4	2	332
160	1	2	345
160	2	2	346
160	3	2	347
160	4	2	348
161	1	2	361
161	2	2	362
161	3	2	363
161	4	2	364
162	1	2	13
162	2	2	14
162	3	2	15
162	4	2	16
163	1	2	29
163	2	2	30
163	3	2	31
163	4	2	32
164	1	2	45
164	2	2	46
164	3	2	47
164	4	2	48

Matrix Position		Daughter Board	Relay No.
X	Y		
165	1	2	61
165	2	2	62
165	3	2	63
165	4	2	64
166	1	2	77
166	2	2	78
166	3	2	79
166	4	2	80
167	1	2	93
167	2	2	94
167	3	2	95
167	4	2	96
168	1	2	109
168	2	2	110
168	3	2	111
168	4	2	112
169	1	2	125
169	2	2	126
169	3	2	127
169	4	2	128
170	1	2	141
170	2	2	142
170	3	2	143
170	4	2	144
171	1	2	157
171	2	2	158
171	3	2	159
171	4	2	160
172	1	2	173
172	2	2	174
172	3	2	175
172	4	2	176
173	1	2	189
173	2	2	190
173	3	2	191
173	4	2	192
174	1	2	205
174	2	2	206
174	3	2	207
174	4	2	208
175	1	2	221
175	2	2	222
175	3	2	223
175	4	2	224
176	1	2	237
176	2	2	238
176	3	2	239
176	4	2	240

Matrix Position		Daughter Board	Relay No.
X	Y		
177	1	2	253
177	2	2	254
177	3	2	255
177	4	2	256
178	1	2	269
178	2	2	270
178	3	2	271
178	4	2	272
179	1	2	285
179	2	2	286
179	3	2	287
179	4	2	288
180	1	2	301
180	2	2	302
180	3	2	303
180	4	2	304
181	1	2	317
181	2	2	318
181	3	2	319
181	4	2	320
182	1	2	333
182	2	2	334
182	3	2	335
182	4	2	336
183	1	2	349
183	2	2	350
183	3	2	351
183	4	2	352
184	1	2	365
184	2	2	366
184	3	2	367
184	4	2	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
185	1	3	1
185	2	3	2
185	3	3	3
185	4	3	4
186	1	3	17
186	2	3	18
186	3	3	19
186	4	3	20
187	1	3	33
187	2	3	34
187	3	3	35
187	4	3	36
188	1	3	49
188	2	3	50
188	3	3	51
188	4	3	52
189	1	3	65
189	2	3	66
189	3	3	67
189	4	3	68
190	1	3	81
190	2	3	82
190	3	3	83
190	4	3	84
191	1	3	97
191	2	3	98
191	3	3	99
191	4	3	100
192	1	3	113
192	2	3	114
192	3	3	115
192	4	3	116
193	1	3	129
193	2	3	130
193	3	3	131
193	4	3	132
194	1	3	145
194	2	3	146
194	3	3	147
194	4	3	148
195	1	3	161
195	2	3	162
195	3	3	163
195	4	3	164
196	1	3	177
196	2	3	178
196	3	3	179
196	4	3	180

Matrix Position		Daughter Board	Relay No.
X	Y		
197	1	3	193
197	2	3	194
197	3	3	195
197	4	3	196
198	1	3	209
198	2	3	210
198	3	3	211
198	4	3	212
199	1	3	225
199	2	3	226
199	3	3	227
199	4	3	228
200	1	3	241
200	2	3	242
200	3	3	243
200	4	3	244
201	1	3	257
201	2	3	258
201	3	3	259
201	4	3	260
202	1	3	273
202	2	3	274
202	3	3	275
202	4	3	276
203	1	3	289
203	2	3	290
203	3	3	291
203	4	3	292
204	1	3	305
204	2	3	306
204	3	3	307
204	4	3	308
205	1	3	321
205	2	3	322
205	3	3	323
205	4	3	324
206	1	3	337
206	2	3	338
206	3	3	339
206	4	3	340
207	1	3	353
207	2	3	354
207	3	3	355
207	4	3	356
208	1	3	5
208	2	3	6
208	3	3	7
208	4	3	8

Matrix Position		Daughter Board	Relay No.
X	Y		
209	1	3	21
209	2	3	22
209	3	3	23
209	4	3	24
210	1	3	37
210	2	3	38
210	3	3	39
210	4	3	40
211	1	3	53
211	2	3	54
211	3	3	55
211	4	3	56
212	1	3	69
212	2	3	70
212	3	3	71
212	4	3	72
213	1	3	85
213	2	3	86
213	3	3	87
213	4	3	88
214	1	3	101
214	2	3	102
214	3	3	103
214	4	3	104
215	1	3	117
215	2	3	118
215	3	3	119
215	4	3	120
216	1	3	133
216	2	3	134
216	3	3	135
216	4	3	136
217	1	3	149
217	2	3	150
217	3	3	151
217	4	3	152
218	1	3	165
218	2	3	166
218	3	3	167
218	4	3	168
219	1	3	181
219	2	3	182
219	3	3	183
219	4	3	184
220	1	3	197
220	2	3	198
220	3	3	199
220	4	3	200

Matrix Position		Daughter Board	Relay No.
X	Y		
221	1	3	213
221	2	3	214
221	3	3	215
221	4	3	216
222	1	3	229
222	2	3	230
222	3	3	231
222	4	3	232
223	1	3	245
223	2	3	246
223	3	3	247
223	4	3	248
224	1	3	261
224	2	3	262
224	3	3	263
224	4	3	264
225	1	3	277
225	2	3	278
225	3	3	279
225	4	3	280
226	1	3	293
226	2	3	294
226	3	3	295
226	4	3	296
227	1	3	309
227	2	3	310
227	3	3	311
227	4	3	312
228	1	3	325
228	2	3	326
228	3	3	327
228	4	3	328
229	1	3	341
229	2	3	342
229	3	3	343
229	4	3	344
230	1	3	357
230	2	3	358
230	3	3	359
230	4	3	360
231	1	3	9
231	2	3	10
231	3	3	11
231	4	3	12
232	1	3	25
232	2	3	26
232	3	3	27
232	4	3	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
233	1	3	41
233	2	3	42
233	3	3	43
233	4	3	44
234	1	3	57
234	2	3	58
234	3	3	59
234	4	3	60
235	1	3	73
235	2	3	74
235	3	3	75
235	4	3	76
236	1	3	89
236	2	3	90
236	3	3	91
236	4	3	92
237	1	3	105
237	2	3	106
237	3	3	107
237	4	3	108
238	1	3	121
238	2	3	122
238	3	3	123
238	4	3	124
239	1	3	137
239	2	3	138
239	3	3	139
239	4	3	140
240	1	3	153
240	2	3	154
240	3	3	155
240	4	3	156
241	1	3	169
241	2	3	170
241	3	3	171
241	4	3	172
242	1	3	185
242	2	3	186
242	3	3	187
242	4	3	188
243	1	3	201
243	2	3	202
243	3	3	203
243	4	3	204
244	1	3	217
244	2	3	218
244	3	3	219
244	4	3	220
245	1	3	233
245	2	3	234
245	3	3	235
245	4	3	236
246	1	3	249
246	2	3	250
246	3	3	251
246	4	3	252
247	1	3	265
247	2	3	266
247	3	3	267
247	4	3	268
248	1	3	281
248	2	3	282
248	3	3	283
248	4	3	284
249	1	3	297
249	2	3	298
249	3	3	299
249	4	3	300
250	1	3	313
250	2	3	314
250	3	3	315
250	4	3	316
251	1	3	329
251	2	3	330
251	3	3	331
251	4	3	332
252	1	3	345
252	2	3	346
252	3	3	347
252	4	3	348
253	1	3	361
253	2	3	362
253	3	3	363
253	4	3	364
254	1	3	13
254	2	3	14
254	3	3	15
254	4	3	16
255	1	3	29
255	2	3	30
255	3	3	31
255	4	3	32
256	1	3	45
256	2	3	46
256	3	3	47
256	4	3	48
257	1	3	61
257	2	3	62
257	3	3	63
257	4	3	64
258	1	3	77
258	2	3	78
258	3	3	79
258	4	3	80
259	1	3	93
259	2	3	94
259	3	3	95
259	4	3	96
260	1	3	109
260	2	3	110
260	3	3	111
260	4	3	112
261	1	3	125
261	2	3	126
261	3	3	127
261	4	3	128
262	1	3	141
262	2	3	142
262	3	3	143
262	4	3	144
263	1	3	157
263	2	3	158
263	3	3	159
263	4	3	160
264	1	3	173
264	2	3	174
264	3	3	175
264	4	3	176
265	1	3	189
265	2	3	190
265	3	3	191
265	4	3	192
266	1	3	205
266	2	3	206
266	3	3	207
266	4	3	208
267	1	3	221
267	2	3	222
267	3	3	223
267	4	3	224
268	1	3	237
268	2	3	238
268	3	3	239
268	4	3	240
269	1	3	253
269	2	3	254
269	3	3	255
269	4	3	256
270	1	3	269
270	2	3	270
270	3	3	271
270	4	3	272
271	1	3	285
271	2	3	286
271	3	3	287
271	4	3	288
272	1	3	301
272	2	3	302
272	3	3	303
272	4	3	304
273	1	3	317
273	2	3	318
273	3	3	319
273	4	3	320
274	1	3	333
274	2	3	334
274	3	3	335
274	4	3	336
275	1	3	349
275	2	3	350
275	3	3	351
275	4	3	352
276	1	3	365
276	2	3	366
276	3	3	367
276	4	3	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
277	1	4	1
277	2	4	2
277	3	4	3
277	4	4	4
278	1	4	17
278	2	4	18
278	3	4	19
278	4	4	20
279	1	4	33
279	2	4	34
279	3	4	35
279	4	4	36
280	1	4	49
280	2	4	50
280	3	4	51
280	4	4	52
281	1	4	65
281	2	4	66
281	3	4	67
281	4	4	68
282	1	4	81
282	2	4	82
282	3	4	83
282	4	4	84
283	1	4	97
283	2	4	98
283	3	4	99
283	4	4	100
284	1	4	113
284	2	4	114
284	3	4	115
284	4	4	116
285	1	4	129
285	2	4	130
285	3	4	131
285	4	4	132
286	1	4	145
286	2	4	146
286	3	4	147
286	4	4	148
287	1	4	161
287	2	4	162
287	3	4	163
287	4	4	164
288	1	4	177
288	2	4	178
288	3	4	179
288	4	4	180

Matrix Position		Daughter Board	Relay No.
X	Y		
289	1	4	193
289	2	4	194
289	3	4	195
289	4	4	196
290	1	4	209
290	2	4	210
290	3	4	211
290	4	4	212
291	1	4	225
291	2	4	226
291	3	4	227
291	4	4	228
292	1	4	241
292	2	4	242
292	3	4	243
292	4	4	244
293	1	4	257
293	2	4	258
293	3	4	259
293	4	4	260
294	1	4	273
294	2	4	274
294	3	4	275
294	4	4	276
295	1	4	289
295	2	4	290
295	3	4	291
295	4	4	292
296	1	4	305
296	2	4	306
296	3	4	307
296	4	4	308
297	1	4	321
297	2	4	322
297	3	4	323
297	4	4	324
298	1	4	337
298	2	4	338
298	3	4	339
298	4	4	340
299	1	4	353
299	2	4	354
299	3	4	355
299	4	4	356
300	1	4	5
300	2	4	6
300	3	4	7
300	4	4	8

Matrix Position		Daughter Board	Relay No.
X	Y		
301	1	4	21
301	2	4	22
301	3	4	23
301	4	4	24
302	1	4	37
302	2	4	38
302	3	4	39
302	4	4	40
303	1	4	53
303	2	4	54
303	3	4	55
303	4	4	56
304	1	4	69
304	2	4	70
304	3	4	71
304	4	4	72
305	1	4	85
305	2	4	86
305	3	4	87
305	4	4	88
306	1	4	101
306	2	4	102
306	3	4	103
306	4	4	104
307	1	4	117
307	2	4	118
307	3	4	119
307	4	4	120
308	1	4	133
308	2	4	134
308	3	4	135
308	4	4	136
309	1	4	149
309	2	4	150
309	3	4	151
309	4	4	152
310	1	4	165
310	2	4	166
310	3	4	167
310	4	4	168
311	1	4	181
311	2	4	182
311	3	4	183
311	4	4	184
312	1	4	197
312	2	4	198
312	3	4	199
312	4	4	200

Matrix Position		Daughter Board	Relay No.
X	Y		
313	1	4	213
313	2	4	214
313	3	4	215
313	4	4	216
314	1	4	229
314	2	4	230
314	3	4	231
314	4	4	232
315	1	4	245
315	2	4	246
315	3	4	247
315	4	4	248
316	1	4	261
316	2	4	262
316	3	4	263
316	4	4	264
317	1	4	277
317	2	4	278
317	3	4	279
317	4	4	280
318	1	4	293
318	2	4	294
318	3	4	295
318	4	4	296
319	1	4	309
319	2	4	310
319	3	4	311
319	4	4	312
320	1	4	325
320	2	4	326
320	3	4	327
320	4	4	328
321	1	4	341
321	2	4	342
321	3	4	343
321	4	4	344
322	1	4	357
322	2	4	358
322	3	4	359
322	4	4	360
323	1	4	9
323	2	4	10
323	3	4	11
323	4	4	12
324	1	4	25
324	2	4	26
324	3	4	27
324	4	4	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
325	1	4	41
325	2	4	42
325	3	4	43
325	4	4	44
326	1	4	57
326	2	4	58
326	3	4	59
326	4	4	60
327	1	4	73
327	2	4	74
327	3	4	75
327	4	4	76
328	1	4	89
328	2	4	90
328	3	4	91
328	4	4	92
329	1	4	105
329	2	4	106
329	3	4	107
329	4	4	108
330	1	4	121
330	2	4	122
330	3	4	123
330	4	4	124
331	1	4	137
331	2	4	138
331	3	4	139
331	4	4	140
332	1	4	153
332	2	4	154
332	3	4	155
332	4	4	156
333	1	4	169
333	2	4	170
333	3	4	171
333	4	4	172
334	1	4	185
334	2	4	186
334	3	4	187
334	4	4	188
335	1	4	201
335	2	4	202
335	3	4	203
335	4	4	204
336	1	4	217
336	2	4	218
336	3	4	219
336	4	4	220

Matrix Position		Daughter Board	Relay No.
X	Y		
337	1	4	233
337	2	4	234
337	3	4	235
337	4	4	236
338	1	4	249
338	2	4	250
338	3	4	251
338	4	4	252
339	1	4	265
339	2	4	266
339	3	4	267
339	4	4	268
340	1	4	281
340	2	4	282
340	3	4	283
340	4	4	284
341	1	4	297
341	2	4	298
341	3	4	299
341	4	4	300
342	1	4	313
342	2	4	314
342	3	4	315
342	4	4	316
343	1	4	329
343	2	4	330
343	3	4	331
343	4	4	332
344	1	4	345
344	2	4	346
344	3	4	347
344	4	4	348
345	1	4	361
345	2	4	362
345	3	4	363
345	4	4	364
346	1	4	13
346	2	4	14
346	3	4	15
346	4	4	16
347	1	4	29
347	2	4	30
347	3	4	31
347	4	4	32
348	1	4	45
348	2	4	46
348	3	4	47
348	4	4	48

Matrix Position		Daughter Board	Relay No.
X	Y		
349	1	4	61
349	2	4	62
349	3	4	63
349	4	4	64
350	1	4	77
350	2	4	78
350	3	4	79
350	4	4	80
351	1	4	93
351	2	4	94
351	3	4	95
351	4	4	96
352	1	4	109
352	2	4	110
352	3	4	111
352	4	4	112
353	1	4	125
353	2	4	126
353	3	4	127
353	4	4	128
354	1	4	141
354	2	4	142
354	3	4	143
354	4	4	144
355	1	4	157
355	2	4	158
355	3	4	159
355	4	4	160
356	1	4	173
356	2	4	174
356	3	4	175
356	4	4	176
357	1	4	189
357	2	4	190
357	3	4	191
357	4	4	192
358	1	4	205
358	2	4	206
358	3	4	207
358	4	4	208
359	1	4	221
359	2	4	222
359	3	4	223
359	4	4	224
360	1	4	237
360	2	4	238
360	3	4	239
360	4	4	240

Matrix Position		Daughter Board	Relay No.
X	Y		
361	1	4	253
361	2	4	254
361	3	4	255
361	4	4	256
362	1	4	269
362	2	4	270
362	3	4	271
362	4	4	272
363	1	4	285
363	2	4	286
363	3	4	287
363	4	4	288
364	1	4	301
364	2	4	302
364	3	4	303
364	4	4	304
365	1	4	317
365	2	4	318
365	3	4	319
365	4	4	320
366	1	4	333
366	2	4	334
366	3	4	335
366	4	4	336
367	1	4	349
367	2	4	350
367	3	4	351
367	4	4	352
368	1	4	365
368	2	4	366
368	3	4	367
368	4	4	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
369	1	5	1
369	2	5	2
369	3	5	3
369	4	5	4
370	1	5	17
370	2	5	18
370	3	5	19
370	4	5	20
371	1	5	33
371	2	5	34
371	3	5	35
371	4	5	36
372	1	5	49
372	2	5	50
372	3	5	51
372	4	5	52
373	1	5	65
373	2	5	66
373	3	5	67
373	4	5	68
374	1	5	81
374	2	5	82
374	3	5	83
374	4	5	84
375	1	5	97
375	2	5	98
375	3	5	99
375	4	5	100
376	1	5	113
376	2	5	114
376	3	5	115
376	4	5	116
377	1	5	129
377	2	5	130
377	3	5	131
377	4	5	132
378	1	5	145
378	2	5	146
378	3	5	147
378	4	5	148
379	1	5	161
379	2	5	162
379	3	5	163
379	4	5	164
380	1	5	177
380	2	5	178
380	3	5	179
380	4	5	180

Matrix Position		Daughter Board	Relay No.
X	Y		
381	1	5	193
381	2	5	194
381	3	5	195
381	4	5	196
382	1	5	209
382	2	5	210
382	3	5	211
382	4	5	212
383	1	5	225
383	2	5	226
383	3	5	227
383	4	5	228
384	1	5	241
384	2	5	242
384	3	5	243
384	4	5	244
385	1	5	257
385	2	5	258
385	3	5	259
385	4	5	260
386	1	5	273
386	2	5	274
386	3	5	275
386	4	5	276
387	1	5	289
387	2	5	290
387	3	5	291
387	4	5	292
388	1	5	305
388	2	5	306
388	3	5	307
388	4	5	308
389	1	5	321
389	2	5	322
389	3	5	323
389	4	5	324
390	1	5	337
390	2	5	338
390	3	5	339
390	4	5	340
391	1	5	353
391	2	5	354
391	3	5	355
391	4	5	356
392	1	5	5
392	2	5	6
392	3	5	7
392	4	5	8

Matrix Position		Daughter Board	Relay No.
X	Y		
393	1	5	21
393	2	5	22
393	3	5	23
393	4	5	24
394	1	5	37
394	2	5	38
394	3	5	39
394	4	5	40
395	1	5	53
395	2	5	54
395	3	5	55
395	4	5	56
396	1	5	69
396	2	5	70
396	3	5	71
396	4	5	72
397	1	5	85
397	2	5	86
397	3	5	87
397	4	5	88
398	1	5	101
398	2	5	102
398	3	5	103
398	4	5	104
399	1	5	117
399	2	5	118
399	3	5	119
399	4	5	120
400	1	5	133
400	2	5	134
400	3	5	135
400	4	5	136
401	1	5	149
401	2	5	150
401	3	5	151
401	4	5	152
402	1	5	165
402	2	5	166
402	3	5	167
402	4	5	168
403	1	5	181
403	2	5	182
403	3	5	183
403	4	5	184
404	1	5	197
404	2	5	198
404	3	5	199
404	4	5	200

Matrix Position		Daughter Board	Relay No.
X	Y		
405	1	5	213
405	2	5	214
405	3	5	215
405	4	5	216
406	1	5	229
406	2	5	230
406	3	5	231
406	4	5	232
407	1	5	245
407	2	5	246
407	3	5	247
407	4	5	248
408	1	5	261
408	2	5	262
408	3	5	263
408	4	5	264
409	1	5	277
409	2	5	278
409	3	5	279
409	4	5	280
410	1	5	293
410	2	5	294
410	3	5	295
410	4	5	296
411	1	5	309
411	2	5	310
411	3	5	311
411	4	5	312
412	1	5	325
412	2	5	326
412	3	5	327
412	4	5	328
413	1	5	341
413	2	5	342
413	3	5	343
413	4	5	344
414	1	5	357
414	2	5	358
414	3	5	359
414	4	5	360
415	1	5	9
415	2	5	10
415	3	5	11
415	4	5	12
416	1	5	25
416	2	5	26
416	3	5	27
416	4	5	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
417	1	5	41
417	2	5	42
417	3	5	43
417	4	5	44
418	1	5	57
418	2	5	58
418	3	5	59
418	4	5	60
419	1	5	73
419	2	5	74
419	3	5	75
419	4	5	76
420	1	5	89
420	2	5	90
420	3	5	91
420	4	5	92
421	1	5	105
421	2	5	106
421	3	5	107
421	4	5	108
422	1	5	121
422	2	5	122
422	3	5	123
422	4	5	124
423	1	5	137
423	2	5	138
423	3	5	139
423	4	5	140
424	1	5	153
424	2	5	154
424	3	5	155
424	4	5	156
425	1	5	169
425	2	5	170
425	3	5	171
425	4	5	172
426	1	5	185
426	2	5	186
426	3	5	187
426	4	5	188
427	1	5	201
427	2	5	202
427	3	5	203
427	4	5	204
428	1	5	217
428	2	5	218
428	3	5	219
428	4	5	220

Matrix Position		Daughter Board	Relay No.
X	Y		
429	1	5	233
429	2	5	234
429	3	5	235
429	4	5	236
430	1	5	249
430	2	5	250
430	3	5	251
430	4	5	252
431	1	5	265
431	2	5	266
431	3	5	267
431	4	5	268
432	1	5	281
432	2	5	282
432	3	5	283
432	4	5	284
433	1	5	297
433	2	5	298
433	3	5	299
433	4	5	300
434	1	5	313
434	2	5	314
434	3	5	315
434	4	5	316
435	1	5	329
435	2	5	330
435	3	5	331
435	4	5	332
436	1	5	345
436	2	5	346
436	3	5	347
436	4	5	348
437	1	5	361
437	2	5	362
437	3	5	363
437	4	5	364
438	1	5	13
438	2	5	14
438	3	5	15
438	4	5	16
439	1	5	29
439	2	5	30
439	3	5	31
439	4	5	32
440	1	5	45
440	2	5	46
440	3	5	47
440	4	5	48

Matrix Position		Daughter Board	Relay No.
X	Y		
441	1	5	61
441	2	5	62
441	3	5	63
441	4	5	64
442	1	5	77
442	2	5	78
442	3	5	79
442	4	5	80
443	1	5	93
443	2	5	94
443	3	5	95
443	4	5	96
444	1	5	109
444	2	5	110
444	3	5	111
444	4	5	112
445	1	5	125
445	2	5	126
445	3	5	127
445	4	5	128
446	1	5	141
446	2	5	142
446	3	5	143
446	4	5	144
447	1	5	157
447	2	5	158
447	3	5	159
447	4	5	160
448	1	5	173
448	2	5	174
448	3	5	175
448	4	5	176
449	1	5	189
449	2	5	190
449	3	5	191
449	4	5	192
450	1	5	205
450	2	5	206
450	3	5	207
450	4	5	208
451	1	5	221
451	2	5	222
451	3	5	223
451	4	5	224
452	1	5	237
452	2	5	238
452	3	5	239
452	4	5	240

Matrix Position		Daughter Board	Relay No.
X	Y		
453	1	5	253
453	2	5	254
453	3	5	255
453	4	5	256
454	1	5	269
454	2	5	270
454	3	5	271
454	4	5	272
455	1	5	285
455	2	5	286
455	3	5	287
455	4	5	288
456	1	5	301
456	2	5	302
456	3	5	303
456	4	5	304
457	1	5	317
457	2	5	318
457	3	5	319
457	4	5	320
458	1	5	333
458	2	5	334
458	3	5	335
458	4	5	336
459	1	5	349
459	2	5	350
459	3	5	351
459	4	5	352
460	1	5	365
460	2	5	366
460	3	5	367
460	4	5	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
461	1	6	1
461	2	6	2
461	3	6	3
461	4	6	4
462	1	6	17
462	2	6	18
462	3	6	19
462	4	6	20
463	1	6	33
463	2	6	34
463	3	6	35
463	4	6	36
464	1	6	49
464	2	6	50
464	3	6	51
464	4	6	52
465	1	6	65
465	2	6	66
465	3	6	67
465	4	6	68
466	1	6	81
466	2	6	82
466	3	6	83
466	4	6	84
467	1	6	97
467	2	6	98
467	3	6	99
467	4	6	100
468	1	6	113
468	2	6	114
468	3	6	115
468	4	6	116
469	1	6	129
469	2	6	130
469	3	6	131
469	4	6	132
470	1	6	145
470	2	6	146
470	3	6	147
470	4	6	148
471	1	6	161
471	2	6	162
471	3	6	163
471	4	6	164
472	1	6	177
472	2	6	178
472	3	6	179
472	4	6	180

Matrix Position		Daughter Board	Relay No.
X	Y		
473	1	6	193
473	2	6	194
473	3	6	195
473	4	6	196
474	1	6	209
474	2	6	210
474	3	6	211
474	4	6	212
475	1	6	225
475	2	6	226
475	3	6	227
475	4	6	228
476	1	6	241
476	2	6	242
476	3	6	243
476	4	6	244
477	1	6	257
477	2	6	258
477	3	6	259
477	4	6	260
478	1	6	273
478	2	6	274
478	3	6	275
478	4	6	276
479	1	6	289
479	2	6	290
479	3	6	291
479	4	6	292
480	1	6	305
480	2	6	306
480	3	6	307
480	4	6	308
481	1	6	321
481	2	6	322
481	3	6	323
481	4	6	324
482	1	6	337
482	2	6	338
482	3	6	339
482	4	6	340
483	1	6	353
483	2	6	354
483	3	6	355
483	4	6	356
484	1	6	5
484	2	6	6
484	3	6	7
484	4	6	8

Matrix Position		Daughter Board	Relay No.
X	Y		
485	1	6	21
485	2	6	22
485	3	6	23
485	4	6	24
486	1	6	37
486	2	6	38
486	3	6	39
486	4	6	40
487	1	6	53
487	2	6	54
487	3	6	55
487	4	6	56
488	1	6	69
488	2	6	70
488	3	6	71
488	4	6	72
489	1	6	85
489	2	6	86
489	3	6	87
489	4	6	88
490	1	6	101
490	2	6	102
490	3	6	103
490	4	6	104
491	1	6	117
491	2	6	118
491	3	6	119
491	4	6	120
492	1	6	133
492	2	6	134
492	3	6	135
492	4	6	136
493	1	6	149
493	2	6	150
493	3	6	151
493	4	6	152
494	1	6	165
494	2	6	166
494	3	6	167
494	4	6	168
495	1	6	181
495	2	6	182
495	3	6	183
495	4	6	184
496	1	6	197
496	2	6	198
496	3	6	199
496	4	6	200

Matrix Position		Daughter Board	Relay No.
X	Y		
497	1	6	213
497	2	6	214
497	3	6	215
497	4	6	216
498	1	6	229
498	2	6	230
498	3	6	231
498	4	6	232
499	1	6	245
499	2	6	246
499	3	6	247
499	4	6	248
500	1	6	261
500	2	6	262
500	3	6	263
500	4	6	264
501	1	6	277
501	2	6	278
501	3	6	279
501	4	6	280
502	1	6	293
502	2	6	294
502	3	6	295
502	4	6	296
503	1	6	309
503	2	6	310
503	3	6	311
503	4	6	312
504	1	6	325
504	2	6	326
504	3	6	327
504	4	6	328
505	1	6	341
505	2	6	342
505	3	6	343
505	4	6	344
506	1	6	357
506	2	6	358
506	3	6	359
506	4	6	360
507	1	6	9
507	2	6	10
507	3	6	11
507	4	6	12
508	1	6	25
508	2	6	26
508	3	6	27
508	4	6	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
509	1	6	41
509	2	6	42
509	3	6	43
509	4	6	44
510	1	6	57
510	2	6	58
510	3	6	59
510	4	6	60
511	1	6	73
511	2	6	74
511	3	6	75
511	4	6	76
512	1	6	89
512	2	6	90
512	3	6	91
512	4	6	92
513	1	6	105
513	2	6	106
513	3	6	107
513	4	6	108
514	1	6	121
514	2	6	122
514	3	6	123
514	4	6	124
515	1	6	137
515	2	6	138
515	3	6	139
515	4	6	140
516	1	6	153
516	2	6	154
516	3	6	155
516	4	6	156
517	1	6	169
517	2	6	170
517	3	6	171
517	4	6	172
518	1	6	185
518	2	6	186
518	3	6	187
518	4	6	188
519	1	6	201
519	2	6	202
519	3	6	203
519	4	6	204
520	1	6	217
520	2	6	218
520	3	6	219
520	4	6	220

Matrix Position		Daughter Board	Relay No.
X	Y		
521	1	6	233
521	2	6	234
521	3	6	235
521	4	6	236
522	1	6	249
522	2	6	250
522	3	6	251
522	4	6	252
523	1	6	265
523	2	6	266
523	3	6	267
523	4	6	268
524	1	6	281
524	2	6	282
524	3	6	283
524	4	6	284
525	1	6	297
525	2	6	298
525	3	6	299
525	4	6	300
526	1	6	313
526	2	6	314
526	3	6	315
526	4	6	316
527	1	6	329
527	2	6	330
527	3	6	331
527	4	6	332
528	1	6	345
528	2	6	346
528	3	6	347
528	4	6	348
529	1	6	361
529	2	6	362
529	3	6	363
529	4	6	364
530	1	6	13
530	2	6	14
530	3	6	15
530	4	6	16
531	1	6	29
531	2	6	30
531	3	6	31
531	4	6	32
532	1	6	45
532	2	6	46
532	3	6	47
532	4	6	48

Matrix Position		Daughter Board	Relay No.
X	Y		
533	1	6	61
533	2	6	62
533	3	6	63
533	4	6	64
534	1	6	77
534	2	6	78
534	3	6	79
534	4	6	80
535	1	6	93
535	2	6	94
535	3	6	95
535	4	6	96
536	1	6	109
536	2	6	110
536	3	6	111
536	4	6	112
537	1	6	125
537	2	6	126
537	3	6	127
537	4	6	128
538	1	6	141
538	2	6	142
538	3	6	143
538	4	6	144
539	1	6	157
539	2	6	158
539	3	6	159
539	4	6	160
540	1	6	173
540	2	6	174
540	3	6	175
540	4	6	176
541	1	6	189
541	2	6	190
541	3	6	191
541	4	6	192
542	1	6	205
542	2	6	206
542	3	6	207
542	4	6	208
543	1	6	221
543	2	6	222
543	3	6	223
543	4	6	224
544	1	6	237
544	2	6	238
544	3	6	239
544	4	6	240

Matrix Position		Daughter Board	Relay No.
X	Y		
545	1	6	253
545	2	6	254
545	3	6	255
545	4	6	256
546	1	6	269
546	2	6	270
546	3	6	271
546	4	6	272
547	1	6	285
547	2	6	286
547	3	6	287
547	4	6	288
548	1	6	301
548	2	6	302
548	3	6	303
548	4	6	304
549	1	6	317
549	2	6	318
549	3	6	319
549	4	6	320
550	1	6	333
550	2	6	334
550	3	6	335
550	4	6	336
551	1	6	349
551	2	6	350
551	3	6	351
551	4	6	352
552	1	6	365
552	2	6	366
552	3	6	367
552	4	6	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
553	1	7	1
553	2	7	2
553	3	7	3
553	4	7	4
554	1	7	17
554	2	7	18
554	3	7	19
554	4	7	20
555	1	7	33
555	2	7	34
555	3	7	35
555	4	7	36
556	1	7	49
556	2	7	50
556	3	7	51
556	4	7	52
557	1	7	65
557	2	7	66
557	3	7	67
557	4	7	68
558	1	7	81
558	2	7	82
558	3	7	83
558	4	7	84
559	1	7	97
559	2	7	98
559	3	7	99
559	4	7	100
560	1	7	113
560	2	7	114
560	3	7	115
560	4	7	116
561	1	7	129
561	2	7	130
561	3	7	131
561	4	7	132
562	1	7	145
562	2	7	146
562	3	7	147
562	4	7	148
563	1	7	161
563	2	7	162
563	3	7	163
563	4	7	164
564	1	7	177
564	2	7	178
564	3	7	179
564	4	7	180

Matrix Position		Daughter Board	Relay No.
X	Y		
565	1	7	193
565	2	7	194
565	3	7	195
565	4	7	196
566	1	7	209
566	2	7	210
566	3	7	211
566	4	7	212
567	1	7	225
567	2	7	226
567	3	7	227
567	4	7	228
568	1	7	241
568	2	7	242
568	3	7	243
568	4	7	244
569	1	7	257
569	2	7	258
569	3	7	259
569	4	7	260
570	1	7	273
570	2	7	274
570	3	7	275
570	4	7	276
571	1	7	289
571	2	7	290
571	3	7	291
571	4	7	292
572	1	7	305
572	2	7	306
572	3	7	307
572	4	7	308
573	1	7	321
573	2	7	322
573	3	7	323
573	4	7	324
574	1	7	337
574	2	7	338
574	3	7	339
574	4	7	340
575	1	7	353
575	2	7	354
575	3	7	355
575	4	7	356
576	1	7	5
576	2	7	6
576	3	7	7
576	4	7	8

Matrix Position		Daughter Board	Relay No.
X	Y		
577	1	7	21
577	2	7	22
577	3	7	23
577	4	7	24
578	1	7	37
578	2	7	38
578	3	7	39
578	4	7	40
579	1	7	53
579	2	7	54
579	3	7	55
579	4	7	56
580	1	7	69
580	2	7	70
580	3	7	71
580	4	7	72
581	1	7	85
581	2	7	86
581	3	7	87
581	4	7	88
582	1	7	101
582	2	7	102
582	3	7	103
582	4	7	104
583	1	7	117
583	2	7	118
583	3	7	119
583	4	7	120
584	1	7	133
584	2	7	134
584	3	7	135
584	4	7	136
585	1	7	149
585	2	7	150
585	3	7	151
585	4	7	152
586	1	7	165
586	2	7	166
586	3	7	167
586	4	7	168
587	1	7	181
587	2	7	182
587	3	7	183
587	4	7	184
588	1	7	197
588	2	7	198
588	3	7	199
588	4	7	200

Matrix Position		Daughter Board	Relay No.
X	Y		
589	1	7	213
589	2	7	214
589	3	7	215
589	4	7	216
590	1	7	229
590	2	7	230
590	3	7	231
590	4	7	232
591	1	7	245
591	2	7	246
591	3	7	247
591	4	7	248
592	1	7	261
592	2	7	262
592	3	7	263
592	4	7	264
593	1	7	277
593	2	7	278
593	3	7	279
593	4	7	280
594	1	7	293
594	2	7	294
594	3	7	295
594	4	7	296
595	1	7	309
595	2	7	310
595	3	7	311
595	4	7	312
596	1	7	325
596	2	7	326
596	3	7	327
596	4	7	328
597	1	7	341
597	2	7	342
597	3	7	343
597	4	7	344
598	1	7	357
598	2	7	358
598	3	7	359
598	4	7	360
599	1	7	9
599	2	7	10
599	3	7	11
599	4	7	12
600	1	7	25
600	2	7	26
600	3	7	27
600	4	7	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
601	1	7	41
601	2	7	42
601	3	7	43
601	4	7	44
602	1	7	57
602	2	7	58
602	3	7	59
602	4	7	60
603	1	7	73
603	2	7	74
603	3	7	75
603	4	7	76
604	1	7	89
604	2	7	90
604	3	7	91
604	4	7	92
605	1	7	105
605	2	7	106
605	3	7	107
605	4	7	108
606	1	7	121
606	2	7	122
606	3	7	123
606	4	7	124
607	1	7	137
607	2	7	138
607	3	7	139
607	4	7	140
608	1	7	153
608	2	7	154
608	3	7	155
608	4	7	156
609	1	7	169
609	2	7	170
609	3	7	171
609	4	7	172
610	1	7	185
610	2	7	186
610	3	7	187
610	4	7	188
611	1	7	201
611	2	7	202
611	3	7	203
611	4	7	204
612	1	7	217
612	2	7	218
612	3	7	219
612	4	7	220

Matrix Position		Daughter Board	Relay No.
X	Y		
613	1	7	233
613	2	7	234
613	3	7	235
613	4	7	236
614	1	7	249
614	2	7	250
614	3	7	251
614	4	7	252
615	1	7	265
615	2	7	266
615	3	7	267
615	4	7	268
616	1	7	281
616	2	7	282
616	3	7	283
616	4	7	284
617	1	7	297
617	2	7	298
617	3	7	299
617	4	7	300
618	1	7	313
618	2	7	314
618	3	7	315
618	4	7	316
619	1	7	329
619	2	7	330
619	3	7	331
619	4	7	332
620	1	7	345
620	2	7	346
620	3	7	347
620	4	7	348
621	1	7	361
621	2	7	362
621	3	7	363
621	4	7	364
622	1	7	13
622	2	7	14
622	3	7	15
622	4	7	16
623	1	7	29
623	2	7	30
623	3	7	31
623	4	7	32
624	1	7	45
624	2	7	46
624	3	7	47
624	4	7	48

Matrix Position		Daughter Board	Relay No.
X	Y		
625	1	7	61
625	2	7	62
625	3	7	63
625	4	7	64
626	1	7	77
626	2	7	78
626	3	7	79
626	4	7	80
627	1	7	93
627	2	7	94
627	3	7	95
627	4	7	96
628	1	7	109
628	2	7	110
628	3	7	111
628	4	7	112
629	1	7	125
629	2	7	126
629	3	7	127
629	4	7	128
630	1	7	141
630	2	7	142
630	3	7	143
630	4	7	144
631	1	7	157
631	2	7	158
631	3	7	159
631	4	7	160
632	1	7	173
632	2	7	174
632	3	7	175
632	4	7	176
633	1	7	189
633	2	7	190
633	3	7	191
633	4	7	192
634	1	7	205
634	2	7	206
634	3	7	207
634	4	7	208
635	1	7	221
635	2	7	222
635	3	7	223
635	4	7	224
636	1	7	237
636	2	7	238
636	3	7	239
636	4	7	240

Matrix Position		Daughter Board	Relay No.
X	Y		
637	1	7	253
637	2	7	254
637	3	7	255
637	4	7	256
638	1	7	269
638	2	7	270
638	3	7	271
638	4	7	272
639	1	7	285
639	2	7	286
639	3	7	287
639	4	7	288
640	1	7	301
640	2	7	302
640	3	7	303
640	4	7	304
641	1	7	317
641	2	7	318
641	3	7	319
641	4	7	320
642	1	7	333
642	2	7	334
642	3	7	335
642	4	7	336
643	1	7	349
643	2	7	350
643	3	7	351
643	4	7	352
644	1	7	365
644	2	7	366
644	3	7	367
644	4	7	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
645	1	8	1
645	2	8	2
645	3	8	3
645	4	8	4
646	1	8	17
646	2	8	18
646	3	8	19
646	4	8	20
647	1	8	33
647	2	8	34
647	3	8	35
647	4	8	36
648	1	8	49
648	2	8	50
648	3	8	51
648	4	8	52
649	1	8	65
649	2	8	66
649	3	8	67
649	4	8	68
650	1	8	81
650	2	8	82
650	3	8	83
650	4	8	84
651	1	8	97
651	2	8	98
651	3	8	99
651	4	8	100
652	1	8	113
652	2	8	114
652	3	8	115
652	4	8	116
653	1	8	129
653	2	8	130
653	3	8	131
653	4	8	132
654	1	8	145
654	2	8	146
654	3	8	147
654	4	8	148
655	1	8	161
655	2	8	162
655	3	8	163
655	4	8	164
656	1	8	177
656	2	8	178
656	3	8	179
656	4	8	180

Matrix Position		Daughter Board	Relay No.
X	Y		
657	1	8	193
657	2	8	194
657	3	8	195
657	4	8	196
658	1	8	209
658	2	8	210
658	3	8	211
658	4	8	212
659	1	8	225
659	2	8	226
659	3	8	227
659	4	8	228
660	1	8	241
660	2	8	242
660	3	8	243
660	4	8	244
661	1	8	257
661	2	8	258
661	3	8	259
661	4	8	260
662	1	8	273
662	2	8	274
662	3	8	275
662	4	8	276
663	1	8	289
663	2	8	290
663	3	8	291
663	4	8	292
664	1	8	305
664	2	8	306
664	3	8	307
664	4	8	308
665	1	8	321
665	2	8	322
665	3	8	323
665	4	8	324
666	1	8	337
666	2	8	338
666	3	8	339
666	4	8	340
667	1	8	353
667	2	8	354
667	3	8	355
667	4	8	356
668	1	8	5
668	2	8	6
668	3	8	7
668	4	8	8

Matrix Position		Daughter Board	Relay No.
X	Y		
669	1	8	21
669	2	8	22
669	3	8	23
669	4	8	24
670	1	8	37
670	2	8	38
670	3	8	39
670	4	8	40
671	1	8	53
671	2	8	54
671	3	8	55
671	4	8	56
672	1	8	69
672	2	8	70
672	3	8	71
672	4	8	72
673	1	8	85
673	2	8	86
673	3	8	87
673	4	8	88
674	1	8	101
674	2	8	102
674	3	8	103
674	4	8	104
675	1	8	117
675	2	8	118
675	3	8	119
675	4	8	120
676	1	8	133
676	2	8	134
676	3	8	135
676	4	8	136
677	1	8	149
677	2	8	150
677	3	8	151
677	4	8	152
678	1	8	165
678	2	8	166
678	3	8	167
678	4	8	168
679	1	8	181
679	2	8	182
679	3	8	183
679	4	8	184
680	1	8	197
680	2	8	198
680	3	8	199
680	4	8	200

Matrix Position		Daughter Board	Relay No.
X	Y		
681	1	8	213
681	2	8	214
681	3	8	215
681	4	8	216
682	1	8	229
682	2	8	230
682	3	8	231
682	4	8	232
683	1	8	245
683	2	8	246
683	3	8	247
683	4	8	248
684	1	8	261
684	2	8	262
684	3	8	263
684	4	8	264
685	1	8	277
685	2	8	278
685	3	8	279
685	4	8	280
686	1	8	293
686	2	8	294
686	3	8	295
686	4	8	296
687	1	8	309
687	2	8	310
687	3	8	311
687	4	8	312
688	1	8	325
688	2	8	326
688	3	8	327
688	4	8	328
689	1	8	341
689	2	8	342
689	3	8	343
689	4	8	344
690	1	8	357
690	2	8	358
690	3	8	359
690	4	8	360
691	1	8	9
691	2	8	10
691	3	8	11
691	4	8	12
692	1	8	25
692	2	8	26
692	3	8	27
692	4	8	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
693	1	8	41
693	2	8	42
693	3	8	43
693	4	8	44
694	1	8	57
694	2	8	58
694	3	8	59
694	4	8	60
695	1	8	73
695	2	8	74
695	3	8	75
695	4	8	76
696	1	8	89
696	2	8	90
696	3	8	91
696	4	8	92
697	1	8	105
697	2	8	106
697	3	8	107
697	4	8	108
698	1	8	121
698	2	8	122
698	3	8	123
698	4	8	124
699	1	8	137
699	2	8	138
699	3	8	139
699	4	8	140
700	1	8	153
700	2	8	154
700	3	8	155
700	4	8	156
701	1	8	169
701	2	8	170
701	3	8	171
701	4	8	172
702	1	8	185
702	2	8	186
702	3	8	187
702	4	8	188
703	1	8	201
703	2	8	202
703	3	8	203
703	4	8	204
704	1	8	217
704	2	8	218
704	3	8	219
704	4	8	220

Matrix Position		Daughter Board	Relay No.
X	Y		
705	1	8	233
705	2	8	234
705	3	8	235
705	4	8	236
706	1	8	249
706	2	8	250
706	3	8	251
706	4	8	252
707	1	8	265
707	2	8	266
707	3	8	267
707	4	8	268
708	1	8	281
708	2	8	282
708	3	8	283
708	4	8	284
709	1	8	297
709	2	8	298
709	3	8	299
709	4	8	300
710	1	8	313
710	2	8	314
710	3	8	315
710	4	8	316
711	1	8	329
711	2	8	330
711	3	8	331
711	4	8	332
712	1	8	345
712	2	8	346
712	3	8	347
712	4	8	348
713	1	8	361
713	2	8	362
713	3	8	363
713	4	8	364
714	1	8	13
714	2	8	14
714	3	8	15
714	4	8	16
715	1	8	29
715	2	8	30
715	3	8	31
715	4	8	32
716	1	8	45
716	2	8	46
716	3	8	47
716	4	8	48

Matrix Position		Daughter Board	Relay No.
X	Y		
717	1	8	61
717	2	8	62
717	3	8	63
717	4	8	64
718	1	8	77
718	2	8	78
718	3	8	79
718	4	8	80
719	1	8	93
719	2	8	94
719	3	8	95
719	4	8	96
720	1	8	109
720	2	8	110
720	3	8	111
720	4	8	112
721	1	8	125
721	2	8	126
721	3	8	127
721	4	8	128
722	1	8	141
722	2	8	142
722	3	8	143
722	4	8	144
723	1	8	157
723	2	8	158
723	3	8	159
723	4	8	160
724	1	8	173
724	2	8	174
724	3	8	175
724	4	8	176
725	1	8	189
725	2	8	190
725	3	8	191
725	4	8	192
726	1	8	205
726	2	8	206
726	3	8	207
726	4	8	208
727	1	8	221
727	2	8	222
727	3	8	223
727	4	8	224
728	1	8	237
728	2	8	238
728	3	8	239
728	4	8	240

Matrix Position		Daughter Board	Relay No.
X	Y		
729	1	8	253
729	2	8	254
729	3	8	255
729	4	8	256
730	1	8	269
730	2	8	270
730	3	8	271
730	4	8	272
731	1	8	285
731	2	8	286
731	3	8	287
731	4	8	288
732	1	8	301
732	2	8	302
732	3	8	303
732	4	8	304
733	1	8	317
733	2	8	318
733	3	8	319
733	4	8	320
734	1	8	333
734	2	8	334
734	3	8	335
734	4	8	336
735	1	8	349
735	2	8	350
735	3	8	351
735	4	8	352
736	1	8	365
736	2	8	366
736	3	8	367
736	4	8	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
737	1	9	1
737	2	9	2
737	3	9	3
737	4	9	4
738	1	9	17
738	2	9	18
738	3	9	19
738	4	9	20
739	1	9	33
739	2	9	34
739	3	9	35
739	4	9	36
740	1	9	49
740	2	9	50
740	3	9	51
740	4	9	52
741	1	9	65
741	2	9	66
741	3	9	67
741	4	9	68
742	1	9	81
742	2	9	82
742	3	9	83
742	4	9	84
743	1	9	97
743	2	9	98
743	3	9	99
743	4	9	100
744	1	9	113
744	2	9	114
744	3	9	115
744	4	9	116
745	1	9	129
745	2	9	130
745	3	9	131
745	4	9	132
746	1	9	145
746	2	9	146
746	3	9	147
746	4	9	148
747	1	9	161
747	2	9	162
747	3	9	163
747	4	9	164
748	1	9	177
748	2	9	178
748	3	9	179
748	4	9	180

Matrix Position		Daughter Board	Relay No.
X	Y		
749	1	9	193
749	2	9	194
749	3	9	195
749	4	9	196
750	1	9	209
750	2	9	210
750	3	9	211
750	4	9	212
751	1	9	225
751	2	9	226
751	3	9	227
751	4	9	228
752	1	9	241
752	2	9	242
752	3	9	243
752	4	9	244
753	1	9	257
753	2	9	258
753	3	9	259
753	4	9	260
754	1	9	273
754	2	9	274
754	3	9	275
754	4	9	276
755	1	9	289
755	2	9	290
755	3	9	291
755	4	9	292
756	1	9	305
756	2	9	306
756	3	9	307
756	4	9	308
757	1	9	321
757	2	9	322
757	3	9	323
757	4	9	324
758	1	9	337
758	2	9	338
758	3	9	339
758	4	9	340
759	1	9	353
759	2	9	354
759	3	9	355
759	4	9	356
760	1	9	5
760	2	9	6
760	3	9	7
760	4	9	8

Matrix Position		Daughter Board	Relay No.
X	Y		
761	1	9	21
761	2	9	22
761	3	9	23
761	4	9	24
762	1	9	37
762	2	9	38
762	3	9	39
762	4	9	40
763	1	9	53
763	2	9	54
763	3	9	55
763	4	9	56
764	1	9	69
764	2	9	70
764	3	9	71
764	4	9	72
765	1	9	85
765	2	9	86
765	3	9	87
765	4	9	88
766	1	9	101
766	2	9	102
766	3	9	103
766	4	9	104
767	1	9	117
767	2	9	118
767	3	9	119
767	4	9	120
768	1	9	133
768	2	9	134
768	3	9	135
768	4	9	136
769	1	9	149
769	2	9	150
769	3	9	151
769	4	9	152
770	1	9	165
770	2	9	166
770	3	9	167
770	4	9	168
771	1	9	181
771	2	9	182
771	3	9	183
771	4	9	184
772	1	9	197
772	2	9	198
772	3	9	199
772	4	9	200

Matrix Position		Daughter Board	Relay No.
X	Y		
773	1	9	213
773	2	9	214
773	3	9	215
773	4	9	216
774	1	9	229
774	2	9	230
774	3	9	231
774	4	9	232
775	1	9	245
775	2	9	246
775	3	9	247
775	4	9	248
776	1	9	261
776	2	9	262
776	3	9	263
776	4	9	264
777	1	9	277
777	2	9	278
777	3	9	279
777	4	9	280
778	1	9	293
778	2	9	294
778	3	9	295
778	4	9	296
779	1	9	309
779	2	9	310
779	3	9	311
779	4	9	312
780	1	9	325
780	2	9	326
780	3	9	327
780	4	9	328
781	1	9	341
781	2	9	342
781	3	9	343
781	4	9	344
782	1	9	357
782	2	9	358
782	3	9	359
782	4	9	360
783	1	9	9
783	2	9	10
783	3	9	11
783	4	9	12
784	1	9	25
784	2	9	26
784	3	9	27
784	4	9	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
785	1	9	41
785	2	9	42
785	3	9	43
785	4	9	44
786	1	9	57
786	2	9	58
786	3	9	59
786	4	9	60
787	1	9	73
787	2	9	74
787	3	9	75
787	4	9	76
788	1	9	89
788	2	9	90
788	3	9	91
788	4	9	92
789	1	9	105
789	2	9	106
789	3	9	107
789	4	9	108
790	1	9	121
790	2	9	122
790	3	9	123
790	4	9	124
791	1	9	137
791	2	9	138
791	3	9	139
791	4	9	140
792	1	9	153
792	2	9	154
792	3	9	155
792	4	9	156
793	1	9	169
793	2	9	170
793	3	9	171
793	4	9	172
794	1	9	185
794	2	9	186
794	3	9	187
794	4	9	188
795	1	9	201
795	2	9	202
795	3	9	203
795	4	9	204
796	1	9	217
796	2	9	218
796	3	9	219
796	4	9	220

Matrix Position		Daughter Board	Relay No.
X	Y		
797	1	9	233
797	2	9	234
797	3	9	235
797	4	9	236
798	1	9	249
798	2	9	250
798	3	9	251
798	4	9	252
799	1	9	265
799	2	9	266
799	3	9	267
799	4	9	268
800	1	9	281
800	2	9	282
800	3	9	283
800	4	9	284
801	1	9	297
801	2	9	298
801	3	9	299
801	4	9	300
802	1	9	313
802	2	9	314
802	3	9	315
802	4	9	316
803	1	9	329
803	2	9	330
803	3	9	331
803	4	9	332
804	1	9	345
804	2	9	346
804	3	9	347
804	4	9	348
805	1	9	361
805	2	9	362
805	3	9	363
805	4	9	364
806	1	9	13
806	2	9	14
806	3	9	15
806	4	9	16
807	1	9	29
807	2	9	30
807	3	9	31
807	4	9	32
808	1	9	45
808	2	9	46
808	3	9	47
808	4	9	48

Matrix Position		Daughter Board	Relay No.
X	Y		
809	1	9	61
809	2	9	62
809	3	9	63
809	4	9	64
810	1	9	77
810	2	9	78
810	3	9	79
810	4	9	80
811	1	9	93
811	2	9	94
811	3	9	95
811	4	9	96
812	1	9	109
812	2	9	110
812	3	9	111
812	4	9	112
813	1	9	125
813	2	9	126
813	3	9	127
813	4	9	128
814	1	9	141
814	2	9	142
814	3	9	143
814	4	9	144
815	1	9	157
815	2	9	158
815	3	9	159
815	4	9	160
816	1	9	173
816	2	9	174
816	3	9	175
816	4	9	176
817	1	9	189
817	2	9	190
817	3	9	191
817	4	9	192
818	1	9	205
818	2	9	206
818	3	9	207
818	4	9	208
819	1	9	221
819	2	9	222
819	3	9	223
819	4	9	224
820	1	9	237
820	2	9	238
820	3	9	239
820	4	9	240

Matrix Position		Daughter Board	Relay No.
X	Y		
821	1	9	253
821	2	9	254
821	3	9	255
821	4	9	256
822	1	9	269
822	2	9	270
822	3	9	271
822	4	9	272
823	1	9	285
823	2	9	286
823	3	9	287
823	4	9	288
824	1	9	301
824	2	9	302
824	3	9	303
824	4	9	304
825	1	9	317
825	2	9	318
825	3	9	319
825	4	9	320
826	1	9	333
826	2	9	334
826	3	9	335
826	4	9	336
827	1	9	349
827	2	9	350
827	3	9	351
827	4	9	352
828	1	9	365
828	2	9	366
828	3	9	367
828	4	9	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
829	1	10	1
829	2	10	2
829	3	10	3
829	4	10	4
830	1	10	17
830	2	10	18
830	3	10	19
830	4	10	20
831	1	10	33
831	2	10	34
831	3	10	35
831	4	10	36
832	1	10	49
832	2	10	50
832	3	10	51
832	4	10	52
833	1	10	65
833	2	10	66
833	3	10	67
833	4	10	68
834	1	10	81
834	2	10	82
834	3	10	83
834	4	10	84
835	1	10	97
835	2	10	98
835	3	10	99
835	4	10	100
836	1	10	113
836	2	10	114
836	3	10	115
836	4	10	116
837	1	10	129
837	2	10	130
837	3	10	131
837	4	10	132
838	1	10	145
838	2	10	146
838	3	10	147
838	4	10	148
839	1	10	161
839	2	10	162
839	3	10	163
839	4	10	164
840	1	10	177
840	2	10	178
840	3	10	179
840	4	10	180

Matrix Position		Daughter Board	Relay No.
X	Y		
841	1	10	193
841	2	10	194
841	3	10	195
841	4	10	196
842	1	10	209
842	2	10	210
842	3	10	211
842	4	10	212
843	1	10	225
843	2	10	226
843	3	10	227
843	4	10	228
844	1	10	241
844	2	10	242
844	3	10	243
844	4	10	244
845	1	10	257
845	2	10	258
845	3	10	259
845	4	10	260
846	1	10	273
846	2	10	274
846	3	10	275
846	4	10	276
847	1	10	289
847	2	10	290
847	3	10	291
847	4	10	292
848	1	10	305
848	2	10	306
848	3	10	307
848	4	10	308
849	1	10	321
849	2	10	322
849	3	10	323
849	4	10	324
850	1	10	337
850	2	10	338
850	3	10	339
850	4	10	340
851	1	10	353
851	2	10	354
851	3	10	355
851	4	10	356
852	1	10	5
852	2	10	6
852	3	10	7
852	4	10	8

Matrix Position		Daughter Board	Relay No.
X	Y		
853	1	10	21
853	2	10	22
853	3	10	23
853	4	10	24
854	1	10	37
854	2	10	38
854	3	10	39
854	4	10	40
855	1	10	53
855	2	10	54
855	3	10	55
855	4	10	56
856	1	10	69
856	2	10	70
856	3	10	71
856	4	10	72
857	1	10	85
857	2	10	86
857	3	10	87
857	4	10	88
858	1	10	101
858	2	10	102
858	3	10	103
858	4	10	104
859	1	10	117
859	2	10	118
859	3	10	119
859	4	10	120
860	1	10	133
860	2	10	134
860	3	10	135
860	4	10	136
861	1	10	149
861	2	10	150
861	3	10	151
861	4	10	152
862	1	10	165
862	2	10	166
862	3	10	167
862	4	10	168
863	1	10	181
863	2	10	182
863	3	10	183
863	4	10	184
864	1	10	197
864	2	10	198
864	3	10	199
864	4	10	200

Matrix Position		Daughter Board	Relay No.
X	Y		
865	1	10	213
865	2	10	214
865	3	10	215
865	4	10	216
866	1	10	229
866	2	10	230
866	3	10	231
866	4	10	232
867	1	10	245
867	2	10	246
867	3	10	247
867	4	10	248
868	1	10	261
868	2	10	262
868	3	10	263
868	4	10	264
869	1	10	277
869	2	10	278
869	3	10	279
869	4	10	280
870	1	10	293
870	2	10	294
870	3	10	295
870	4	10	296
871	1	10	309
871	2	10	310
871	3	10	311
871	4	10	312
872	1	10	325
872	2	10	326
872	3	10	327
872	4	10	328
873	1	10	341
873	2	10	342
873	3	10	343
873	4	10	344
874	1	10	357
874	2	10	358
874	3	10	359
874	4	10	360
875	1	10	9
875	2	10	10
875	3	10	11
875	4	10	12
876	1	10	25
876	2	10	26
876	3	10	27
876	4	10	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
877	1	10	41
877	2	10	42
877	3	10	43
877	4	10	44
878	1	10	57
878	2	10	58
878	3	10	59
878	4	10	60
879	1	10	73
879	2	10	74
879	3	10	75
879	4	10	76
880	1	10	89
880	2	10	90
880	3	10	91
880	4	10	92
881	1	10	105
881	2	10	106
881	3	10	107
881	4	10	108
882	1	10	121
882	2	10	122
882	3	10	123
882	4	10	124
883	1	10	137
883	2	10	138
883	3	10	139
883	4	10	140
884	1	10	153
884	2	10	154
884	3	10	155
884	4	10	156
885	1	10	169
885	2	10	170
885	3	10	171
885	4	10	172
886	1	10	185
886	2	10	186
886	3	10	187
886	4	10	188
887	1	10	201
887	2	10	202
887	3	10	203
887	4	10	204
888	1	10	217
888	2	10	218
888	3	10	219
888	4	10	220

Matrix Position		Daughter Board	Relay No.
X	Y		
889	1	10	233
889	2	10	234
889	3	10	235
889	4	10	236
890	1	10	249
890	2	10	250
890	3	10	251
890	4	10	252
891	1	10	265
891	2	10	266
891	3	10	267
891	4	10	268
892	1	10	281
892	2	10	282
892	3	10	283
892	4	10	284
893	1	10	297
893	2	10	298
893	3	10	299
893	4	10	300
894	1	10	313
894	2	10	314
894	3	10	315
894	4	10	316
895	1	10	329
895	2	10	330
895	3	10	331
895	4	10	332
896	1	10	345
896	2	10	346
896	3	10	347
896	4	10	348
897	1	10	361
897	2	10	362
897	3	10	363
897	4	10	364
898	1	10	13
898	2	10	14
898	3	10	15
898	4	10	16
899	1	10	29
899	2	10	30
899	3	10	31
899	4	10	32
900	1	10	45
900	2	10	46
900	3	10	47
900	4	10	48

Matrix Position		Daughter Board	Relay No.
X	Y		
901	1	10	61
901	2	10	62
901	3	10	63
901	4	10	64
902	1	10	77
902	2	10	78
902	3	10	79
902	4	10	80
903	1	10	93
903	2	10	94
903	3	10	95
903	4	10	96
904	1	10	109
904	2	10	110
904	3	10	111
904	4	10	112
905	1	10	125
905	2	10	126
905	3	10	127
905	4	10	128
906	1	10	141
906	2	10	142
906	3	10	143
906	4	10	144
907	1	10	157
907	2	10	158
907	3	10	159
907	4	10	160
908	1	10	173
908	2	10	174
908	3	10	175
908	4	10	176
909	1	10	189
909	2	10	190
909	3	10	191
909	4	10	192
910	1	10	205
910	2	10	206
910	3	10	207
910	4	10	208
911	1	10	221
911	2	10	222
911	3	10	223
911	4	10	224
912	1	10	237
912	2	10	238
912	3	10	239
912	4	10	240

Matrix Position		Daughter Board	Relay No.
X	Y		
913	1	10	253
913	2	10	254
913	3	10	255
913	4	10	256
914	1	10	269
914	2	10	270
914	3	10	271
914	4	10	272
915	1	10	285
915	2	10	286
915	3	10	287
915	4	10	288
916	1	10	301
916	2	10	302
916	3	10	303
916	4	10	304
917	1	10	317
917	2	10	318
917	3	10	319
917	4	10	320
918	1	10	333
918	2	10	334
918	3	10	335
918	4	10	336
919	1	10	349
919	2	10	350
919	3	10	351
919	4	10	352
920	1	10	365
920	2	10	366
920	3	10	367
920	4	10	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
921	1	11	1
921	2	11	2
921	3	11	3
921	4	11	4
922	1	11	17
922	2	11	18
922	3	11	19
922	4	11	20
923	1	11	33
923	2	11	34
923	3	11	35
923	4	11	36
924	1	11	49
924	2	11	50
924	3	11	51
924	4	11	52
925	1	11	65
925	2	11	66
925	3	11	67
925	4	11	68
926	1	11	81
926	2	11	82
926	3	11	83
926	4	11	84
927	1	11	97
927	2	11	98
927	3	11	99
927	4	11	100
928	1	11	113
928	2	11	114
928	3	11	115
928	4	11	116
929	1	11	129
929	2	11	130
929	3	11	131
929	4	11	132
930	1	11	145
930	2	11	146
930	3	11	147
930	4	11	148
931	1	11	161
931	2	11	162
931	3	11	163
931	4	11	164
932	1	11	177
932	2	11	178
932	3	11	179
932	4	11	180

Matrix Position		Daughter Board	Relay No.
X	Y		
933	1	11	193
933	2	11	194
933	3	11	195
933	4	11	196
934	1	11	209
934	2	11	210
934	3	11	211
934	4	11	212
935	1	11	225
935	2	11	226
935	3	11	227
935	4	11	228
936	1	11	241
936	2	11	242
936	3	11	243
936	4	11	244
937	1	11	257
937	2	11	258
937	3	11	259
937	4	11	260
938	1	11	273
938	2	11	274
938	3	11	275
938	4	11	276
939	1	11	289
939	2	11	290
939	3	11	291
939	4	11	292
940	1	11	305
940	2	11	306
940	3	11	307
940	4	11	308
941	1	11	321
941	2	11	322
941	3	11	323
941	4	11	324
942	1	11	337
942	2	11	338
942	3	11	339
942	4	11	340
943	1	11	353
943	2	11	354
943	3	11	355
943	4	11	356
944	1	11	5
944	2	11	6
944	3	11	7
944	4	11	8

Matrix Position		Daughter Board	Relay No.
X	Y		
945	1	11	21
945	2	11	22
945	3	11	23
945	4	11	24
946	1	11	37
946	2	11	38
946	3	11	39
946	4	11	40
947	1	11	53
947	2	11	54
947	3	11	55
947	4	11	56
948	1	11	69
948	2	11	70
948	3	11	71
948	4	11	72
949	1	11	85
949	2	11	86
949	3	11	87
949	4	11	88
950	1	11	101
950	2	11	102
950	3	11	103
950	4	11	104
951	1	11	117
951	2	11	118
951	3	11	119
951	4	11	120
952	1	11	133
952	2	11	134
952	3	11	135
952	4	11	136
953	1	11	149
953	2	11	150
953	3	11	151
953	4	11	152
954	1	11	165
954	2	11	166
954	3	11	167
954	4	11	168
955	1	11	181
955	2	11	182
955	3	11	183
955	4	11	184
956	1	11	197
956	2	11	198
956	3	11	199
956	4	11	200

Matrix Position		Daughter Board	Relay No.
X	Y		
957	1	11	213
957	2	11	214
957	3	11	215
957	4	11	216
958	1	11	229
958	2	11	230
958	3	11	231
958	4	11	232
959	1	11	245
959	2	11	246
959	3	11	247
959	4	11	248
960	1	11	261
960	2	11	262
960	3	11	263
960	4	11	264
961	1	11	277
961	2	11	278
961	3	11	279
961	4	11	280
962	1	11	293
962	2	11	294
962	3	11	295
962	4	11	296
963	1	11	309
963	2	11	310
963	3	11	311
963	4	11	312
964	1	11	325
964	2	11	326
964	3	11	327
964	4	11	328
965	1	11	341
965	2	11	342
965	3	11	343
965	4	11	344
966	1	11	357
966	2	11	358
966	3	11	359
966	4	11	360
967	1	11	9
967	2	11	10
967	3	11	11
967	4	11	12
968	1	11	25
968	2	11	26
968	3	11	27
968	4	11	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
969	1	11	41
969	2	11	42
969	3	11	43
969	4	11	44
970	1	11	57
970	2	11	58
970	3	11	59
970	4	11	60
971	1	11	73
971	2	11	74
971	3	11	75
971	4	11	76
972	1	11	89
972	2	11	90
972	3	11	91
972	4	11	92
973	1	11	105
973	2	11	106
973	3	11	107
973	4	11	108
974	1	11	121
974	2	11	122
974	3	11	123
974	4	11	124
975	1	11	137
975	2	11	138
975	3	11	139
975	4	11	140
976	1	11	153
976	2	11	154
976	3	11	155
976	4	11	156
977	1	11	169
977	2	11	170
977	3	11	171
977	4	11	172
978	1	11	185
978	2	11	186
978	3	11	187
978	4	11	188
979	1	11	201
979	2	11	202
979	3	11	203
979	4	11	204
980	1	11	217
980	2	11	218
980	3	11	219
980	4	11	220

Matrix Position		Daughter Board	Relay No.
X	Y		
981	1	11	233
981	2	11	234
981	3	11	235
981	4	11	236
982	1	11	249
982	2	11	250
982	3	11	251
982	4	11	252
983	1	11	265
983	2	11	266
983	3	11	267
983	4	11	268
984	1	11	281
984	2	11	282
984	3	11	283
984	4	11	284
985	1	11	297
985	2	11	298
985	3	11	299
985	4	11	300
986	1	11	313
986	2	11	314
986	3	11	315
986	4	11	316
987	1	11	329
987	2	11	330
987	3	11	331
987	4	11	332
988	1	11	345
988	2	11	346
988	3	11	347
988	4	11	348
989	1	11	361
989	2	11	362
989	3	11	363
989	4	11	364
990	1	11	13
990	2	11	14
990	3	11	15
990	4	11	16
991	1	11	29
991	2	11	30
991	3	11	31
991	4	11	32
992	1	11	45
992	2	11	46
992	3	11	47
992	4	11	48

Matrix Position		Daughter Board	Relay No.
X	Y		
993	1	11	61
993	2	11	62
993	3	11	63
993	4	11	64
994	1	11	77
994	2	11	78
994	3	11	79
994	4	11	80
995	1	11	93
995	2	11	94
995	3	11	95
995	4	11	96
996	1	11	109
996	2	11	110
996	3	11	111
996	4	11	112
997	1	11	125
997	2	11	126
997	3	11	127
997	4	11	128
998	1	11	141
998	2	11	142
998	3	11	143
998	4	11	144
999	1	11	157
999	2	11	158
999	3	11	159
999	4	11	160
1000	1	11	173
1000	2	11	174
1000	3	11	175
1000	4	11	176
1001	1	11	189
1001	2	11	190
1001	3	11	191
1001	4	11	192
1002	1	11	205
1002	2	11	206
1002	3	11	207
1002	4	11	208
1003	1	11	221
1003	2	11	222
1003	3	11	223
1003	4	11	224
1004	1	11	237
1004	2	11	238
1004	3	11	239
1004	4	11	240

Matrix Position		Daughter Board	Relay No.
X	Y		
1005	1	11	253
1005	2	11	254
1005	3	11	255
1005	4	11	256
1006	1	11	269
1006	2	11	270
1006	3	11	271
1006	4	11	272
1007	1	11	285
1007	2	11	286
1007	3	11	287
1007	4	11	288
1008	1	11	301
1008	2	11	302
1008	3	11	303
1008	4	11	304
1009	1	11	317
1009	2	11	318
1009	3	11	319
1009	4	11	320
1010	1	11	333
1010	2	11	334
1010	3	11	335
1010	4	11	336
1011	1	11	349
1011	2	11	350
1011	3	11	351
1011	4	11	352
1012	1	11	365
1012	2	11	366
1012	3	11	367
1012	4	11	368

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
1013	1	12	1
1013	2	12	2
1013	3	12	3
1013	4	12	4
1014	1	12	17
1014	2	12	18
1014	3	12	19
1014	4	12	20
1015	1	12	33
1015	2	12	34
1015	3	12	35
1015	4	12	36
1016	1	12	49
1016	2	12	50
1016	3	12	51
1016	4	12	52
1017	1	12	65
1017	2	12	66
1017	3	12	67
1017	4	12	68
1018	1	12	81
1018	2	12	82
1018	3	12	83
1018	4	12	84
1019	1	12	97
1019	2	12	98
1019	3	12	99
1019	4	12	100
1020	1	12	113
1020	2	12	114
1020	3	12	115
1020	4	12	116
1021	1	12	129
1021	2	12	130
1021	3	12	131
1021	4	12	132
1022	1	12	145
1022	2	12	146
1022	3	12	147
1022	4	12	148
1023	1	12	161
1023	2	12	162
1023	3	12	163
1023	4	12	164
1024	1	12	177
1024	2	12	178
1024	3	12	179
1024	4	12	180

Matrix Position		Daughter Board	Relay No.
X	Y		
1025	1	12	193
1025	2	12	194
1025	3	12	195
1025	4	12	196
1026	1	12	209
1026	2	12	210
1026	3	12	211
1026	4	12	212
1027	1	12	225
1027	2	12	226
1027	3	12	227
1027	4	12	228
1028	1	12	241
1028	2	12	242
1028	3	12	243
1028	4	12	244
1029	1	12	257
1029	2	12	258
1029	3	12	259
1029	4	12	260
1030	1	12	273
1030	2	12	274
1030	3	12	275
1030	4	12	276
1031	1	12	289
1031	2	12	290
1031	3	12	291
1031	4	12	292
1032	1	12	305
1032	2	12	306
1032	3	12	307
1032	4	12	308
1033	1	12	321
1033	2	12	322
1033	3	12	323
1033	4	12	324
1034	1	12	337
1034	2	12	338
1034	3	12	339
1034	4	12	340
1035	1	12	353
1035	2	12	354
1035	3	12	355
1035	4	12	356
1036	1	12	5
1036	2	12	6
1036	3	12	7
1036	4	12	8

Matrix Position		Daughter Board	Relay No.
X	Y		
1037	1	12	21
1037	2	12	22
1037	3	12	23
1037	4	12	24
1038	1	12	37
1038	2	12	38
1038	3	12	39
1038	4	12	40
1039	1	12	53
1039	2	12	54
1039	3	12	55
1039	4	12	56
1040	1	12	69
1040	2	12	70
1040	3	12	71
1040	4	12	72
1041	1	12	85
1041	2	12	86
1041	3	12	87
1041	4	12	88
1042	1	12	101
1042	2	12	102
1042	3	12	103
1042	4	12	104
1043	1	12	117
1043	2	12	118
1043	3	12	119
1043	4	12	120
1044	1	12	133
1044	2	12	134
1044	3	12	135
1044	4	12	136
1045	1	12	149
1045	2	12	150
1045	3	12	151
1045	4	12	152
1046	1	12	165
1046	2	12	166
1046	3	12	167
1046	4	12	168
1047	1	12	181
1047	2	12	182
1047	3	12	183
1047	4	12	184
1048	1	12	197
1048	2	12	198
1048	3	12	199
1048	4	12	200

Matrix Position		Daughter Board	Relay No.
X	Y		
1049	1	12	213
1049	2	12	214
1049	3	12	215
1049	4	12	216
1050	1	12	229
1050	2	12	230
1050	3	12	231
1050	4	12	232
1051	1	12	245
1051	2	12	246
1051	3	12	247
1051	4	12	248
1052	1	12	261
1052	2	12	262
1052	3	12	263
1052	4	12	264
1053	1	12	277
1053	2	12	278
1053	3	12	279
1053	4	12	280
1054	1	12	293
1054	2	12	294
1054	3	12	295
1054	4	12	296
1055	1	12	309
1055	2	12	310
1055	3	12	311
1055	4	12	312
1056	1	12	325
1056	2	12	326
1056	3	12	327
1056	4	12	328
1057	1	12	341
1057	2	12	342
1057	3	12	343
1057	4	12	344
1058	1	12	357
1058	2	12	358
1058	3	12	359
1058	4	12	360
1059	1	12	9
1059	2	12	10
1059	3	12	11
1059	4	12	12
1060	1	12	25
1060	2	12	26
1060	3	12	27
1060	4	12	28

TABLE 7.2 - 92x4 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
1061	1	12	41
1061	2	12	42
1061	3	12	43
1061	4	12	44
1062	1	12	57
1062	2	12	58
1062	3	12	59
1062	4	12	60
1063	1	12	73
1063	2	12	74
1063	3	12	75
1063	4	12	76
1064	1	12	89
1064	2	12	90
1064	3	12	91
1064	4	12	92
1065	1	12	105
1065	2	12	106
1065	3	12	107
1065	4	12	108
1066	1	12	121
1066	2	12	122
1066	3	12	123
1066	4	12	124
1067	1	12	137
1067	2	12	138
1067	3	12	139
1067	4	12	140
1068	1	12	153
1068	2	12	154
1068	3	12	155
1068	4	12	156
1069	1	12	169
1069	2	12	170
1069	3	12	171
1069	4	12	172
1070	1	12	185
1070	2	12	186
1070	3	12	187
1070	4	12	188
1071	1	12	201
1071	2	12	202
1071	3	12	203
1071	4	12	204
1072	1	12	217
1072	2	12	218
1072	3	12	219
1072	4	12	220

Matrix Position		Daughter Board	Relay No.
X	Y		
1073	1	12	233
1073	2	12	234
1073	3	12	235
1073	4	12	236
1074	1	12	249
1074	2	12	250
1074	3	12	251
1074	4	12	252
1075	1	12	265
1075	2	12	266
1075	3	12	267
1075	4	12	268
1076	1	12	281
1076	2	12	282
1076	3	12	283
1076	4	12	284
1077	1	12	297
1077	2	12	298
1077	3	12	299
1077	4	12	300
1078	1	12	313
1078	2	12	314
1078	3	12	315
1078	4	12	316
1079	1	12	329
1079	2	12	330
1079	3	12	331
1079	4	12	332
1080	1	12	345
1080	2	12	346
1080	3	12	347
1080	4	12	348
1081	1	12	361
1081	2	12	362
1081	3	12	363
1081	4	12	364
1082	1	12	13
1082	2	12	14
1082	3	12	15
1082	4	12	16
1083	1	12	29
1083	2	12	30
1083	3	12	31
1083	4	12	32
1084	1	12	45
1084	2	12	46
1084	3	12	47
1084	4	12	48

Matrix Position		Daughter Board	Relay No.
X	Y		
1085	1	12	61
1085	2	12	62
1085	3	12	63
1085	4	12	64
1086	1	12	77
1086	2	12	78
1086	3	12	79
1086	4	12	80
1087	1	12	93
1087	2	12	94
1087	3	12	95
1087	4	12	96
1088	1	12	109
1088	2	12	110
1088	3	12	111
1088	4	12	112
1089	1	12	125
1089	2	12	126
1089	3	12	127
1089	4	12	128
1090	1	12	141
1090	2	12	142
1090	3	12	143
1090	4	12	144
1091	1	12	157
1091	2	12	158
1091	3	12	159
1091	4	12	160
1092	1	12	173
1092	2	12	174
1092	3	12	175
1092	4	12	176
1093	1	12	189
1093	2	12	190
1093	3	12	191
1093	4	12	192
1094	1	12	205
1094	2	12	206
1094	3	12	207
1094	4	12	208
1095	1	12	221
1095	2	12	222
1095	3	12	223
1095	4	12	224
1096	1	12	237
1096	2	12	238
1096	3	12	239
1096	4	12	240

Matrix Position		Daughter Board	Relay No.
X	Y		
1097	1	12	253
1097	2	12	254
1097	3	12	255
1097	4	12	256
1098	1	12	269
1098	2	12	270
1098	3	12	271
1098	4	12	272
1099	1	12	285
1099	2	12	286
1099	3	12	287
1099	4	12	288
1100	1	12	301
1100	2	12	302
1100	3	12	303
1100	4	12	304
1101	1	12	317
1101	2	12	318
1101	3	12	319
1101	4	12	320
1102	1	12	333
1102	2	12	334
1102	3	12	335
1102	4	12	336
1103	1	12	349
1103	2	12	350
1103	3	12	351
1103	4	12	352
1104	1	12	365
1104	2	12	366
1104	3	12	367
1104	4	12	368

TABLE 7.3 - 46x8 Daughterboard Isolation Relays Look-Up Table

Matrix Row (Y)	Matrix Col (X)	Daughter Board No.	Daughter Board RL Ref.
1	1 - 46	1	369
1	47 - 92	2	369
1	93 - 138	3	369
1	139 - 184	4	369
1	185 - 230	5	369
1	231 - 276	6	369
2	1 - 46	1	370
2	47 - 92	2	370
2	93 - 138	3	370
2	139 - 184	4	370
2	185 - 230	5	370
2	231 - 276	6	370
3	1 - 46	1	371
3	47 - 92	2	371
3	93 - 138	3	371
3	139 - 184	4	371
3	185 - 230	5	371
3	231 - 276	6	371
4	1 - 46	1	372
4	47 - 92	2	372
4	93 - 138	3	372
4	139 - 184	4	372
4	185 - 230	5	372
4	231 - 276	6	372

Matrix Row (Y)	Matrix Col (X)	Daughter Board No.	Daughter Board RL Ref.
5	1 - 46	1	373
5	47 - 92	2	373
5	93 - 138	3	373
5	139 - 184	4	373
5	185 - 230	5	373
5	231 - 276	6	373
6	1 - 46	1	374
6	47 - 92	2	374
6	93 - 138	3	374
6	139 - 184	4	374
6	185 - 230	5	374
6	231 - 276	6	374
7	1 - 46	1	375
7	47 - 92	2	375
7	93 - 138	3	375
7	139 - 184	4	375
7	185 - 230	5	375
7	231 - 276	6	375
8	1 - 46	1	376
8	47 - 92	2	376
8	93 - 138	3	376
8	139 - 184	4	376
8	185 - 230	5	376
8	231 - 276	6	376

TABLE 7.4 - 46x8-M Daughterboard Isolation Relays Look-Up Table

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	1	369
Y2_A isolation	1	370
Y3_A isolation	1	371
Y4_A isolation	1	372
Y5_A isolation	1	373
Y6_A isolation	1	374
Y7_A isolation	1	375
Y8_A isolation	1	376
Y1_B isolation	1	377
Y2_B isolation	1	378
Y3_B isolation	1	379
Y4_B isolation	1	380
Y5_B isolation	1	381
Y6_B isolation	1	382
Y7_B isolation	1	383
Y8_B isolation	1	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	2	369
Y2_A isolation	2	370
Y3_A isolation	2	371
Y4_A isolation	2	372
Y5_A isolation	2	373
Y6_A isolation	2	374
Y7_A isolation	2	375
Y8_A isolation	2	376
Y1_B isolation	2	377
Y2_B isolation	2	378
Y3_B isolation	2	379
Y4_B isolation	2	380
Y5_B isolation	2	381
Y6_B isolation	2	382
Y7_B isolation	2	383
Y8_B isolation	2	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	3	369
Y2_A isolation	3	370
Y3_A isolation	3	371
Y4_A isolation	3	372
Y5_A isolation	3	373
Y6_A isolation	3	374
Y7_A isolation	3	375
Y8_A isolation	3	376
Y1_B isolation	3	377
Y2_B isolation	3	378
Y3_B isolation	3	379
Y4_B isolation	3	380
Y5_B isolation	3	381
Y6_B isolation	3	382
Y7_B isolation	3	383
Y8_B isolation	3	384

TABLE 7.4 - 46x8-M Daughterboard Isolation Relays Look-Up Table (continued)

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	4	369
Y2_A isolation	4	370
Y3_A isolation	4	371
Y4_A isolation	4	372
Y5_A isolation	4	373
Y6_A isolation	4	374
Y7_A isolation	4	375
Y8_A isolation	4	376
Y1_B isolation	4	377
Y2_B isolation	4	378
Y3_B isolation	4	379
Y4_B isolation	4	380
Y5_B isolation	4	381
Y6_B isolation	4	382
Y7_B isolation	4	383
Y8_B isolation	4	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	5	369
Y2_A isolation	5	370
Y3_A isolation	5	371
Y4_A isolation	5	372
Y5_A isolation	5	373
Y6_A isolation	5	374
Y7_A isolation	5	375
Y8_A isolation	5	376
Y1_B isolation	5	377
Y2_B isolation	5	378
Y3_B isolation	5	379
Y4_B isolation	5	380
Y5_B isolation	5	381
Y6_B isolation	5	382
Y7_B isolation	5	383
Y8_B isolation	5	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	6	369
Y2_A isolation	6	370
Y3_A isolation	6	371
Y4_A isolation	6	372
Y5_A isolation	6	373
Y6_A isolation	6	374
Y7_A isolation	6	375
Y8_A isolation	6	376
Y1_B isolation	6	377
Y2_B isolation	6	378
Y3_B isolation	6	379
Y4_B isolation	6	380
Y5_B isolation	6	381
Y6_B isolation	6	382
Y7_B isolation	6	383
Y8_B isolation	6	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	7	369
Y2_A isolation	7	370
Y3_A isolation	7	371
Y4_A isolation	7	372
Y5_A isolation	7	373
Y6_A isolation	7	374
Y7_A isolation	7	375
Y8_A isolation	7	376
Y1_B isolation	7	377
Y2_B isolation	7	378
Y3_B isolation	7	379
Y4_B isolation	7	380
Y5_B isolation	7	381
Y6_B isolation	7	382
Y7_B isolation	7	383
Y8_B isolation	7	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	8	369
Y2_A isolation	8	370
Y3_A isolation	8	371
Y4_A isolation	8	372
Y5_A isolation	8	373
Y6_A isolation	8	374
Y7_A isolation	8	375
Y8_A isolation	8	376
Y1_B isolation	8	377
Y2_B isolation	8	378
Y3_B isolation	8	379
Y4_B isolation	8	380
Y5_B isolation	8	381
Y6_B isolation	8	382
Y7_B isolation	8	383
Y8_B isolation	8	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	9	369
Y2_A isolation	9	370
Y3_A isolation	9	371
Y4_A isolation	9	372
Y5_A isolation	9	373
Y6_A isolation	9	374
Y7_A isolation	9	375
Y8_A isolation	9	376
Y1_B isolation	9	377
Y2_B isolation	9	378
Y3_B isolation	9	379
Y4_B isolation	9	380
Y5_B isolation	9	381
Y6_B isolation	9	382
Y7_B isolation	9	383
Y8_B isolation	9	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	10	369
Y2_A isolation	10	370
Y3_A isolation	10	371
Y4_A isolation	10	372
Y5_A isolation	10	373
Y6_A isolation	10	374
Y7_A isolation	10	375
Y8_A isolation	10	376
Y1_B isolation	10	377
Y2_B isolation	10	378
Y3_B isolation	10	379
Y4_B isolation	10	380
Y5_B isolation	10	381
Y6_B isolation	10	382
Y7_B isolation	10	383
Y8_B isolation	10	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	11	369
Y2_A isolation	11	370
Y3_A isolation	11	371
Y4_A isolation	11	372
Y5_A isolation	11	373
Y6_A isolation	11	374
Y7_A isolation	11	375
Y8_A isolation	11	376
Y1_B isolation	11	377
Y2_B isolation	11	378
Y3_B isolation	11	379
Y4_B isolation	11	380
Y5_B isolation	11	381
Y6_B isolation	11	382
Y7_B isolation	11	383
Y8_B isolation	11	384

Matrix Position	Daughter Board	Relay No.
Y1_A isolation	12	369
Y2_A isolation	12	370
Y3_A isolation	12	371
Y4_A isolation	12	372
Y5_A isolation	12	373
Y6_A isolation	12	374
Y7_A isolation	12	375
Y8_A isolation	12	376
Y1_B isolation	12	377
Y2_B isolation	12	378
Y3_B isolation	12	379
Y4_B isolation	12	380
Y5_B isolation	12	381
Y6_B isolation	12	382
Y7_B isolation	12	383
Y8_B isolation	12	384

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	1	1	1	1	1	1.1	1
1	2	2	2	1	17	1.1	2
1	3	3	3	1	33	1.1	3
1	4	4	4	1	49	1.1	4
1	5	5	5	1	65	1.1	5
1	6	6	6	1	81	1.1	6
1	7	7	7	1	97	1.1	7
1	8	8	8	1	113	1.1	8
1	9	9	9	1	129	1.1	9
1	10	10	10	1	145	1.1	10
1	11	11	11	1	161	1.1	11
1	12	12	12	1	177	1.1	12
1	13	13	13	1	193	1.1	13
1	14	14	14	1	209	1.1	14
1	15	15	15	1	225	1.1	15
1	16	16	16	1	241	1.1	16
1	17	17	17	1	257	1.1	17
1	18	18	18	1	273	1.1	18
1	19	19	19	1	289	1.1	19
1	20	20	20	1	305	1.1	20
1	21	21	21	1	321	1.1	21
1	22	22	22	1	337	1.1	22
1	23	23	23	1	353	1.1	23
1	24	24	24	1	2	1.2	1
1	25	25	25	1	18	1.2	2
1	26	26	26	1	34	1.2	3
1	27	27	27	1	50	1.2	4
1	28	28	28	1	66	1.2	5
1	29	29	29	1	82	1.2	6
1	30	30	30	1	98	1.2	7
1	31	31	31	1	114	1.2	8
1	32	32	32	1	130	1.2	9
1	33	33	33	1	146	1.2	10
1	34	34	34	1	162	1.2	11
1	35	35	35	1	178	1.2	12
1	36	36	36	1	194	1.2	13
1	37	37	37	1	210	1.2	14
1	38	38	38	1	226	1.2	15
1	39	39	39	1	242	1.2	16
1	40	40	40	1	258	1.2	17
1	41	41	41	1	274	1.2	18
1	42	42	42	1	290	1.2	19
1	43	43	43	1	306	1.2	20
1	44	44	44	1	322	1.2	21
1	45	45	45	1	338	1.2	22
1	46	46	46	1	354	1.2	23
1	47	47	47	2	1	1.1	1
1	48	48	48	2	17	1.1	2
1	49	49	49	2	33	1.1	3
1	50	50	50	2	49	1.1	4
1	51	51	51	2	65	1.1	5
1	52	52	52	2	81	1.1	6
1	53	53	53	2	97	1.1	7
1	54	54	54	2	113	1.1	8
1	55	55	55	2	129	1.1	9
1	56	56	56	2	145	1.1	10
1	57	57	57	2	161	1.1	11
1	58	58	58	2	177	1.1	12
1	59	59	59	2	193	1.1	13
1	60	60	60	2	209	1.1	14
1	61	61	61	2	225	1.1	15
1	62	62	62	2	241	1.1	16
1	63	63	63	2	257	1.1	17
1	64	64	64	2	273	1.1	18
1	65	65	65	2	289	1.1	19
1	66	66	66	2	305	1.1	20
1	67	67	67	2	321	1.1	21
1	68	68	68	2	337	1.1	22
1	69	69	69	2	353	1.1	23
1	70	70	70	2	2	1.2	1
1	71	71	71	2	18	1.2	2
1	72	72	72	2	34	1.2	3
1	73	73	73	2	50	1.2	4
1	74	74	74	2	66	1.2	5
1	75	75	75	2	82	1.2	6
1	76	76	76	2	98	1.2	7
1	77	77	77	2	114	1.2	8
1	78	78	78	2	130	1.2	9
1	79	79	79	2	146	1.2	10
1	80	80	80	2	162	1.2	11
1	81	81	81	2	178	1.2	12
1	82	82	82	2	194	1.2	13
1	83	83	83	2	210	1.2	14
1	84	84	84	2	226	1.2	15
1	85	85	85	2	242	1.2	16
1	86	86	86	2	258	1.2	17
1	87	87	87	2	274	1.2	18
1	88	88	88	2	290	1.2	19

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	89	89	89	2	306	1.2	20
1	90	90	90	2	322	1.2	21
1	91	91	91	2	338	1.2	22
1	92	92	92	2	354	1.2	23
1	93	93	93	3	1	1.1	1
1	94	94	94	3	17	1.1	2
1	95	95	95	3	33	1.1	3
1	96	96	96	3	49	1.1	4
1	97	97	97	3	65	1.1	5
1	98	98	98	3	81	1.1	6
1	99	99	99	3	97	1.1	7
1	100	100	100	3	113	1.1	8
1	101	101	101	3	129	1.1	9
1	102	102	102	3	145	1.1	10
1	103	103	103	3	161	1.1	11
1	104	104	104	3	177	1.1	12
1	105	105	105	3	193	1.1	13
1	106	106	106	3	209	1.1	14
1	107	107	107	3	225	1.1	15
1	108	108	108	3	241	1.1	16
1	109	109	109	3	257	1.1	17
1	110	110	110	3	273	1.1	18
1	111	111	111	3	289	1.1	19
1	112	112	112	3	305	1.1	20
1	113	113	113	3	321	1.1	21
1	114	114	114	3	337	1.1	22
1	115	115	115	3	353	1.1	23
1	116	116	116	3	2	1.2	1
1	117	117	117	3	18	1.2	2
1	118	118	118	3	34	1.2	3
1	119	119	119	3	50	1.2	4
1	120	120	120	3	66	1.2	5
1	121	121	121	3	82	1.2	6
1	122	122	122	3	98	1.2	7
1	123	123	123	3	114	1.2	8
1	124	124	124	3	130	1.2	9
1	125	125	125	3	146	1.2	10
1	126	126	126	3	162	1.2	11
1	127	127	127	3	178	1.2	12
1	128	128	128	3	194	1.2	13
1	129	129	129	3	210	1.2	14
1	130	130	130	3	226	1.2	15
1	131	131	131	3	242	1.2	16
1	132	132	132	3	258	1.2	17

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	133	133	133	3	274	1.2	18
1	134	134	134	3	290	1.2	19
1	135	135	135	3	306	1.2	20
1	136	136	136	3	322	1.2	21
1	137	137	137	3	338	1.2	22
1	138	138	138	3	354	1.2	23
1	139	139	139	4	1	1.1	1
1	140	140	140	4	17	1.1	2
1	141	141	141	4	33	1.1	3
1	142	142	142	4	49	1.1	4
1	143	143	143	4	65	1.1	5
1	144	144	144	4	81	1.1	6
1	145	145	145	4	97	1.1	7
1	146	146	146	4	113	1.1	8
1	147	147	147	4	129	1.1	9
1	148	148	148	4	145	1.1	10
1	149	149	149	4	161	1.1	11
1	150	150	150	4	177	1.1	12
1	151	151	151	4	193	1.1	13
1	152	152	152	4	209	1.1	14
1	153	153	153	4	225	1.1	15
1	154	154	154	4	241	1.1	16
1	155	155	155	4	257	1.1	17
1	156	156	156	4	273	1.1	18
1	157	157	157	4	289	1.1	19
1	158	158	158	4	305	1.1	20
1	159	159	159	4	321	1.1	21
1	160	160	160	4	337	1.1	22
1	161	161	161	4	353	1.1	23
1	162	162	162	4	2	1.2	1
1	163	163	163	4	18	1.2	2
1	164	164	164	4	34	1.2	3
1	165	165	165	4	50	1.2	4
1	166	166	166	4	66	1.2	5
1	167	167	167	4	82	1.2	6
1	168	168	168	4	98	1.2	7
1	169	169	169	4	114	1.2	8
1	170	170	170	4	130	1.2	9
1	171	171	171	4	146	1.2	10
1	172	172	172	4	162	1.2	11
1	173	173	173	4	178	1.2	12
1	174	174	174	4	194	1.2	13
1	175	175	175	4	210	1.2	14
1	176	176	176	4	226	1.2	15

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	177	177	177	4	242	1.2	16
1	178	178	178	4	258	1.2	17
1	179	179	179	4	274	1.2	18
1	180	180	180	4	290	1.2	19
1	181	181	181	4	306	1.2	20
1	182	182	182	4	322	1.2	21
1	183	183	183	4	338	1.2	22
1	184	184	184	4	354	1.2	23
1	185	185	185	5	1	1.1	1
1	186	186	186	5	17	1.1	2
1	187	187	187	5	33	1.1	3
1	188	188	188	5	49	1.1	4
1	189	189	189	5	65	1.1	5
1	190	190	190	5	81	1.1	6
1	191	191	191	5	97	1.1	7
1	192	192	192	5	113	1.1	8
1	193	193	193	5	129	1.1	9
1	194	194	194	5	145	1.1	10
1	195	195	195	5	161	1.1	11
1	196	196	196	5	177	1.1	12
1	197	197	197	5	193	1.1	13
1	198	198	198	5	209	1.1	14
1	199	199	199	5	225	1.1	15
1	200	200	200	5	241	1.1	16
1	201	201	201	5	257	1.1	17
1	202	202	202	5	273	1.1	18
1	203	203	203	5	289	1.1	19
1	204	204	204	5	305	1.1	20
1	205	205	205	5	321	1.1	21
1	206	206	206	5	337	1.1	22
1	207	207	207	5	353	1.1	23
1	208	208	208	5	2	1.2	1
1	209	209	209	5	18	1.2	2
1	210	210	210	5	34	1.2	3
1	211	211	211	5	50	1.2	4
1	212	212	212	5	66	1.2	5
1	213	213	213	5	82	1.2	6
1	214	214	214	5	98	1.2	7
1	215	215	215	5	114	1.2	8
1	216	216	216	5	130	1.2	9
1	217	217	217	5	146	1.2	10
1	218	218	218	5	162	1.2	11
1	219	219	219	5	178	1.2	12

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	220	220	220	5	194	1.2	13
1	221	221	221	5	210	1.2	14
1	222	222	222	5	226	1.2	15
1	223	223	223	5	242	1.2	16
1	224	224	224	5	258	1.2	17
1	225	225	225	5	274	1.2	18
1	226	226	226	5	290	1.2	19
1	227	227	227	5	306	1.2	20
1	228	228	228	5	322	1.2	21
1	229	229	229	5	338	1.2	22
1	230	230	230	5	354	1.2	23
1	231	231	231	6	1	1.1	1
1	232	232	232	6	17	1.1	2
1	233	233	233	6	33	1.1	3
1	234	234	234	6	49	1.1	4
1	235	235	235	6	65	1.1	5
1	236	236	236	6	81	1.1	6
1	237	237	237	6	97	1.1	7
1	238	238	238	6	113	1.1	8
1	239	239	239	6	129	1.1	9
1	240	240	240	6	145	1.1	10
1	241	241	241	6	161	1.1	11
1	242	242	242	6	177	1.1	12
1	243	243	243	6	193	1.1	13
1	244	244	244	6	209	1.1	14
1	245	245	245	6	225	1.1	15
1	246	246	246	6	241	1.1	16
1	247	247	247	6	257	1.1	17
1	248	248	248	6	273	1.1	18
1	249	249	249	6	289	1.1	19
1	250	250	250	6	305	1.1	20
1	251	251	251	6	321	1.1	21
1	252	252	252	6	337	1.1	22
1	253	253	253	6	353	1.1	23
1	254	254	254	6	2	1.2	1
1	255	255	255	6	18	1.2	2
1	256	256	256	6	34	1.2	3
1	257	257	257	6	50	1.2	4
1	258	258	258	6	66	1.2	5
1	259	259	259	6	82	1.2	6
1	260	260	260	6	98	1.2	7
1	261	261	261	6	114	1.2	8
1	262	262	262	6	130	1.2	9

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	263	263	263	6	146	1.2	10
1	264	264	264	6	162	1.2	11
1	265	265	265	6	178	1.2	12
1	266	266	266	6	194	1.2	13
1	267	267	267	6	210	1.2	14
1	268	268	268	6	226	1.2	15
1	269	269	269	6	242	1.2	16
1	270	270	270	6	258	1.2	17
1	271	271	271	6	274	1.2	18
1	272	272	272	6	290	1.2	19
1	273	273	273	6	306	1.2	20
1	274	274	274	6	322	1.2	21
1	275	275	275	6	338	1.2	22
1	276	276	276	6	354	1.2	23
1	277	-	277	7	1	1.1	1
1	278	-	278	7	17	1.1	2
1	279	-	279	7	33	1.1	3
1	280	-	280	7	49	1.1	4
1	281	-	281	7	65	1.1	5
1	282	-	282	7	81	1.1	6
1	283	-	283	7	97	1.1	7
1	284	-	284	7	113	1.1	8
1	285	-	285	7	129	1.1	9
1	286	-	286	7	145	1.1	10
1	287	-	287	7	161	1.1	11
1	288	-	288	7	177	1.1	12
1	289	-	289	7	193	1.1	13
1	290	-	290	7	209	1.1	14
1	291	-	291	7	225	1.1	15
1	292	-	292	7	241	1.1	16
1	293	-	293	7	257	1.1	17
1	294	-	294	7	273	1.1	18
1	295	-	295	7	289	1.1	19
1	296	-	296	7	305	1.1	20
1	297	-	297	7	321	1.1	21
1	298	-	298	7	337	1.1	22
1	299	-	299	7	353	1.1	23
1	300	-	300	7	2	1.2	1
1	301	-	301	7	18	1.2	2
1	302	-	302	7	34	1.2	3
1	303	-	303	7	50	1.2	4
1	304	-	304	7	66	1.2	5
1	305	-	305	7	82	1.2	6

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	306	-	306	7	98	1.2	7
1	307	-	307	7	114	1.2	8
1	308	-	308	7	130	1.2	9
1	309	-	309	7	146	1.2	10
1	310	-	310	7	162	1.2	11
1	311	-	311	7	178	1.2	12
1	312	-	312	7	194	1.2	13
1	313	-	313	7	210	1.2	14
1	314	-	314	7	226	1.2	15
1	315	-	315	7	242	1.2	16
1	316	-	316	7	258	1.2	17
1	317	-	317	7	274	1.2	18
1	318	-	318	7	290	1.2	19
1	319	-	319	7	306	1.2	20
1	320	-	320	7	322	1.2	21
1	321	-	321	7	338	1.2	22
1	322	-	322	7	354	1.2	23
1	323	-	323	8	1	1.1	1
1	324	-	324	8	17	1.1	2
1	325	-	325	8	33	1.1	3
1	326	-	326	8	49	1.1	4
1	327	-	327	8	65	1.1	5
1	328	-	328	8	81	1.1	6
1	329	-	329	8	97	1.1	7
1	330	-	330	8	113	1.1	8
1	331	-	331	8	129	1.1	9
1	332	-	332	8	145	1.1	10
1	333	-	333	8	161	1.1	11
1	334	-	334	8	177	1.1	12
1	335	-	335	8	193	1.1	13
1	336	-	336	8	209	1.1	14
1	337	-	337	8	225	1.1	15
1	338	-	338	8	241	1.1	16
1	339	-	339	8	257	1.1	17
1	340	-	340	8	273	1.1	18
1	341	-	341	8	289	1.1	19
1	342	-	342	8	305	1.1	20
1	343	-	343	8	321	1.1	21
1	344	-	344	8	337	1.1	22
1	345	-	345	8	353	1.1	23
1	346	-	346	8	2	1.2	1
1	347	-	347	8	18	1.2	2
1	348	-	348	8	34	1.2	3

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	349	-	349	8	50	1.2	4
1	350	-	350	8	66	1.2	5
1	351	-	351	8	82	1.2	6
1	352	-	352	8	98	1.2	7
1	353	-	353	8	114	1.2	8
1	354	-	354	8	130	1.2	9
1	355	-	355	8	146	1.2	10
1	356	-	356	8	162	1.2	11
1	357	-	357	8	178	1.2	12
1	358	-	358	8	194	1.2	13
1	359	-	359	8	210	1.2	14
1	360	-	360	8	226	1.2	15
1	361	-	361	8	242	1.2	16
1	362	-	362	8	258	1.2	17
1	363	-	363	8	274	1.2	18
1	364	-	364	8	290	1.2	19
1	365	-	365	8	306	1.2	20
1	366	-	366	8	322	1.2	21
1	367	-	367	8	338	1.2	22
1	368	-	368	8	354	1.2	23
1	369	-	369	9	1	1.1	1
1	370	-	370	9	17	1.1	2
1	371	-	371	9	33	1.1	3
1	372	-	372	9	49	1.1	4
1	373	-	373	9	65	1.1	5
1	374	-	374	9	81	1.1	6
1	375	-	375	9	97	1.1	7
1	376	-	376	9	113	1.1	8
1	377	-	377	9	129	1.1	9
1	378	-	378	9	145	1.1	10
1	379	-	379	9	161	1.1	11
1	380	-	380	9	177	1.1	12
1	381	-	381	9	193	1.1	13
1	382	-	382	9	209	1.1	14
1	383	-	383	9	225	1.1	15
1	384	-	384	9	241	1.1	16
1	385	-	385	9	257	1.1	17
1	386	-	386	9	273	1.1	18
1	387	-	387	9	289	1.1	19
1	388	-	388	9	305	1.1	20
1	389	-	389	9	321	1.1	21
1	390	-	390	9	337	1.1	22
1	391	-	391	9	353	1.1	23
1	392	-	392	9	2	1.2	1

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	393	-	393	9	18	1.2	2
1	394	-	394	9	34	1.2	3
1	395	-	395	9	50	1.2	4
1	396	-	396	9	66	1.2	5
1	397	-	397	9	82	1.2	6
1	398	-	398	9	98	1.2	7
1	399	-	399	9	114	1.2	8
1	400	-	400	9	130	1.2	9
1	401	-	401	9	146	1.2	10
1	402	-	402	9	162	1.2	11
1	403	-	403	9	178	1.2	12
1	404	-	404	9	194	1.2	13
1	405	-	405	9	210	1.2	14
1	406	-	406	9	226	1.2	15
1	407	-	407	9	242	1.2	16
1	408	-	408	9	258	1.2	17
1	409	-	409	9	274	1.2	18
1	410	-	410	9	290	1.2	19
1	411	-	411	9	306	1.2	20
1	412	-	412	9	322	1.2	21
1	413	-	413	9	338	1.2	22
1	414	-	414	9	354	1.2	23
1	415	-	415	10	1	1.1	1
1	416	-	416	10	17	1.1	2
1	417	-	417	10	33	1.1	3
1	418	-	418	10	49	1.1	4
1	419	-	419	10	65	1.1	5
1	420	-	420	10	81	1.1	6
1	421	-	421	10	97	1.1	7
1	422	-	422	10	113	1.1	8
1	423	-	423	10	129	1.1	9
1	424	-	424	10	145	1.1	10
1	425	-	425	10	161	1.1	11
1	426	-	426	10	177	1.1	12
1	427	-	427	10	193	1.1	13
1	428	-	428	10	209	1.1	14
1	429	-	429	10	225	1.1	15
1	430	-	430	10	241	1.1	16
1	431	-	431	10	257	1.1	17
1	432	-	432	10	273	1.1	18
1	433	-	433	10	289	1.1	19
1	434	-	434	10	305	1.1	20
1	435	-	435	10	321	1.1	21
1	436	-	436	10	337	1.1	22

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	437	-	437	10	353	1.1	23
1	438	-	438	10	2	1.2	1
1	439	-	439	10	18	1.2	2
1	440	-	440	10	34	1.2	3
1	441	-	441	10	50	1.2	4
1	442	-	442	10	66	1.2	5
1	443	-	443	10	82	1.2	6
1	444	-	444	10	98	1.2	7
1	445	-	445	10	114	1.2	8
1	446	-	446	10	130	1.2	9
1	447	-	447	10	146	1.2	10
1	448	-	448	10	162	1.2	11
1	449	-	449	10	178	1.2	12
1	450	-	450	10	194	1.2	13
1	451	-	451	10	210	1.2	14
1	452	-	452	10	226	1.2	15
1	453	-	453	10	242	1.2	16
1	454	-	454	10	258	1.2	17
1	455	-	455	10	274	1.2	18
1	456	-	456	10	290	1.2	19
1	457	-	457	10	306	1.2	20
1	458	-	458	10	322	1.2	21
1	459	-	459	10	338	1.2	22
1	460	-	460	10	354	1.2	23
1	461	-	461	11	1	1.1	1
1	462	-	462	11	17	1.1	2
1	463	-	463	11	33	1.1	3
1	464	-	464	11	49	1.1	4
1	465	-	465	11	65	1.1	5
1	466	-	466	11	81	1.1	6
1	467	-	467	11	97	1.1	7
1	468	-	468	11	113	1.1	8
1	469	-	469	11	129	1.1	9
1	470	-	470	11	145	1.1	10
1	471	-	471	11	161	1.1	11
1	472	-	472	11	177	1.1	12
1	473	-	473	11	193	1.1	13
1	474	-	474	11	209	1.1	14
1	475	-	475	11	225	1.1	15
1	476	-	476	11	241	1.1	16
1	477	-	477	11	257	1.1	17
1	478	-	478	11	273	1.1	18
1	479	-	479	11	289	1.1	19
1	480	-	480	11	305	1.1	20

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	481	-	481	11	321	1.1	21
1	482	-	482	11	337	1.1	22
1	483	-	483	11	353	1.1	23
1	484	-	484	11	2	1.2	1
1	485	-	485	11	18	1.2	2
1	486	-	486	11	34	1.2	3
1	487	-	487	11	50	1.2	4
1	488	-	488	11	66	1.2	5
1	489	-	489	11	82	1.2	6
1	490	-	490	11	98	1.2	7
1	491	-	491	11	114	1.2	8
1	492	-	492	11	130	1.2	9
1	493	-	493	11	146	1.2	10
1	494	-	494	11	162	1.2	11
1	495	-	495	11	178	1.2	12
1	496	-	496	11	194	1.2	13
1	497	-	497	11	210	1.2	14
1	498	-	498	11	226	1.2	15
1	499	-	499	11	242	1.2	16
1	500	-	500	11	258	1.2	17
1	501	-	501	11	274	1.2	18
1	502	-	502	11	290	1.2	19
1	503	-	503	11	306	1.2	20
1	504	-	504	11	322	1.2	21
1	505	-	505	11	338	1.2	22
1	506	-	506	11	354	1.2	23
1	507	-	507	12	1	1.1	1
1	508	-	508	12	17	1.1	2
1	509	-	509	12	33	1.1	3
1	510	-	510	12	49	1.1	4
1	511	-	511	12	65	1.1	5
1	512	-	512	12	81	1.1	6
1	513	-	513	12	97	1.1	7
1	514	-	514	12	113	1.1	8
1	515	-	515	12	129	1.1	9
1	516	-	516	12	145	1.1	10
1	517	-	517	12	161	1.1	11
1	518	-	518	12	177	1.1	12
1	519	-	519	12	193	1.1	13
1	520	-	520	12	209	1.1	14
1	521	-	521	12	225	1.1	15
1	522	-	522	12	241	1.1	16
1	523	-	523	12	257	1.1	17
1	524	-	524	12	273	1.1	18

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
1	525	-	525	12	289	1.1	19
1	526	-	526	12	305	1.1	20
1	527	-	527	12	321	1.1	21
1	528	-	528	12	337	1.1	22
1	529	-	529	12	353	1.1	23
1	530	-	530	12	2	1.2	1
1	531	-	531	12	18	1.2	2
1	532	-	532	12	34	1.2	3
1	533	-	533	12	50	1.2	4
1	534	-	534	12	66	1.2	5
1	535	-	535	12	82	1.2	6
1	536	-	536	12	98	1.2	7
1	537	-	537	12	114	1.2	8
1	538	-	538	12	130	1.2	9
1	539	-	539	12	146	1.2	10
1	540	-	540	12	162	1.2	11
1	541	-	541	12	178	1.2	12
1	542	-	542	12	194	1.2	13
1	543	-	543	12	210	1.2	14
1	544	-	544	12	226	1.2	15
1	545	-	545	12	242	1.2	16
1	546	-	546	12	258	1.2	17
1	547	-	547	12	274	1.2	18
1	548	-	548	12	290	1.2	19
1	549	-	549	12	306	1.2	20
1	550	-	550	12	322	1.2	21
1	551	-	551	12	338	1.2	22
1	552	-	552	12	354	1.2	23
2	1	277	553	1	3	2.1	1
2	2	278	554	1	19	2.1	2
2	3	279	555	1	35	2.1	3
2	4	280	556	1	51	2.1	4
2	5	281	557	1	67	2.1	5
2	6	282	558	1	83	2.1	6
2	7	283	559	1	99	2.1	7
2	8	284	560	1	115	2.1	8
2	9	285	561	1	131	2.1	9
2	10	286	562	1	147	2.1	10
2	11	287	563	1	163	2.1	11
2	12	288	564	1	179	2.1	12
2	13	289	565	1	195	2.1	13
2	14	290	566	1	211	2.1	14
2	15	291	567	1	227	2.1	15
2	16	292	568	1	243	2.1	16

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	17	293	569	1	259	2.1	17
2	18	294	570	1	275	2.1	18
2	19	295	571	1	291	2.1	19
2	20	296	572	1	307	2.1	20
2	21	297	573	1	323	2.1	21
2	22	298	574	1	339	2.1	22
2	23	299	575	1	355	2.1	23
2	24	300	576	1	4	2.2	1
2	25	301	577	1	20	2.2	2
2	26	302	578	1	36	2.2	3
2	27	303	579	1	52	2.2	4
2	28	304	580	1	68	2.2	5
2	29	305	581	1	84	2.2	6
2	30	306	582	1	100	2.2	7
2	31	307	583	1	116	2.2	8
2	32	308	584	1	132	2.2	9
2	33	309	585	1	148	2.2	10
2	34	310	586	1	164	2.2	11
2	35	311	587	1	180	2.2	12
2	36	312	588	1	196	2.2	13
2	37	313	589	1	212	2.2	14
2	38	314	590	1	228	2.2	15
2	39	315	591	1	244	2.2	16
2	40	316	592	1	260	2.2	17
2	41	317	593	1	276	2.2	18
2	42	318	594	1	292	2.2	19
2	43	319	595	1	308	2.2	20
2	44	320	596	1	324	2.2	21
2	45	321	597	1	340	2.2	22
2	46	322	598	1	356	2.2	23
2	47	323	599	2	3	2.1	1
2	48	324	600	2	19	2.1	2
2	49	325	601	2	35	2.1	3
2	50	326	602	2	51	2.1	4
2	51	327	603	2	67	2.1	5
2	52	328	604	2	83	2.1	6
2	53	329	605	2	99	2.1	7
2	54	330	606	2	115	2.1	8
2	55	331	607	2	131	2.1	9
2	56	332	608	2	147	2.1	10
2	57	333	609	2	163	2.1	11
2	58	334	610	2	179	2.1	12
2	59	335	611	2	195	2.1	13
2	60	336	612	2	211	2.1	14

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	61	337	613	2	227	2.1	15
2	62	338	614	2	243	2.1	16
2	63	339	615	2	259	2.1	17
2	64	340	616	2	275	2.1	18
2	65	341	617	2	291	2.1	19
2	66	342	618	2	307	2.1	20
2	67	343	619	2	323	2.1	21
2	68	344	620	2	339	2.1	22
2	69	345	621	2	355	2.1	23
2	70	346	622	2	4	2.2	1
2	71	347	623	2	20	2.2	2
2	72	348	624	2	36	2.2	3
2	73	349	625	2	52	2.2	4
2	74	350	626	2	68	2.2	5
2	75	351	627	2	84	2.2	6
2	76	352	628	2	100	2.2	7
2	77	353	629	2	116	2.2	8
2	78	354	630	2	132	2.2	9
2	79	355	631	2	148	2.2	10
2	80	356	632	2	164	2.2	11
2	81	357	633	2	180	2.2	12
2	82	358	634	2	196	2.2	13
2	83	359	635	2	212	2.2	14
2	84	360	636	2	228	2.2	15
2	85	361	637	2	244	2.2	16
2	86	362	638	2	260	2.2	17
2	87	363	639	2	276	2.2	18
2	88	364	640	2	292	2.2	19
2	89	365	641	2	308	2.2	20
2	90	366	642	2	324	2.2	21
2	91	367	643	2	340	2.2	22
2	92	368	644	2	356	2.2	23
2	93	369	645	3	3	2.1	1
2	94	370	646	3	19	2.1	2
2	95	371	647	3	35	2.1	3
2	96	372	648	3	51	2.1	4
2	97	373	649	3	67	2.1	5
2	98	374	650	3	83	2.1	6
2	99	375	651	3	99	2.1	7
2	100	376	652	3	115	2.1	8
2	101	377	653	3	131	2.1	9
2	102	378	654	3	147	2.1	10
2	103	379	655	3	163	2.1	11
2	104	380	656	3	179	2.1	12
2	105	381	657	3	195	2.1	13
2	106	382	658	3	211	2.1	14
2	107	383	659	3	227	2.1	15
2	108	384	660	3	243	2.1	16
2	109	385	661	3	259	2.1	17
2	110	386	662	3	275	2.1	18
2	111	387	663	3	291	2.1	19
2	112	388	664	3	307	2.1	20
2	113	389	665	3	323	2.1	21
2	114	390	666	3	339	2.1	22
2	115	391	667	3	355	2.1	23
2	116	392	668	3	4	2.2	1
2	117	393	669	3	20	2.2	2
2	118	394	670	3	36	2.2	3
2	119	395	671	3	52	2.2	4
2	120	396	672	3	68	2.2	5
2	121	397	673	3	84	2.2	6
2	122	398	674	3	100	2.2	7
2	123	399	675	3	116	2.2	8
2	124	400	676	3	132	2.2	9
2	125	401	677	3	148	2.2	10
2	126	402	678	3	164	2.2	11
2	127	403	679	3	180	2.2	12
2	128	404	680	3	196	2.2	13
2	129	405	681	3	212	2.2	14
2	130	406	682	3	228	2.2	15
2	131	407	683	3	244	2.2	16
2	132	408	684	3	260	2.2	17
2	133	409	685	3	276	2.2	18
2	134	410	686	3	292	2.2	19
2	135	411	687	3	308	2.2	20
2	136	412	688	3	324	2.2	21
2	137	413	689	3	340	2.2	22
2	138	414	690	3	356	2.2	23
2	139	415	691	4	3	2.1	1
2	140	416	692	4	19	2.1	2
2	141	417	693	4	35	2.1	3
2	142	418	694	4	51	2.1	4
2	143	419	695	4	67	2.1	5
2	144	420	696	4	83	2.1	6
2	145	421	697	4	99	2.1	7
2	146	422	698	4	115	2.1	8
2	147	423	699	4	131	2.1	9
2	148	424	700	4	147	2.1	10

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	149	425	701	4	163	2.1	11
2	150	426	702	4	179	2.1	12
2	151	427	703	4	195	2.1	13
2	152	428	704	4	211	2.1	14
2	153	429	705	4	227	2.1	15
2	154	430	706	4	243	2.1	16
2	155	431	707	4	259	2.1	17
2	156	432	708	4	275	2.1	18
2	157	433	709	4	291	2.1	19
2	158	434	710	4	307	2.1	20
2	159	435	711	4	323	2.1	21
2	160	436	712	4	339	2.1	22
2	161	437	713	4	355	2.1	23
2	162	438	714	4	4	2.2	1
2	163	439	715	4	20	2.2	2
2	164	440	716	4	36	2.2	3
2	165	441	717	4	52	2.2	4
2	166	442	718	4	68	2.2	5
2	167	443	719	4	84	2.2	6
2	168	444	720	4	100	2.2	7
2	169	445	721	4	116	2.2	8
2	170	446	722	4	132	2.2	9
2	171	447	723	4	148	2.2	10
2	172	448	724	4	164	2.2	11
2	173	449	725	4	180	2.2	12
2	174	450	726	4	196	2.2	13
2	175	451	727	4	212	2.2	14
2	176	452	728	4	228	2.2	15
2	177	453	729	4	244	2.2	16
2	178	454	730	4	260	2.2	17
2	179	455	731	4	276	2.2	18
2	180	456	732	4	292	2.2	19
2	181	457	733	4	308	2.2	20
2	182	458	734	4	324	2.2	21
2	183	459	735	4	340	2.2	22
2	184	460	736	4	356	2.2	23
2	185	461	737	5	3	2.1	1
2	186	462	738	5	19	2.1	2
2	187	463	739	5	35	2.1	3
2	188	464	740	5	51	2.1	4
2	189	465	741	5	67	2.1	5
2	190	466	742	5	83	2.1	6
2	191	467	743	5	99	2.1	7
2	192	468	744	5	115	2.1	8

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	193	469	745	5	131	2.1	9
2	194	470	746	5	147	2.1	10
2	195	471	747	5	163	2.1	11
2	196	472	748	5	179	2.1	12
2	197	473	749	5	195	2.1	13
2	198	474	750	5	211	2.1	14
2	199	475	751	5	227	2.1	15
2	200	476	752	5	243	2.1	16
2	201	477	753	5	259	2.1	17
2	202	478	754	5	275	2.1	18
2	203	479	755	5	291	2.1	19
2	204	480	756	5	307	2.1	20
2	205	481	757	5	323	2.1	21
2	206	482	758	5	339	2.1	22
2	207	483	759	5	355	2.1	23
2	208	484	760	5	4	2.2	1
2	209	485	761	5	20	2.2	2
2	210	486	762	5	36	2.2	3
2	211	487	763	5	52	2.2	4
2	212	488	764	5	68	2.2	5
2	213	489	765	5	84	2.2	6
2	214	490	766	5	100	2.2	7
2	215	491	767	5	116	2.2	8
2	216	492	768	5	132	2.2	9
2	217	493	769	5	148	2.2	10
2	218	494	770	5	164	2.2	11
2	219	495	771	5	180	2.2	12
2	220	496	772	5	196	2.2	13
2	221	497	773	5	212	2.2	14
2	222	498	774	5	228	2.2	15
2	223	499	775	5	244	2.2	16
2	224	500	776	5	260	2.2	17
2	225	501	777	5	276	2.2	18
2	226	502	778	5	292	2.2	19
2	227	503	779	5	308	2.2	20
2	228	504	780	5	324	2.2	21
2	229	505	781	5	340	2.2	22
2	230	506	782	5	356	2.2	23
2	231	507	783	6	3	2.1	1
2	232	508	784	6	19	2.1	2
2	233	509	785	6	35	2.1	3
2	234	510	786	6	51	2.1	4
2	235	511	787	6	67	2.1	5
2	236	512	788	6	83	2.1	6

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	237	513	789	6	99	2.1	7
2	238	514	790	6	115	2.1	8
2	239	515	791	6	131	2.1	9
2	240	516	792	6	147	2.1	10
2	241	517	793	6	163	2.1	11
2	242	518	794	6	179	2.1	12
2	243	519	795	6	195	2.1	13
2	244	520	796	6	211	2.1	14
2	245	521	797	6	227	2.1	15
2	246	522	798	6	243	2.1	16
2	247	523	799	6	259	2.1	17
2	248	524	800	6	275	2.1	18
2	249	525	801	6	291	2.1	19
2	250	526	802	6	307	2.1	20
2	251	527	803	6	323	2.1	21
2	252	528	804	6	339	2.1	22
2	253	529	805	6	355	2.1	23
2	254	530	806	6	4	2.2	1
2	255	531	807	6	20	2.2	2
2	256	532	808	6	36	2.2	3
2	257	533	809	6	52	2.2	4
2	258	534	810	6	68	2.2	5
2	259	535	811	6	84	2.2	6
2	260	536	812	6	100	2.2	7
2	261	537	813	6	116	2.2	8
2	262	538	814	6	132	2.2	9
2	263	539	815	6	148	2.2	10
2	264	540	816	6	164	2.2	11
2	265	541	817	6	180	2.2	12
2	266	542	818	6	196	2.2	13
2	267	543	819	6	212	2.2	14
2	268	544	820	6	228	2.2	15
2	269	545	821	6	244	2.2	16
2	270	546	822	6	260	2.2	17
2	271	547	823	6	276	2.2	18
2	272	548	824	6	292	2.2	19
2	273	549	825	6	308	2.2	20
2	274	550	826	6	324	2.2	21
2	275	551	827	6	340	2.2	22
2	276	552	828	6	356	2.2	23
2	277	-	829	7	3	2.1	1
2	278	-	830	7	19	2.1	2
2	279	-	831	7	35	2.1	3
2	280	-	832	7	51	2.1	4
2	281	-	833	7	67	2.1	5
2	282	-	834	7	83	2.1	6
2	283	-	835	7	99	2.1	7
2	284	-	836	7	115	2.1	8
2	285	-	837	7	131	2.1	9
2	286	-	838	7	147	2.1	10
2	287	-	839	7	163	2.1	11
2	288	-	840	7	179	2.1	12
2	289	-	841	7	195	2.1	13
2	290	-	842	7	211	2.1	14
2	291	-	843	7	227	2.1	15
2	292	-	844	7	243	2.1	16
2	293	-	845	7	259	2.1	17
2	294	-	846	7	275	2.1	18
2	295	-	847	7	291	2.1	19
2	296	-	848	7	307	2.1	20
2	297	-	849	7	323	2.1	21
2	298	-	850	7	339	2.1	22
2	299	-	851	7	355	2.1	23
2	300	-	852	7	4	2.2	1
2	301	-	853	7	20	2.2	2
2	302	-	854	7	36	2.2	3
2	303	-	855	7	52	2.2	4
2	304	-	856	7	68	2.2	5
2	305	-	857	7	84	2.2	6
2	306	-	858	7	100	2.2	7
2	307	-	859	7	116	2.2	8
2	308	-	860	7	132	2.2	9
2	309	-	861	7	148	2.2	10
2	310	-	862	7	164	2.2	11
2	311	-	863	7	180	2.2	12
2	312	-	864	7	196	2.2	13
2	313	-	865	7	212	2.2	14
2	314	-	866	7	228	2.2	15
2	315	-	867	7	244	2.2	16
2	316	-	868	7	260	2.2	17
2	317	-	869	7	276	2.2	18
2	318	-	870	7	292	2.2	19
2	319	-	871	7	308	2.2	20
2	320	-	872	7	324	2.2	21
2	321	-	873	7	340	2.2	22
2	322	-	874	7	356	2.2	23
2	323	-	875	8	3	2.1	1
2	324	-	876	8	19	2.1	2

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	325	-	877	8	35	2.1	3
2	326	-	878	8	51	2.1	4
2	327	-	879	8	67	2.1	5
2	328	-	880	8	83	2.1	6
2	329	-	881	8	99	2.1	7
2	330	-	882	8	115	2.1	8
2	331	-	883	8	131	2.1	9
2	332	-	884	8	147	2.1	10
2	333	-	885	8	163	2.1	11
2	334	-	886	8	179	2.1	12
2	335	-	887	8	195	2.1	13
2	336	-	888	8	211	2.1	14
2	337	-	889	8	227	2.1	15
2	338	-	890	8	243	2.1	16
2	339	-	891	8	259	2.1	17
2	340	-	892	8	275	2.1	18
2	341	-	893	8	291	2.1	19
2	342	-	894	8	307	2.1	20
2	343	-	895	8	323	2.1	21
2	344	-	896	8	339	2.1	22
2	345	-	897	8	355	2.1	23
2	346	-	898	8	4	2.2	1
2	347	-	899	8	20	2.2	2
2	348	-	900	8	36	2.2	3
2	349	-	901	8	52	2.2	4
2	350	-	902	8	68	2.2	5
2	351	-	903	8	84	2.2	6
2	352	-	904	8	100	2.2	7
2	353	-	905	8	116	2.2	8
2	354	-	906	8	132	2.2	9
2	355	-	907	8	148	2.2	10
2	356	-	908	8	164	2.2	11
2	357	-	909	8	180	2.2	12
2	358	-	910	8	196	2.2	13
2	359	-	911	8	212	2.2	14
2	360	-	912	8	228	2.2	15
2	361	-	913	8	244	2.2	16
2	362	-	914	8	260	2.2	17
2	363	-	915	8	276	2.2	18
2	364	-	916	8	292	2.2	19
2	365	-	917	8	308	2.2	20
2	366	-	918	8	324	2.2	21
2	367	-	919	8	340	2.2	22
2	368	-	920	8	356	2.2	23

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	369	-	921	9	3	2.1	1
2	370	-	922	9	19	2.1	2
2	371	-	923	9	35	2.1	3
2	372	-	924	9	51	2.1	4
2	373	-	925	9	67	2.1	5
2	374	-	926	9	83	2.1	6
2	375	-	927	9	99	2.1	7
2	376	-	928	9	115	2.1	8
2	377	-	929	9	131	2.1	9
2	378	-	930	9	147	2.1	10
2	379	-	931	9	163	2.1	11
2	380	-	932	9	179	2.1	12
2	381	-	933	9	195	2.1	13
2	382	-	934	9	211	2.1	14
2	383	-	935	9	227	2.1	15
2	384	-	936	9	243	2.1	16
2	385	-	937	9	259	2.1	17
2	386	-	938	9	275	2.1	18
2	387	-	939	9	291	2.1	19
2	388	-	940	9	307	2.1	20
2	389	-	941	9	323	2.1	21
2	390	-	942	9	339	2.1	22
2	391	-	943	9	355	2.1	23
2	392	-	944	9	4	2.2	1
2	393	-	945	9	20	2.2	2
2	394	-	946	9	36	2.2	3
2	395	-	947	9	52	2.2	4
2	396	-	948	9	68	2.2	5
2	397	-	949	9	84	2.2	6
2	398	-	950	9	100	2.2	7
2	399	-	951	9	116	2.2	8
2	400	-	952	9	132	2.2	9
2	401	-	953	9	148	2.2	10
2	402	-	954	9	164	2.2	11
2	403	-	955	9	180	2.2	12
2	404	-	956	9	196	2.2	13
2	405	-	957	9	212	2.2	14
2	406	-	958	9	228	2.2	15
2	407	-	959	9	244	2.2	16
2	408	-	960	9	260	2.2	17
2	409	-	961	9	276	2.2	18
2	410	-	962	9	292	2.2	19
2	411	-	963	9	308	2.2	20
2	412	-	964	9	324	2.2	21

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	413	-	965	9	340	2.2	22
2	414	-	966	9	356	2.2	23
2	415	-	967	10	3	2.1	1
2	416	-	968	10	19	2.1	2
2	417	-	969	10	35	2.1	3
2	418	-	970	10	51	2.1	4
2	419	-	971	10	67	2.1	5
2	420	-	972	10	83	2.1	6
2	421	-	973	10	99	2.1	7
2	422	-	974	10	115	2.1	8
2	423	-	975	10	131	2.1	9
2	424	-	976	10	147	2.1	10
2	425	-	977	10	163	2.1	11
2	426	-	978	10	179	2.1	12
2	427	-	979	10	195	2.1	13
2	428	-	980	10	211	2.1	14
2	429	-	981	10	227	2.1	15
2	430	-	982	10	243	2.1	16
2	431	-	983	10	259	2.1	17
2	432	-	984	10	275	2.1	18
2	433	-	985	10	291	2.1	19
2	434	-	986	10	307	2.1	20
2	435	-	987	10	323	2.1	21
2	436	-	988	10	339	2.1	22
2	437	-	989	10	355	2.1	23
2	438	-	990	10	4	2.2	1
2	439	-	991	10	20	2.2	2
2	440	-	992	10	36	2.2	3
2	441	-	993	10	52	2.2	4
2	442	-	994	10	68	2.2	5
2	443	-	995	10	84	2.2	6
2	444	-	996	10	100	2.2	7
2	445	-	997	10	116	2.2	8
2	446	-	998	10	132	2.2	9
2	447	-	999	10	148	2.2	10
2	448	-	1000	10	164	2.2	11
2	449	-	1001	10	180	2.2	12
2	450	-	1002	10	196	2.2	13
2	451	-	1003	10	212	2.2	14
2	452	-	1004	10	228	2.2	15
2	453	-	1005	10	244	2.2	16
2	454	-	1006	10	260	2.2	17
2	455	-	1007	10	276	2.2	18
2	456	-	1008	10	292	2.2	19

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	457	-	1009	10	308	2.2	20
2	458	-	1010	10	324	2.2	21
2	459	-	1011	10	340	2.2	22
2	460	-	1012	10	356	2.2	23
2	461	-	1013	11	3	2.1	1
2	462	-	1014	11	19	2.1	2
2	463	-	1015	11	35	2.1	3
2	464	-	1016	11	51	2.1	4
2	465	-	1017	11	67	2.1	5
2	466	-	1018	11	83	2.1	6
2	467	-	1019	11	99	2.1	7
2	468	-	1020	11	115	2.1	8
2	469	-	1021	11	131	2.1	9
2	470	-	1022	11	147	2.1	10
2	471	-	1023	11	163	2.1	11
2	472	-	1024	11	179	2.1	12
2	473	-	1025	11	195	2.1	13
2	474	-	1026	11	211	2.1	14
2	475	-	1027	11	227	2.1	15
2	476	-	1028	11	243	2.1	16
2	477	-	1029	11	259	2.1	17
2	478	-	1030	11	275	2.1	18
2	479	-	1031	11	291	2.1	19
2	480	-	1032	11	307	2.1	20
2	481	-	1033	11	323	2.1	21
2	482	-	1034	11	339	2.1	22
2	483	-	1035	11	355	2.1	23
2	484	-	1036	11	4	2.2	1
2	485	-	1037	11	20	2.2	2
2	486	-	1038	11	36	2.2	3
2	487	-	1039	11	52	2.2	4
2	488	-	1040	11	68	2.2	5
2	489	-	1041	11	84	2.2	6
2	490	-	1042	11	100	2.2	7
2	491	-	1043	11	116	2.2	8
2	492	-	1044	11	132	2.2	9
2	493	-	1045	11	148	2.2	10
2	494	-	1046	11	164	2.2	11
2	495	-	1047	11	180	2.2	12
2	496	-	1048	11	196	2.2	13
2	497	-	1049	11	212	2.2	14
2	498	-	1050	11	228	2.2	15
2	499	-	1051	11	244	2.2	16
2	500	-	1052	11	260	2.2	17

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
2	501	-	1053	11	276	2.2	18
2	502	-	1054	11	292	2.2	19
2	503	-	1055	11	308	2.2	20
2	504	-	1056	11	324	2.2	21
2	505	-	1057	11	340	2.2	22
2	506	-	1058	11	356	2.2	23
2	507	-	1059	12	3	2.1	1
2	508	-	1060	12	19	2.1	2
2	509	-	1061	12	35	2.1	3
2	510	-	1062	12	51	2.1	4
2	511	-	1063	12	67	2.1	5
2	512	-	1064	12	83	2.1	6
2	513	-	1065	12	99	2.1	7
2	514	-	1066	12	115	2.1	8
2	515	-	1067	12	131	2.1	9
2	516	-	1068	12	147	2.1	10
2	517	-	1069	12	163	2.1	11
2	518	-	1070	12	179	2.1	12
2	519	-	1071	12	195	2.1	13
2	520	-	1072	12	211	2.1	14
2	521	-	1073	12	227	2.1	15
2	522	-	1074	12	243	2.1	16
2	523	-	1075	12	259	2.1	17
2	524	-	1076	12	275	2.1	18
2	525	-	1077	12	291	2.1	19
2	526	-	1078	12	307	2.1	20
2	527	-	1079	12	323	2.1	21
2	528	-	1080	12	339	2.1	22
2	529	-	1081	12	355	2.1	23
2	530	-	1082	12	4	2.2	1
2	531	-	1083	12	20	2.2	2
2	532	-	1084	12	36	2.2	3
2	533	-	1085	12	52	2.2	4
2	534	-	1086	12	68	2.2	5
2	535	-	1087	12	84	2.2	6
2	536	-	1088	12	100	2.2	7
2	537	-	1089	12	116	2.2	8
2	538	-	1090	12	132	2.2	9
2	539	-	1091	12	148	2.2	10
2	540	-	1092	12	164	2.2	11
2	541	-	1093	12	180	2.2	12
2	542	-	1094	12	196	2.2	13
2	543	-	1095	12	212	2.2	14
2	544	-	1096	12	228	2.2	15
2	545	-	1097	12	244	2.2	16
2	546	-	1098	12	260	2.2	17
2	547	-	1099	12	276	2.2	18
2	548	-	1100	12	292	2.2	19
2	549	-	1101	12	308	2.2	20
2	550	-	1102	12	324	2.2	21
2	551	-	1103	12	340	2.2	22
2	552	-	1104	12	356	2.2	23
3	1	553	1105	1	5	3.1	1
3	2	554	1106	1	21	3.1	2
3	3	555	1107	1	37	3.1	3
3	4	556	1108	1	53	3.1	4
3	5	557	1109	1	69	3.1	5
3	6	558	1110	1	85	3.1	6
3	7	559	1111	1	101	3.1	7
3	8	560	1112	1	117	3.1	8
3	9	561	1113	1	133	3.1	9
3	10	562	1114	1	149	3.1	10
3	11	563	1115	1	165	3.1	11
3	12	564	1116	1	181	3.1	12
3	13	565	1117	1	197	3.1	13
3	14	566	1118	1	213	3.1	14
3	15	567	1119	1	229	3.1	15
3	16	568	1120	1	245	3.1	16
3	17	569	1121	1	261	3.1	17
3	18	570	1122	1	277	3.1	18
3	19	571	1123	1	293	3.1	19
3	20	572	1124	1	309	3.1	20
3	21	573	1125	1	325	3.1	21
3	22	574	1126	1	341	3.1	22
3	23	575	1127	1	357	3.1	23
3	24	576	1128	1	6	3.2	1
3	25	577	1129	1	22	3.2	2
3	26	578	1130	1	38	3.2	3
3	27	579	1131	1	54	3.2	4
3	28	580	1132	1	70	3.2	5
3	29	581	1133	1	86	3.2	6
3	30	582	1134	1	102	3.2	7
3	31	583	1135	1	118	3.2	8
3	32	584	1136	1	134	3.2	9
3	33	585	1137	1	150	3.2	10
3	34	586	1138	1	166	3.2	11
3	35	587	1139	1	182	3.2	12
3	36	588	1140	1	198	3.2	13
3	37	589	1141	1	214	3.2	14
3	38	590	1142	1	230	3.2	15

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	39	591	1143	1	246	3.2	16
3	40	592	1144	1	262	3.2	17
3	41	593	1145	1	278	3.2	18
3	42	594	1146	1	294	3.2	19
3	43	595	1147	1	310	3.2	20
3	44	596	1148	1	326	3.2	21
3	45	597	1149	1	342	3.2	22
3	46	598	1150	1	358	3.2	23
3	47	599	1151	2	5	3.1	1
3	48	600	1152	2	21	3.1	2
3	49	601	1153	2	37	3.1	3
3	50	602	1154	2	53	3.1	4
3	51	603	1155	2	69	3.1	5
3	52	604	1156	2	85	3.1	6
3	53	605	1157	2	101	3.1	7
3	54	606	1158	2	117	3.1	8
3	55	607	1159	2	133	3.1	9
3	56	608	1160	2	149	3.1	10
3	57	609	1161	2	165	3.1	11
3	58	610	1162	2	181	3.1	12
3	59	611	1163	2	197	3.1	13
3	60	612	1164	2	213	3.1	14
3	61	613	1165	2	229	3.1	15
3	62	614	1166	2	245	3.1	16
3	63	615	1167	2	261	3.1	17
3	64	616	1168	2	277	3.1	18
3	65	617	1169	2	293	3.1	19
3	66	618	1170	2	309	3.1	20
3	67	619	1171	2	325	3.1	21
3	68	620	1172	2	341	3.1	22
3	69	621	1173	2	357	3.1	23
3	70	622	1174	2	6	3.2	1
3	71	623	1175	2	22	3.2	2
3	72	624	1176	2	38	3.2	3
3	73	625	1177	2	54	3.2	4
3	74	626	1178	2	70	3.2	5
3	75	627	1179	2	86	3.2	6
3	76	628	1180	2	102	3.2	7
3	77	629	1181	2	118	3.2	8
3	78	630	1182	2	134	3.2	9
3	79	631	1183	2	150	3.2	10
3	80	632	1184	2	166	3.2	11
3	81	633	1185	2	182	3.2	12
3	82	634	1186	2	198	3.2	13
3	83	635	1187	2	214	3.2	14
3	84	636	1188	2	230	3.2	15
3	85	637	1189	2	246	3.2	16
3	86	638	1190	2	262	3.2	17
3	87	639	1191	2	278	3.2	18
3	88	640	1192	2	294	3.2	19
3	89	641	1193	2	310	3.2	20
3	90	642	1194	2	326	3.2	21
3	91	643	1195	2	342	3.2	22
3	92	644	1196	2	358	3.2	23
3	93	645	1197	3	5	3.1	1
3	94	646	1198	3	21	3.1	2
3	95	647	1199	3	37	3.1	3
3	96	648	1200	3	53	3.1	4
3	97	649	1201	3	69	3.1	5
3	98	650	1202	3	85	3.1	6
3	99	651	1203	3	101	3.1	7
3	100	652	1204	3	117	3.1	8
3	101	653	1205	3	133	3.1	9
3	102	654	1206	3	149	3.1	10
3	103	655	1207	3	165	3.1	11
3	104	656	1208	3	181	3.1	12
3	105	657	1209	3	197	3.1	13
3	106	658	1210	3	213	3.1	14
3	107	659	1211	3	229	3.1	15
3	108	660	1212	3	245	3.1	16
3	109	661	1213	3	261	3.1	17
3	110	662	1214	3	277	3.1	18
3	111	663	1215	3	293	3.1	19
3	112	664	1216	3	309	3.1	20
3	113	665	1217	3	325	3.1	21
3	114	666	1218	3	341	3.1	22
3	115	667	1219	3	357	3.1	23
3	116	668	1220	3	6	3.2	1
3	117	669	1221	3	22	3.2	2
3	118	670	1222	3	38	3.2	3
3	119	671	1223	3	54	3.2	4
3	120	672	1224	3	70	3.2	5
3	121	673	1225	3	86	3.2	6
3	122	674	1226	3	102	3.2	7
3	123	675	1227	3	118	3.2	8
3	124	676	1228	3	134	3.2	9
3	125	677	1229	3	150	3.2	10
3	126	678	1230	3	166	3.2	11
3	127	679	1231	3	182	3.2	12
3	128	680	1232	3	198	3.2	13

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	129	681	1233	3	214	3.2	14
3	130	682	1234	3	230	3.2	15
3	131	683	1235	3	246	3.2	16
3	132	684	1236	3	262	3.2	17
3	133	685	1237	3	278	3.2	18
3	134	686	1238	3	294	3.2	19
3	135	687	1239	3	310	3.2	20
3	136	688	1240	3	326	3.2	21
3	137	689	1241	3	342	3.2	22
3	138	690	1242	3	358	3.2	23
3	139	691	1243	4	5	3.1	1
3	140	692	1244	4	21	3.1	2
3	141	693	1245	4	37	3.1	3
3	142	694	1246	4	53	3.1	4
3	143	695	1247	4	69	3.1	5
3	144	696	1248	4	85	3.1	6
3	145	697	1249	4	101	3.1	7
3	146	698	1250	4	117	3.1	8
3	147	699	1251	4	133	3.1	9
3	148	700	1252	4	149	3.1	10
3	149	701	1253	4	165	3.1	11
3	150	702	1254	4	181	3.1	12
3	151	703	1255	4	197	3.1	13
3	152	704	1256	4	213	3.1	14
3	153	705	1257	4	229	3.1	15
3	154	706	1258	4	245	3.1	16
3	155	707	1259	4	261	3.1	17
3	156	708	1260	4	277	3.1	18
3	157	709	1261	4	293	3.1	19
3	158	710	1262	4	309	3.1	20
3	159	711	1263	4	325	3.1	21
3	160	712	1264	4	341	3.1	22
3	161	713	1265	4	357	3.1	23
3	162	714	1266	4	6	3.2	1
3	163	715	1267	4	22	3.2	2
3	164	716	1268	4	38	3.2	3
3	165	717	1269	4	54	3.2	4
3	166	718	1270	4	70	3.2	5
3	167	719	1271	4	86	3.2	6
3	168	720	1272	4	102	3.2	7
3	169	721	1273	4	118	3.2	8
3	170	722	1274	4	134	3.2	9
3	171	723	1275	4	150	3.2	10
3	172	724	1276	4	166	3.2	11

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	173	725	1277	4	182	3.2	12
3	174	726	1278	4	198	3.2	13
3	175	727	1279	4	214	3.2	14
3	176	728	1280	4	230	3.2	15
3	177	729	1281	4	246	3.2	16
3	178	730	1282	4	262	3.2	17
3	179	731	1283	4	278	3.2	18
3	180	732	1284	4	294	3.2	19
3	181	733	1285	4	310	3.2	20
3	182	734	1286	4	326	3.2	21
3	183	735	1287	4	342	3.2	22
3	184	736	1288	4	358	3.2	23
3	185	737	1289	5	5	3.1	1
3	186	738	1290	5	21	3.1	2
3	187	739	1291	5	37	3.1	3
3	188	740	1292	5	53	3.1	4
3	189	741	1293	5	69	3.1	5
3	190	742	1294	5	85	3.1	6
3	191	743	1295	5	101	3.1	7
3	192	744	1296	5	117	3.1	8
3	193	745	1297	5	133	3.1	9
3	194	746	1298	5	149	3.1	10
3	195	747	1299	5	165	3.1	11
3	196	748	1300	5	181	3.1	12
3	197	749	1301	5	197	3.1	13
3	198	750	1302	5	213	3.1	14
3	199	751	1303	5	229	3.1	15
3	200	752	1304	5	245	3.1	16
3	201	753	1305	5	261	3.1	17
3	202	754	1306	5	277	3.1	18
3	203	755	1307	5	293	3.1	19
3	204	756	1308	5	309	3.1	20
3	205	757	1309	5	325	3.1	21
3	206	758	1310	5	341	3.1	22
3	207	759	1311	5	357	3.1	23
3	208	760	1312	5	6	3.2	1
3	209	761	1313	5	22	3.2	2
3	210	762	1314	5	38	3.2	3
3	211	763	1315	5	54	3.2	4
3	212	764	1316	5	70	3.2	5
3	213	765	1317	5	86	3.2	6
3	214	766	1318	5	102	3.2	7
3	215	767	1319	5	118	3.2	8
3	216	768	1320	5	134	3.2	9

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	217	769	1321	5	150	3.2	10
3	218	770	1322	5	166	3.2	11
3	219	771	1323	5	182	3.2	12
3	220	772	1324	5	198	3.2	13
3	221	773	1325	5	214	3.2	14
3	222	774	1326	5	230	3.2	15
3	223	775	1327	5	246	3.2	16
3	224	776	1328	5	262	3.2	17
3	225	777	1329	5	278	3.2	18
3	226	778	1330	5	294	3.2	19
3	227	779	1331	5	310	3.2	20
3	228	780	1332	5	326	3.2	21
3	229	781	1333	5	342	3.2	22
3	230	782	1334	5	358	3.2	23
3	231	783	1335	6	5	3.1	1
3	232	784	1336	6	21	3.1	2
3	233	785	1337	6	37	3.1	3
3	234	786	1338	6	53	3.1	4
3	235	787	1339	6	69	3.1	5
3	236	788	1340	6	85	3.1	6
3	237	789	1341	6	101	3.1	7
3	238	790	1342	6	117	3.1	8
3	239	791	1343	6	133	3.1	9
3	240	792	1344	6	149	3.1	10
3	241	793	1345	6	165	3.1	11
3	242	794	1346	6	181	3.1	12
3	243	795	1347	6	197	3.1	13
3	244	796	1348	6	213	3.1	14
3	245	797	1349	6	229	3.1	15
3	246	798	1350	6	245	3.1	16
3	247	799	1351	6	261	3.1	17
3	248	800	1352	6	277	3.1	18
3	249	801	1353	6	293	3.1	19
3	250	802	1354	6	309	3.1	20
3	251	803	1355	6	325	3.1	21
3	252	804	1356	6	341	3.1	22
3	253	805	1357	6	357	3.1	23
3	254	806	1358	6	6	3.2	1
3	255	807	1359	6	22	3.2	2
3	256	808	1360	6	38	3.2	3
3	257	809	1361	6	54	3.2	4
3	258	810	1362	6	70	3.2	5
3	259	811	1363	6	86	3.2	6
3	260	812	1364	6	102	3.2	7
3	261	813	1365	6	118	3.2	8
3	262	814	1366	6	134	3.2	9
3	263	815	1367	6	150	3.2	10
3	264	816	1368	6	166	3.2	11
3	265	817	1369	6	182	3.2	12
3	266	818	1370	6	198	3.2	13
3	267	819	1371	6	214	3.2	14
3	268	820	1372	6	230	3.2	15
3	269	821	1373	6	246	3.2	16
3	270	822	1374	6	262	3.2	17
3	271	823	1375	6	278	3.2	18
3	272	824	1376	6	294	3.2	19
3	273	825	1377	6	310	3.2	20
3	274	826	1378	6	326	3.2	21
3	275	827	1379	6	342	3.2	22
3	276	828	1380	6	358	3.2	23
3	277	-	1381	7	5	3.1	1
3	278	-	1382	7	21	3.1	2
3	279	-	1383	7	37	3.1	3
3	280	-	1384	7	53	3.1	4
3	281	-	1385	7	69	3.1	5
3	282	-	1386	7	85	3.1	6
3	283	-	1387	7	101	3.1	7
3	284	-	1388	7	117	3.1	8
3	285	-	1389	7	133	3.1	9
3	286	-	1390	7	149	3.1	10
3	287	-	1391	7	165	3.1	11
3	288	-	1392	7	181	3.1	12
3	289	-	1393	7	197	3.1	13
3	290	-	1394	7	213	3.1	14
3	291	-	1395	7	229	3.1	15
3	292	-	1396	7	245	3.1	16
3	293	-	1397	7	261	3.1	17
3	294	-	1398	7	277	3.1	18
3	295	-	1399	7	293	3.1	19
3	296	-	1400	7	309	3.1	20
3	297	-	1401	7	325	3.1	21
3	298	-	1402	7	341	3.1	22
3	299	-	1403	7	357	3.1	23
3	300	-	1404	7	6	3.2	1
3	301	-	1405	7	22	3.2	2
3	302	-	1406	7	38	3.2	3
3	303	-	1407	7	54	3.2	4
3	304	-	1408	7	70	3.2	5

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	305	-	1409	7	86	3.2	6
3	306	-	1410	7	102	3.2	7
3	307	-	1411	7	118	3.2	8
3	308	-	1412	7	134	3.2	9
3	309	-	1413	7	150	3.2	10
3	310	-	1414	7	166	3.2	11
3	311	-	1415	7	182	3.2	12
3	312	-	1416	7	198	3.2	13
3	313	-	1417	7	214	3.2	14
3	314	-	1418	7	230	3.2	15
3	315	-	1419	7	246	3.2	16
3	316	-	1420	7	262	3.2	17
3	317	-	1421	7	278	3.2	18
3	318	-	1422	7	294	3.2	19
3	319	-	1423	7	310	3.2	20
3	320	-	1424	7	326	3.2	21
3	321	-	1425	7	342	3.2	22
3	322	-	1426	7	358	3.2	23
3	323	-	1427	8	5	3.1	1
3	324	-	1428	8	21	3.1	2
3	325	-	1429	8	37	3.1	3
3	326	-	1430	8	53	3.1	4
3	327	-	1431	8	69	3.1	5
3	328	-	1432	8	85	3.1	6
3	329	-	1433	8	101	3.1	7
3	330	-	1434	8	117	3.1	8
3	331	-	1435	8	133	3.1	9
3	332	-	1436	8	149	3.1	10
3	333	-	1437	8	165	3.1	11
3	334	-	1438	8	181	3.1	12
3	335	-	1439	8	197	3.1	13
3	336	-	1440	8	213	3.1	14
3	337	-	1441	8	229	3.1	15
3	338	-	1442	8	245	3.1	16
3	339	-	1443	8	261	3.1	17
3	340	-	1444	8	277	3.1	18
3	341	-	1445	8	293	3.1	19
3	342	-	1446	8	309	3.1	20
3	343	-	1447	8	325	3.1	21
3	344	-	1448	8	341	3.1	22
3	345	-	1449	8	357	3.1	23
3	346	-	1450	8	6	3.2	1
3	347	-	1451	8	22	3.2	2
3	348	-	1452	8	38	3.2	3

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	349	-	1453	8	54	3.2	4
3	350	-	1454	8	70	3.2	5
3	351	-	1455	8	86	3.2	6
3	352	-	1456	8	102	3.2	7
3	353	-	1457	8	118	3.2	8
3	354	-	1458	8	134	3.2	9
3	355	-	1459	8	150	3.2	10
3	356	-	1460	8	166	3.2	11
3	357	-	1461	8	182	3.2	12
3	358	-	1462	8	198	3.2	13
3	359	-	1463	8	214	3.2	14
3	360	-	1464	8	230	3.2	15
3	361	-	1465	8	246	3.2	16
3	362	-	1466	8	262	3.2	17
3	363	-	1467	8	278	3.2	18
3	364	-	1468	8	294	3.2	19
3	365	-	1469	8	310	3.2	20
3	366	-	1470	8	326	3.2	21
3	367	-	1471	8	342	3.2	22
3	368	-	1472	8	358	3.2	23
3	369	-	1473	9	5	3.1	1
3	370	-	1474	9	21	3.1	2
3	371	-	1475	9	37	3.1	3
3	372	-	1476	9	53	3.1	4
3	373	-	1477	9	69	3.1	5
3	374	-	1478	9	85	3.1	6
3	375	-	1479	9	101	3.1	7
3	376	-	1480	9	117	3.1	8
3	377	-	1481	9	133	3.1	9
3	378	-	1482	9	149	3.1	10
3	379	-	1483	9	165	3.1	11
3	380	-	1484	9	181	3.1	12
3	381	-	1485	9	197	3.1	13
3	382	-	1486	9	213	3.1	14
3	383	-	1487	9	229	3.1	15
3	384	-	1488	9	245	3.1	16
3	385	-	1489	9	261	3.1	17
3	386	-	1490	9	277	3.1	18
3	387	-	1491	9	293	3.1	19
3	388	-	1492	9	309	3.1	20
3	389	-	1493	9	325	3.1	21
3	390	-	1494	9	341	3.1	22
3	391	-	1495	9	357	3.1	23
3	392	-	1496	9	6	3.2	1

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	393	-	1497	9	22	3.2	2
3	394	-	1498	9	38	3.2	3
3	395	-	1499	9	54	3.2	4
3	396	-	1500	9	70	3.2	5
3	397	-	1501	9	86	3.2	6
3	398	-	1502	9	102	3.2	7
3	399	-	1503	9	118	3.2	8
3	400	-	1504	9	134	3.2	9
3	401	-	1505	9	150	3.2	10
3	402	-	1506	9	166	3.2	11
3	403	-	1507	9	182	3.2	12
3	404	-	1508	9	198	3.2	13
3	405	-	1509	9	214	3.2	14
3	406	-	1510	9	230	3.2	15
3	407	-	1511	9	246	3.2	16
3	408	-	1512	9	262	3.2	17
3	409	-	1513	9	278	3.2	18
3	410	-	1514	9	294	3.2	19
3	411	-	1515	9	310	3.2	20
3	412	-	1516	9	326	3.2	21
3	413	-	1517	9	342	3.2	22
3	414	-	1518	9	358	3.2	23
3	415	-	1519	10	5	3.1	1
3	416	-	1520	10	21	3.1	2
3	417	-	1521	10	37	3.1	3
3	418	-	1522	10	53	3.1	4
3	419	-	1523	10	69	3.1	5
3	420	-	1524	10	85	3.1	6
3	421	-	1525	10	101	3.1	7
3	422	-	1526	10	117	3.1	8
3	423	-	1527	10	133	3.1	9
3	424	-	1528	10	149	3.1	10
3	425	-	1529	10	165	3.1	11
3	426	-	1530	10	181	3.1	12
3	427	-	1531	10	197	3.1	13
3	428	-	1532	10	213	3.1	14
3	429	-	1533	10	229	3.1	15
3	430	-	1534	10	245	3.1	16
3	431	-	1535	10	261	3.1	17
3	432	-	1536	10	277	3.1	18
3	433	-	1537	10	293	3.1	19
3	434	-	1538	10	309	3.1	20
3	435	-	1539	10	325	3.1	21
3	436	-	1540	10	341	3.1	22

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	437	-	1541	10	357	3.1	23
3	438	-	1542	10	6	3.2	1
3	439	-	1543	10	22	3.2	2
3	440	-	1544	10	38	3.2	3
3	441	-	1545	10	54	3.2	4
3	442	-	1546	10	70	3.2	5
3	443	-	1547	10	86	3.2	6
3	444	-	1548	10	102	3.2	7
3	445	-	1549	10	118	3.2	8
3	446	-	1550	10	134	3.2	9
3	447	-	1551	10	150	3.2	10
3	448	-	1552	10	166	3.2	11
3	449	-	1553	10	182	3.2	12
3	450	-	1554	10	198	3.2	13
3	451	-	1555	10	214	3.2	14
3	452	-	1556	10	230	3.2	15
3	453	-	1557	10	246	3.2	16
3	454	-	1558	10	262	3.2	17
3	455	-	1559	10	278	3.2	18
3	456	-	1560	10	294	3.2	19
3	457	-	1561	10	310	3.2	20
3	458	-	1562	10	326	3.2	21
3	459	-	1563	10	342	3.2	22
3	460	-	1564	10	358	3.2	23
3	461	-	1565	11	5	3.1	1
3	462	-	1566	11	21	3.1	2
3	463	-	1567	11	37	3.1	3
3	464	-	1568	11	53	3.1	4
3	465	-	1569	11	69	3.1	5
3	466	-	1570	11	85	3.1	6
3	467	-	1571	11	101	3.1	7
3	468	-	1572	11	117	3.1	8
3	469	-	1573	11	133	3.1	9
3	470	-	1574	11	149	3.1	10
3	471	-	1575	11	165	3.1	11
3	472	-	1576	11	181	3.1	12
3	473	-	1577	11	197	3.1	13
3	474	-	1578	11	213	3.1	14
3	475	-	1579	11	229	3.1	15
3	476	-	1580	11	245	3.1	16
3	477	-	1581	11	261	3.1	17
3	478	-	1582	11	277	3.1	18
3	479	-	1583	11	293	3.1	19
3	480	-	1584	11	309	3.1	20

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
3	481	-	1585	11	325	3.1	21
3	482	-	1586	11	341	3.1	22
3	483	-	1587	11	357	3.1	23
3	484	-	1588	11	6	3.2	1
3	485	-	1589	11	22	3.2	2
3	486	-	1590	11	38	3.2	3
3	487	-	1591	11	54	3.2	4
3	488	-	1592	11	70	3.2	5
3	489	-	1593	11	86	3.2	6
3	490	-	1594	11	102	3.2	7
3	491	-	1595	11	118	3.2	8
3	492	-	1596	11	134	3.2	9
3	493	-	1597	11	150	3.2	10
3	494	-	1598	11	166	3.2	11
3	495	-	1599	11	182	3.2	12
3	496	-	1600	11	198	3.2	13
3	497	-	1601	11	214	3.2	14
3	498	-	1602	11	230	3.2	15
3	499	-	1603	11	246	3.2	16
3	500	-	1604	11	262	3.2	17
3	501	-	1605	11	278	3.2	18
3	502	-	1606	11	294	3.2	19
3	503	-	1607	11	310	3.2	20
3	504	-	1608	11	326	3.2	21
3	505	-	1609	11	342	3.2	22
3	506	-	1610	11	358	3.2	23
3	507	-	1611	12	5	3.1	1
3	508	-	1612	12	21	3.1	2
3	509	-	1613	12	37	3.1	3
3	510	-	1614	12	53	3.1	4
3	511	-	1615	12	69	3.1	5
3	512	-	1616	12	85	3.1	6
3	513	-	1617	12	101	3.1	7
3	514	-	1618	12	117	3.1	8
3	515	-	1619	12	133	3.1	9
3	516	-	1620	12	149	3.1	10
3	517	-	1621	12	165	3.1	11
3	518	-	1622	12	181	3.1	12
3	519	-	1623	12	197	3.1	13
3	520	-	1624	12	213	3.1	14
3	521	-	1625	12	229	3.1	15
3	522	-	1626	12	245	3.1	16
3	523	-	1627	12	261	3.1	17
3	524	-	1628	12	277	3.1	18
3	525	-	1629	12	293	3.1	19
3	526	-	1630	12	309	3.1	20
3	527	-	1631	12	325	3.1	21
3	528	-	1632	12	341	3.1	22
3	529	-	1633	12	357	3.1	23
3	530	-	1634	12	6	3.2	1
3	531	-	1635	12	22	3.2	2
3	532	-	1636	12	38	3.2	3
3	533	-	1637	12	54	3.2	4
3	534	-	1638	12	70	3.2	5
3	535	-	1639	12	86	3.2	6
3	536	-	1640	12	102	3.2	7
3	537	-	1641	12	118	3.2	8
3	538	-	1642	12	134	3.2	9
3	539	-	1643	12	150	3.2	10
3	540	-	1644	12	166	3.2	11
3	541	-	1645	12	182	3.2	12
3	542	-	1646	12	198	3.2	13
3	543	-	1647	12	214	3.2	14
3	544	-	1648	12	230	3.2	15
3	545	-	1649	12	246	3.2	16
3	546	-	1650	12	262	3.2	17
3	547	-	1651	12	278	3.2	18
3	548	-	1652	12	294	3.2	19
3	549	-	1653	12	310	3.2	20
3	550	-	1654	12	326	3.2	21
3	551	-	1655	12	342	3.2	22
3	552	-	1656	12	358	3.2	23
4	1	829	1657	1	7	4.1	1
4	2	830	1658	1	23	4.1	2
4	3	831	1659	1	39	4.1	3
4	4	832	1660	1	55	4.1	4
4	5	833	1661	1	71	4.1	5
4	6	834	1662	1	87	4.1	6
4	7	835	1663	1	103	4.1	7
4	8	836	1664	1	119	4.1	8
4	9	837	1665	1	135	4.1	9
4	10	838	1666	1	151	4.1	10
4	11	839	1667	1	167	4.1	11
4	12	840	1668	1	183	4.1	12
4	13	841	1669	1	199	4.1	13
4	14	842	1670	1	215	4.1	14
4	15	843	1671	1	231	4.1	15
4	16	844	1672	1	247	4.1	16

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	17	845	1673	1	263	4.1	17
4	18	846	1674	1	279	4.1	18
4	19	847	1675	1	295	4.1	19
4	20	848	1676	1	311	4.1	20
4	21	849	1677	1	327	4.1	21
4	22	850	1678	1	343	4.1	22
4	23	851	1679	1	359	4.1	23
4	24	852	1680	1	8	4.2	1
4	25	853	1681	1	24	4.2	2
4	26	854	1682	1	40	4.2	3
4	27	855	1683	1	56	4.2	4
4	28	856	1684	1	72	4.2	5
4	29	857	1685	1	88	4.2	6
4	30	858	1686	1	104	4.2	7
4	31	859	1687	1	120	4.2	8
4	32	860	1688	1	136	4.2	9
4	33	861	1689	1	152	4.2	10
4	34	862	1690	1	168	4.2	11
4	35	863	1691	1	184	4.2	12
4	36	864	1692	1	200	4.2	13
4	37	865	1693	1	216	4.2	14
4	38	866	1694	1	232	4.2	15
4	39	867	1695	1	248	4.2	16
4	40	868	1696	1	264	4.2	17
4	41	869	1697	1	280	4.2	18
4	42	870	1698	1	296	4.2	19
4	43	871	1699	1	312	4.2	20
4	44	872	1700	1	328	4.2	21
4	45	873	1701	1	344	4.2	22
4	46	874	1702	1	360	4.2	23
4	47	875	1703	2	7	4.1	1
4	48	876	1704	2	23	4.1	2
4	49	877	1705	2	39	4.1	3
4	50	878	1706	2	55	4.1	4
4	51	879	1707	2	71	4.1	5
4	52	880	1708	2	87	4.1	6
4	53	881	1709	2	103	4.1	7
4	54	882	1710	2	119	4.1	8
4	55	883	1711	2	135	4.1	9
4	56	884	1712	2	151	4.1	10
4	57	885	1713	2	167	4.1	11
4	58	886	1714	2	183	4.1	12
4	59	887	1715	2	199	4.1	13
4	60	888	1716	2	215	4.1	14

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	61	889	1717	2	231	4.1	15
4	62	890	1718	2	247	4.1	16
4	63	891	1719	2	263	4.1	17
4	64	892	1720	2	279	4.1	18
4	65	893	1721	2	295	4.1	19
4	66	894	1722	2	311	4.1	20
4	67	895	1723	2	327	4.1	21
4	68	896	1724	2	343	4.1	22
4	69	897	1725	2	359	4.1	23
4	70	898	1726	2	8	4.2	1
4	71	899	1727	2	24	4.2	2
4	72	900	1728	2	40	4.2	3
4	73	901	1729	2	56	4.2	4
4	74	902	1730	2	72	4.2	5
4	75	903	1731	2	88	4.2	6
4	76	904	1732	2	104	4.2	7
4	77	905	1733	2	120	4.2	8
4	78	906	1734	2	136	4.2	9
4	79	907	1735	2	152	4.2	10
4	80	908	1736	2	168	4.2	11
4	81	909	1737	2	184	4.2	12
4	82	910	1738	2	200	4.2	13
4	83	911	1739	2	216	4.2	14
4	84	912	1740	2	232	4.2	15
4	85	913	1741	2	248	4.2	16
4	86	914	1742	2	264	4.2	17
4	87	915	1743	2	280	4.2	18
4	88	916	1744	2	296	4.2	19
4	89	917	1745	2	312	4.2	20
4	90	918	1746	2	328	4.2	21
4	91	919	1747	2	344	4.2	22
4	92	920	1748	2	360	4.2	23
4	93	921	1749	3	7	4.1	1
4	94	922	1750	3	23	4.1	2
4	95	923	1751	3	39	4.1	3
4	96	924	1752	3	55	4.1	4
4	97	925	1753	3	71	4.1	5
4	98	926	1754	3	87	4.1	6
4	99	927	1755	3	103	4.1	7
4	100	928	1756	3	119	4.1	8
4	101	929	1757	3	135	4.1	9
4	102	930	1758	3	151	4.1	10
4	103	931	1759	3	167	4.1	11
4	104	932	1760	3	183	4.1	12

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	105	933	1761	3	199	4.1	13
4	106	934	1762	3	215	4.1	14
4	107	935	1763	3	231	4.1	15
4	108	936	1764	3	247	4.1	16
4	109	937	1765	3	263	4.1	17
4	110	938	1766	3	279	4.1	18
4	111	939	1767	3	295	4.1	19
4	112	940	1768	3	311	4.1	20
4	113	941	1769	3	327	4.1	21
4	114	942	1770	3	343	4.1	22
4	115	943	1771	3	359	4.1	23
4	116	944	1772	3	8	4.2	1
4	117	945	1773	3	24	4.2	2
4	118	946	1774	3	40	4.2	3
4	119	947	1775	3	56	4.2	4
4	120	948	1776	3	72	4.2	5
4	121	949	1777	3	88	4.2	6
4	122	950	1778	3	104	4.2	7
4	123	951	1779	3	120	4.2	8
4	124	952	1780	3	136	4.2	9
4	125	953	1781	3	152	4.2	10
4	126	954	1782	3	168	4.2	11
4	127	955	1783	3	184	4.2	12
4	128	956	1784	3	200	4.2	13
4	129	957	1785	3	216	4.2	14
4	130	958	1786	3	232	4.2	15
4	131	959	1787	3	248	4.2	16
4	132	960	1788	3	264	4.2	17
4	133	961	1789	3	280	4.2	18
4	134	962	1790	3	296	4.2	19
4	135	963	1791	3	312	4.2	20
4	136	964	1792	3	328	4.2	21
4	137	965	1793	3	344	4.2	22
4	138	966	1794	3	360	4.2	23
4	139	967	1795	4	7	4.1	1
4	140	968	1796	4	23	4.1	2
4	141	969	1797	4	39	4.1	3
4	142	970	1798	4	55	4.1	4
4	143	971	1799	4	71	4.1	5
4	144	972	1800	4	87	4.1	6
4	145	973	1801	4	103	4.1	7
4	146	974	1802	4	119	4.1	8
4	147	975	1803	4	135	4.1	9
4	148	976	1804	4	151	4.1	10
4	149	977	1805	4	167	4.1	11
4	150	978	1806	4	183	4.1	12
4	151	979	1807	4	199	4.1	13
4	152	980	1808	4	215	4.1	14
4	153	981	1809	4	231	4.1	15
4	154	982	1810	4	247	4.1	16
4	155	983	1811	4	263	4.1	17
4	156	984	1812	4	279	4.1	18
4	157	985	1813	4	295	4.1	19
4	158	986	1814	4	311	4.1	20
4	159	987	1815	4	327	4.1	21
4	160	988	1816	4	343	4.1	22
4	161	989	1817	4	359	4.1	23
4	162	990	1818	4	8	4.2	1
4	163	991	1819	4	24	4.2	2
4	164	992	1820	4	40	4.2	3
4	165	993	1821	4	56	4.2	4
4	166	994	1822	4	72	4.2	5
4	167	995	1823	4	88	4.2	6
4	168	996	1824	4	104	4.2	7
4	169	997	1825	4	120	4.2	8
4	170	998	1826	4	136	4.2	9
4	171	999	1827	4	152	4.2	10
4	172	1000	1828	4	168	4.2	11
4	173	1001	1829	4	184	4.2	12
4	174	1002	1830	4	200	4.2	13
4	175	1003	1831	4	216	4.2	14
4	176	1004	1832	4	232	4.2	15
4	177	1005	1833	4	248	4.2	16
4	178	1006	1834	4	264	4.2	17
4	179	1007	1835	4	280	4.2	18
4	180	1008	1836	4	296	4.2	19
4	181	1009	1837	4	312	4.2	20
4	182	1010	1838	4	328	4.2	21
4	183	1011	1839	4	344	4.2	22
4	184	1012	1840	4	360	4.2	23
4	185	1013	1841	5	7	4.1	1
4	186	1014	1842	5	23	4.1	2
4	187	1015	1843	5	39	4.1	3
4	188	1016	1844	5	55	4.1	4
4	189	1017	1845	5	71	4.1	5
4	190	1018	1846	5	87	4.1	6
4	191	1019	1847	5	103	4.1	7
4	192	1020	1848	5	119	4.1	8

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	193	1021	1849	5	135	4.1	9
4	194	1022	1850	5	151	4.1	10
4	195	1023	1851	5	167	4.1	11
4	196	1024	1852	5	183	4.1	12
4	197	1025	1853	5	199	4.1	13
4	198	1026	1854	5	215	4.1	14
4	199	1027	1855	5	231	4.1	15
4	200	1028	1856	5	247	4.1	16
4	201	1029	1857	5	263	4.1	17
4	202	1030	1858	5	279	4.1	18
4	203	1031	1859	5	295	4.1	19
4	204	1032	1860	5	311	4.1	20
4	205	1033	1861	5	327	4.1	21
4	206	1034	1862	5	343	4.1	22
4	207	1035	1863	5	359	4.1	23
4	208	1036	1864	5	8	4.2	1
4	209	1037	1865	5	24	4.2	2
4	210	1038	1866	5	40	4.2	3
4	211	1039	1867	5	56	4.2	4
4	212	1040	1868	5	72	4.2	5
4	213	1041	1869	5	88	4.2	6
4	214	1042	1870	5	104	4.2	7
4	215	1043	1871	5	120	4.2	8
4	216	1044	1872	5	136	4.2	9
4	217	1045	1873	5	152	4.2	10
4	218	1046	1874	5	168	4.2	11
4	219	1047	1875	5	184	4.2	12
4	220	1048	1876	5	200	4.2	13
4	221	1049	1877	5	216	4.2	14
4	222	1050	1878	5	232	4.2	15
4	223	1051	1879	5	248	4.2	16
4	224	1052	1880	5	264	4.2	17
4	225	1053	1881	5	280	4.2	18
4	226	1054	1882	5	296	4.2	19
4	227	1055	1883	5	312	4.2	20
4	228	1056	1884	5	328	4.2	21
4	229	1057	1885	5	344	4.2	22
4	230	1058	1886	5	360	4.2	23
4	231	1059	1887	6	7	4.1	1
4	232	1060	1888	6	23	4.1	2
4	233	1061	1889	6	39	4.1	3
4	234	1062	1890	6	55	4.1	4
4	235	1063	1891	6	71	4.1	5
4	236	1064	1892	6	87	4.1	6
4	237	1065	1893	6	103	4.1	7
4	238	1066	1894	6	119	4.1	8
4	239	1067	1895	6	135	4.1	9
4	240	1068	1896	6	151	4.1	10
4	241	1069	1897	6	167	4.1	11
4	242	1070	1898	6	183	4.1	12
4	243	1071	1899	6	199	4.1	13
4	244	1072	1900	6	215	4.1	14
4	245	1073	1901	6	231	4.1	15
4	246	1074	1902	6	247	4.1	16
4	247	1075	1903	6	263	4.1	17
4	248	1076	1904	6	279	4.1	18
4	249	1077	1905	6	295	4.1	19
4	250	1078	1906	6	311	4.1	20
4	251	1079	1907	6	327	4.1	21
4	252	1080	1908	6	343	4.1	22
4	253	1081	1909	6	359	4.1	23
4	254	1082	1910	6	8	4.2	1
4	255	1083	1911	6	24	4.2	2
4	256	1084	1912	6	40	4.2	3
4	257	1085	1913	6	56	4.2	4
4	258	1086	1914	6	72	4.2	5
4	259	1087	1915	6	88	4.2	6
4	260	1088	1916	6	104	4.2	7
4	261	1089	1917	6	120	4.2	8
4	262	1090	1918	6	136	4.2	9
4	263	1091	1919	6	152	4.2	10
4	264	1092	1920	6	168	4.2	11
4	265	1093	1921	6	184	4.2	12
4	266	1094	1922	6	200	4.2	13
4	267	1095	1923	6	216	4.2	14
4	268	1096	1924	6	232	4.2	15
4	269	1097	1925	6	248	4.2	16
4	270	1098	1926	6	264	4.2	17
4	271	1099	1927	6	280	4.2	18
4	272	1100	1928	6	296	4.2	19
4	273	1101	1929	6	312	4.2	20
4	274	1102	1930	6	328	4.2	21
4	275	1103	1931	6	344	4.2	22
4	276	1104	1932	6	360	4.2	23
4	277	-	1933	7	7	4.1	1
4	278	-	1934	7	23	4.1	2
4	279	-	1935	7	39	4.1	3
4	280	-	1936	7	55	4.1	4

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	281	-	1937	7	71	4.1	5
4	282	-	1938	7	87	4.1	6
4	283	-	1939	7	103	4.1	7
4	284	-	1940	7	119	4.1	8
4	285	-	1941	7	135	4.1	9
4	286	-	1942	7	151	4.1	10
4	287	-	1943	7	167	4.1	11
4	288	-	1944	7	183	4.1	12
4	289	-	1945	7	199	4.1	13
4	290	-	1946	7	215	4.1	14
4	291	-	1947	7	231	4.1	15
4	292	-	1948	7	247	4.1	16
4	293	-	1949	7	263	4.1	17
4	294	-	1950	7	279	4.1	18
4	295	-	1951	7	295	4.1	19
4	296	-	1952	7	311	4.1	20
4	297	-	1953	7	327	4.1	21
4	298	-	1954	7	343	4.1	22
4	299	-	1955	7	359	4.1	23
4	300	-	1956	7	8	4.2	1
4	301	-	1957	7	24	4.2	2
4	302	-	1958	7	40	4.2	3
4	303	-	1959	7	56	4.2	4
4	304	-	1960	7	72	4.2	5
4	305	-	1961	7	88	4.2	6
4	306	-	1962	7	104	4.2	7
4	307	-	1963	7	120	4.2	8
4	308	-	1964	7	136	4.2	9
4	309	-	1965	7	152	4.2	10
4	310	-	1966	7	168	4.2	11
4	311	-	1967	7	184	4.2	12
4	312	-	1968	7	200	4.2	13
4	313	-	1969	7	216	4.2	14
4	314	-	1970	7	232	4.2	15
4	315	-	1971	7	248	4.2	16
4	316	-	1972	7	264	4.2	17
4	317	-	1973	7	280	4.2	18
4	318	-	1974	7	296	4.2	19
4	319	-	1975	7	312	4.2	20
4	320	-	1976	7	328	4.2	21
4	321	-	1977	7	344	4.2	22
4	322	-	1978	7	360	4.2	23
4	323	-	1979	8	7	4.1	1
4	324	-	1980	8	23	4.1	2
4	325	-	1981	8	39	4.1	3
4	326	-	1982	8	55	4.1	4
4	327	-	1983	8	71	4.1	5
4	328	-	1984	8	87	4.1	6
4	329	-	1985	8	103	4.1	7
4	330	-	1986	8	119	4.1	8
4	331	-	1987	8	135	4.1	9
4	332	-	1988	8	151	4.1	10
4	333	-	1989	8	167	4.1	11
4	334	-	1990	8	183	4.1	12
4	335	-	1991	8	199	4.1	13
4	336	-	1992	8	215	4.1	14
4	337	-	1993	8	231	4.1	15
4	338	-	1994	8	247	4.1	16
4	339	-	1995	8	263	4.1	17
4	340	-	1996	8	279	4.1	18
4	341	-	1997	8	295	4.1	19
4	342	-	1998	8	311	4.1	20
4	343	-	1999	8	327	4.1	21
4	344	-	2000	8	343	4.1	22
4	345	-	2001	8	359	4.1	23
4	346	-	2002	8	8	4.2	1
4	347	-	2003	8	24	4.2	2
4	348	-	2004	8	40	4.2	3
4	349	-	2005	8	56	4.2	4
4	350	-	2006	8	72	4.2	5
4	351	-	2007	8	88	4.2	6
4	352	-	2008	8	104	4.2	7
4	353	-	2009	8	120	4.2	8
4	354	-	2010	8	136	4.2	9
4	355	-	2011	8	152	4.2	10
4	356	-	2012	8	168	4.2	11
4	357	-	2013	8	184	4.2	12
4	358	-	2014	8	200	4.2	13
4	359	-	2015	8	216	4.2	14
4	360	-	2016	8	232	4.2	15
4	361	-	2017	8	248	4.2	16
4	362	-	2018	8	264	4.2	17
4	363	-	2019	8	280	4.2	18
4	364	-	2020	8	296	4.2	19
4	365	-	2021	8	312	4.2	20
4	366	-	2022	8	328	4.2	21
4	367	-	2023	8	344	4.2	22
4	368	-	2024	8	360	4.2	23

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	369	-	2025	9	7	4.1	1
4	370	-	2026	9	23	4.1	2
4	371	-	2027	9	39	4.1	3
4	372	-	2028	9	55	4.1	4
4	373	-	2029	9	71	4.1	5
4	374	-	2030	9	87	4.1	6
4	375	-	2031	9	103	4.1	7
4	376	-	2032	9	119	4.1	8
4	377	-	2033	9	135	4.1	9
4	378	-	2034	9	151	4.1	10
4	379	-	2035	9	167	4.1	11
4	380	-	2036	9	183	4.1	12
4	381	-	2037	9	199	4.1	13
4	382	-	2038	9	215	4.1	14
4	383	-	2039	9	231	4.1	15
4	384	-	2040	9	247	4.1	16
4	385	-	2041	9	263	4.1	17
4	386	-	2042	9	279	4.1	18
4	387	-	2043	9	295	4.1	19
4	388	-	2044	9	311	4.1	20
4	389	-	2045	9	327	4.1	21
4	390	-	2046	9	343	4.1	22
4	391	-	2047	9	359	4.1	23
4	392	-	2048	9	8	4.2	1
4	393	-	2049	9	24	4.2	2
4	394	-	2050	9	40	4.2	3
4	395	-	2051	9	56	4.2	4
4	396	-	2052	9	72	4.2	5
4	397	-	2053	9	88	4.2	6
4	398	-	2054	9	104	4.2	7
4	399	-	2055	9	120	4.2	8
4	400	-	2056	9	136	4.2	9
4	401	-	2057	9	152	4.2	10
4	402	-	2058	9	168	4.2	11
4	403	-	2059	9	184	4.2	12
4	404	-	2060	9	200	4.2	13
4	405	-	2061	9	216	4.2	14
4	406	-	2062	9	232	4.2	15
4	407	-	2063	9	248	4.2	16
4	408	-	2064	9	264	4.2	17
4	409	-	2065	9	280	4.2	18
4	410	-	2066	9	296	4.2	19
4	411	-	2067	9	312	4.2	20
4	412	-	2068	9	328	4.2	21

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	413	-	2069	9	344	4.2	22
4	414	-	2070	9	360	4.2	23
4	415	-	2071	10	7	4.1	1
4	416	-	2072	10	23	4.1	2
4	417	-	2073	10	39	4.1	3
4	418	-	2074	10	55	4.1	4
4	419	-	2075	10	71	4.1	5
4	420	-	2076	10	87	4.1	6
4	421	-	2077	10	103	4.1	7
4	422	-	2078	10	119	4.1	8
4	423	-	2079	10	135	4.1	9
4	424	-	2080	10	151	4.1	10
4	425	-	2081	10	167	4.1	11
4	426	-	2082	10	183	4.1	12
4	427	-	2083	10	199	4.1	13
4	428	-	2084	10	215	4.1	14
4	429	-	2085	10	231	4.1	15
4	430	-	2086	10	247	4.1	16
4	431	-	2087	10	263	4.1	17
4	432	-	2088	10	279	4.1	18
4	433	-	2089	10	295	4.1	19
4	434	-	2090	10	311	4.1	20
4	435	-	2091	10	327	4.1	21
4	436	-	2092	10	343	4.1	22
4	437	-	2093	10	359	4.1	23
4	438	-	2094	10	8	4.2	1
4	439	-	2095	10	24	4.2	2
4	440	-	2096	10	40	4.2	3
4	441	-	2097	10	56	4.2	4
4	442	-	2098	10	72	4.2	5
4	443	-	2099	10	88	4.2	6
4	444	-	2100	10	104	4.2	7
4	445	-	2101	10	120	4.2	8
4	446	-	2102	10	136	4.2	9
4	447	-	2103	10	152	4.2	10
4	448	-	2104	10	168	4.2	11
4	449	-	2105	10	184	4.2	12
4	450	-	2106	10	200	4.2	13
4	451	-	2107	10	216	4.2	14
4	452	-	2108	10	232	4.2	15
4	453	-	2109	10	248	4.2	16
4	454	-	2110	10	264	4.2	17
4	455	-	2111	10	280	4.2	18
4	456	-	2112	10	296	4.2	19

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	457	-	2113	10	312	4.2	20
4	458	-	2114	10	328	4.2	21
4	459	-	2115	10	344	4.2	22
4	460	-	2116	10	360	4.2	23
4	461	-	2117	11	7	4.1	1
4	462	-	2118	11	23	4.1	2
4	463	-	2119	11	39	4.1	3
4	464	-	2120	11	55	4.1	4
4	465	-	2121	11	71	4.1	5
4	466	-	2122	11	87	4.1	6
4	467	-	2123	11	103	4.1	7
4	468	-	2124	11	119	4.1	8
4	469	-	2125	11	135	4.1	9
4	470	-	2126	11	151	4.1	10
4	471	-	2127	11	167	4.1	11
4	472	-	2128	11	183	4.1	12
4	473	-	2129	11	199	4.1	13
4	474	-	2130	11	215	4.1	14
4	475	-	2131	11	231	4.1	15
4	476	-	2132	11	247	4.1	16
4	477	-	2133	11	263	4.1	17
4	478	-	2134	11	279	4.1	18
4	479	-	2135	11	295	4.1	19
4	480	-	2136	11	311	4.1	20
4	481	-	2137	11	327	4.1	21
4	482	-	2138	11	343	4.1	22
4	483	-	2139	11	359	4.1	23
4	484	-	2140	11	8	4.2	1
4	485	-	2141	11	24	4.2	2
4	486	-	2142	11	40	4.2	3
4	487	-	2143	11	56	4.2	4
4	488	-	2144	11	72	4.2	5
4	489	-	2145	11	88	4.2	6
4	490	-	2146	11	104	4.2	7
4	491	-	2147	11	120	4.2	8
4	492	-	2148	11	136	4.2	9
4	493	-	2149	11	152	4.2	10
4	494	-	2150	11	168	4.2	11
4	495	-	2151	11	184	4.2	12
4	496	-	2152	11	200	4.2	13
4	497	-	2153	11	216	4.2	14
4	498	-	2154	11	232	4.2	15
4	499	-	2155	11	248	4.2	16
4	500	-	2156	11	264	4.2	17

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	501	-	2157	11	280	4.2	18
4	502	-	2158	11	296	4.2	19
4	503	-	2159	11	312	4.2	20
4	504	-	2160	11	328	4.2	21
4	505	-	2161	11	344	4.2	22
4	506	-	2162	11	360	4.2	23
4	507	-	2163	12	7	4.1	1
4	508	-	2164	12	23	4.1	2
4	509	-	2165	12	39	4.1	3
4	510	-	2166	12	55	4.1	4
4	511	-	2167	12	71	4.1	5
4	512	-	2168	12	87	4.1	6
4	513	-	2169	12	103	4.1	7
4	514	-	2170	12	119	4.1	8
4	515	-	2171	12	135	4.1	9
4	516	-	2172	12	151	4.1	10
4	517	-	2173	12	167	4.1	11
4	518	-	2174	12	183	4.1	12
4	519	-	2175	12	199	4.1	13
4	520	-	2176	12	215	4.1	14
4	521	-	2177	12	231	4.1	15
4	522	-	2178	12	247	4.1	16
4	523	-	2179	12	263	4.1	17
4	524	-	2180	12	279	4.1	18
4	525	-	2181	12	295	4.1	19
4	526	-	2182	12	311	4.1	20
4	527	-	2183	12	327	4.1	21
4	528	-	2184	12	343	4.1	22
4	529	-	2185	12	359	4.1	23
4	530	-	2186	12	8	4.2	1
4	531	-	2187	12	24	4.2	2
4	532	-	2188	12	40	4.2	3
4	533	-	2189	12	56	4.2	4
4	534	-	2190	12	72	4.2	5
4	535	-	2191	12	88	4.2	6
4	536	-	2192	12	104	4.2	7
4	537	-	2193	12	120	4.2	8
4	538	-	2194	12	136	4.2	9
4	539	-	2195	12	152	4.2	10
4	540	-	2196	12	168	4.2	11
4	541	-	2197	12	184	4.2	12
4	542	-	2198	12	200	4.2	13
4	543	-	2199	12	216	4.2	14
4	544	-	2200	12	232	4.2	15

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
4	545	-	2201	12	248	4.2	16
4	546	-	2202	12	264	4.2	17
4	547	-	2203	12	280	4.2	18
4	548	-	2204	12	296	4.2	19
4	549	-	2205	12	312	4.2	20
4	550	-	2206	12	328	4.2	21
4	551	-	2207	12	344	4.2	22
4	552	-	2208	12	360	4.2	23
5	1	1105	2209	1	9	5.1	1
5	2	1106	2210	1	25	5.1	2
5	3	1107	2211	1	41	5.1	3
5	4	1108	2212	1	57	5.1	4
5	5	1109	2213	1	73	5.1	5
5	6	1110	2214	1	89	5.1	6
5	7	1111	2215	1	105	5.1	7
5	8	1112	2216	1	121	5.1	8
5	9	1113	2217	1	137	5.1	9
5	10	1114	2218	1	153	5.1	10
5	11	1115	2219	1	169	5.1	11
5	12	1116	2220	1	185	5.1	12
5	13	1117	2221	1	201	5.1	13
5	14	1118	2222	1	217	5.1	14
5	15	1119	2223	1	233	5.1	15
5	16	1120	2224	1	249	5.1	16
5	17	1121	2225	1	265	5.1	17
5	18	1122	2226	1	281	5.1	18
5	19	1123	2227	1	297	5.1	19
5	20	1124	2228	1	313	5.1	20
5	21	1125	2229	1	329	5.1	21
5	22	1126	2230	1	345	5.1	22
5	23	1127	2231	1	361	5.1	23
5	24	1128	2232	1	10	5.2	1
5	25	1129	2233	1	26	5.2	2
5	26	1130	2234	1	42	5.2	3
5	27	1131	2235	1	58	5.2	4
5	28	1132	2236	1	74	5.2	5
5	29	1133	2237	1	90	5.2	6
5	30	1134	2238	1	106	5.2	7
5	31	1135	2239	1	122	5.2	8
5	32	1136	2240	1	138	5.2	9
5	33	1137	2241	1	154	5.2	10
5	34	1138	2242	1	170	5.2	11
5	35	1139	2243	1	186	5.2	12
5	36	1140	2244	1	202	5.2	13

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	37	1141	2245	1	218	5.2	14
5	38	1142	2246	1	234	5.2	15
5	39	1143	2247	1	250	5.2	16
5	40	1144	2248	1	266	5.2	17
5	41	1145	2249	1	282	5.2	18
5	42	1146	2250	1	298	5.2	19
5	43	1147	2251	1	314	5.2	20
5	44	1148	2252	1	330	5.2	21
5	45	1149	2253	1	346	5.2	22
5	46	1150	2254	1	362	5.2	23
5	47	1151	2255	2	9	5.1	1
5	48	1152	2256	2	25	5.1	2
5	49	1153	2257	2	41	5.1	3
5	50	1154	2258	2	57	5.1	4
5	51	1155	2259	2	73	5.1	5
5	52	1156	2260	2	89	5.1	6
5	53	1157	2261	2	105	5.1	7
5	54	1158	2262	2	121	5.1	8
5	55	1159	2263	2	137	5.1	9
5	56	1160	2264	2	153	5.1	10
5	57	1161	2265	2	169	5.1	11
5	58	1162	2266	2	185	5.1	12
5	59	1163	2267	2	201	5.1	13
5	60	1164	2268	2	217	5.1	14
5	61	1165	2269	2	233	5.1	15
5	62	1166	2270	2	249	5.1	16
5	63	1167	2271	2	265	5.1	17
5	64	1168	2272	2	281	5.1	18
5	65	1169	2273	2	297	5.1	19
5	66	1170	2274	2	313	5.1	20
5	67	1171	2275	2	329	5.1	21
5	68	1172	2276	2	345	5.1	22
5	69	1173	2277	2	361	5.1	23
5	70	1174	2278	2	10	5.2	1
5	71	1175	2279	2	26	5.2	2
5	72	1176	2280	2	42	5.2	3
5	73	1177	2281	2	58	5.2	4
5	74	1178	2282	2	74	5.2	5
5	75	1179	2283	2	90	5.2	6
5	76	1180	2284	2	106	5.2	7
5	77	1181	2285	2	122	5.2	8
5	78	1182	2286	2	138	5.2	9
5	79	1183	2287	2	154	5.2	10
5	80	1184	2288	2	170	5.2	11

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	81	1185	2289	2	186	5.2	12
5	82	1186	2290	2	202	5.2	13
5	83	1187	2291	2	218	5.2	14
5	84	1188	2292	2	234	5.2	15
5	85	1189	2293	2	250	5.2	16
5	86	1190	2294	2	266	5.2	17
5	87	1191	2295	2	282	5.2	18
5	88	1192	2296	2	298	5.2	19
5	89	1193	2297	2	314	5.2	20
5	90	1194	2298	2	330	5.2	21
5	91	1195	2299	2	346	5.2	22
5	92	1196	2300	2	362	5.2	23
5	93	1197	2301	3	9	5.1	1
5	94	1198	2302	3	25	5.1	2
5	95	1199	2303	3	41	5.1	3
5	96	1200	2304	3	57	5.1	4
5	97	1201	2305	3	73	5.1	5
5	98	1202	2306	3	89	5.1	6
5	99	1203	2307	3	105	5.1	7
5	100	1204	2308	3	121	5.1	8
5	101	1205	2309	3	137	5.1	9
5	102	1206	2310	3	153	5.1	10
5	103	1207	2311	3	169	5.1	11
5	104	1208	2312	3	185	5.1	12
5	105	1209	2313	3	201	5.1	13
5	106	1210	2314	3	217	5.1	14
5	107	1211	2315	3	233	5.1	15
5	108	1212	2316	3	249	5.1	16
5	109	1213	2317	3	265	5.1	17
5	110	1214	2318	3	281	5.1	18
5	111	1215	2319	3	297	5.1	19
5	112	1216	2320	3	313	5.1	20
5	113	1217	2321	3	329	5.1	21
5	114	1218	2322	3	345	5.1	22
5	115	1219	2323	3	361	5.1	23
5	116	1220	2324	3	10	5.2	1
5	117	1221	2325	3	26	5.2	2
5	118	1222	2326	3	42	5.2	3
5	119	1223	2327	3	58	5.2	4
5	120	1224	2328	3	74	5.2	5
5	121	1225	2329	3	90	5.2	6
5	122	1226	2330	3	106	5.2	7
5	123	1227	2331	3	122	5.2	8
5	124	1228	2332	3	138	5.2	9
5	125	1229	2333	3	154	5.2	10
5	126	1230	2334	3	170	5.2	11
5	127	1231	2335	3	186	5.2	12
5	128	1232	2336	3	202	5.2	13
5	129	1233	2337	3	218	5.2	14
5	130	1234	2338	3	234	5.2	15
5	131	1235	2339	3	250	5.2	16
5	132	1236	2340	3	266	5.2	17
5	133	1237	2341	3	282	5.2	18
5	134	1238	2342	3	298	5.2	19
5	135	1239	2343	3	314	5.2	20
5	136	1240	2344	3	330	5.2	21
5	137	1241	2345	3	346	5.2	22
5	138	1242	2346	3	362	5.2	23
5	139	1243	2347	4	9	5.1	1
5	140	1244	2348	4	25	5.1	2
5	141	1245	2349	4	41	5.1	3
5	142	1246	2350	4	57	5.1	4
5	143	1247	2351	4	73	5.1	5
5	144	1248	2352	4	89	5.1	6
5	145	1249	2353	4	105	5.1	7
5	146	1250	2354	4	121	5.1	8
5	147	1251	2355	4	137	5.1	9
5	148	1252	2356	4	153	5.1	10
5	149	1253	2357	4	169	5.1	11
5	150	1254	2358	4	185	5.1	12
5	151	1255	2359	4	201	5.1	13
5	152	1256	2360	4	217	5.1	14
5	153	1257	2361	4	233	5.1	15
5	154	1258	2362	4	249	5.1	16
5	155	1259	2363	4	265	5.1	17
5	156	1260	2364	4	281	5.1	18
5	157	1261	2365	4	297	5.1	19
5	158	1262	2366	4	313	5.1	20
5	159	1263	2367	4	329	5.1	21
5	160	1264	2368	4	345	5.1	22
5	161	1265	2369	4	361	5.1	23
5	162	1266	2370	4	10	5.2	1
5	163	1267	2371	4	26	5.2	2
5	164	1268	2372	4	42	5.2	3
5	165	1269	2373	4	58	5.2	4
5	166	1270	2374	4	74	5.2	5
5	167	1271	2375	4	90	5.2	6
5	168	1272	2376	4	106	5.2	7

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	169	1273	2377	4	122	5.2	8
5	170	1274	2378	4	138	5.2	9
5	171	1275	2379	4	154	5.2	10
5	172	1276	2380	4	170	5.2	11
5	173	1277	2381	4	186	5.2	12
5	174	1278	2382	4	202	5.2	13
5	175	1279	2383	4	218	5.2	14
5	176	1280	2384	4	234	5.2	15
5	177	1281	2385	4	250	5.2	16
5	178	1282	2386	4	266	5.2	17
5	179	1283	2387	4	282	5.2	18
5	180	1284	2388	4	298	5.2	19
5	181	1285	2389	4	314	5.2	20
5	182	1286	2390	4	330	5.2	21
5	183	1287	2391	4	346	5.2	22
5	184	1288	2392	4	362	5.2	23
5	185	1289	2393	5	9	5.1	1
5	186	1290	2394	5	25	5.1	2
5	187	1291	2395	5	41	5.1	3
5	188	1292	2396	5	57	5.1	4
5	189	1293	2397	5	73	5.1	5
5	190	1294	2398	5	89	5.1	6
5	191	1295	2399	5	105	5.1	7
5	192	1296	2400	5	121	5.1	8
5	193	1297	2401	5	137	5.1	9
5	194	1298	2402	5	153	5.1	10
5	195	1299	2403	5	169	5.1	11
5	196	1300	2404	5	185	5.1	12
5	197	1301	2405	5	201	5.1	13
5	198	1302	2406	5	217	5.1	14
5	199	1303	2407	5	233	5.1	15
5	200	1304	2408	5	249	5.1	16
5	201	1305	2409	5	265	5.1	17
5	202	1306	2410	5	281	5.1	18
5	203	1307	2411	5	297	5.1	19
5	204	1308	2412	5	313	5.1	20
5	205	1309	2413	5	329	5.1	21
5	206	1310	2414	5	345	5.1	22
5	207	1311	2415	5	361	5.1	23
5	208	1312	2416	5	10	5.2	1
5	209	1313	2417	5	26	5.2	2
5	210	1314	2418	5	42	5.2	3
5	211	1315	2419	5	58	5.2	4
5	212	1316	2420	5	74	5.2	5
5	213	1317	2421	5	90	5.2	6
5	214	1318	2422	5	106	5.2	7
5	215	1319	2423	5	122	5.2	8
5	216	1320	2424	5	138	5.2	9
5	217	1321	2425	5	154	5.2	10
5	218	1322	2426	5	170	5.2	11
5	219	1323	2427	5	186	5.2	12
5	220	1324	2428	5	202	5.2	13
5	221	1325	2429	5	218	5.2	14
5	222	1326	2430	5	234	5.2	15
5	223	1327	2431	5	250	5.2	16
5	224	1328	2432	5	266	5.2	17
5	225	1329	2433	5	282	5.2	18
5	226	1330	2434	5	298	5.2	19
5	227	1331	2435	5	314	5.2	20
5	228	1332	2436	5	330	5.2	21
5	229	1333	2437	5	346	5.2	22
5	230	1334	2438	5	362	5.2	23
5	231	1335	2439	6	9	5.1	1
5	232	1336	2440	6	25	5.1	2
5	233	1337	2441	6	41	5.1	3
5	234	1338	2442	6	57	5.1	4
5	235	1339	2443	6	73	5.1	5
5	236	1340	2444	6	89	5.1	6
5	237	1341	2445	6	105	5.1	7
5	238	1342	2446	6	121	5.1	8
5	239	1343	2447	6	137	5.1	9
5	240	1344	2448	6	153	5.1	10
5	241	1345	2449	6	169	5.1	11
5	242	1346	2450	6	185	5.1	12
5	243	1347	2451	6	201	5.1	13
5	244	1348	2452	6	217	5.1	14
5	245	1349	2453	6	233	5.1	15
5	246	1350	2454	6	249	5.1	16
5	247	1351	2455	6	265	5.1	17
5	248	1352	2456	6	281	5.1	18
5	249	1353	2457	6	297	5.1	19
5	250	1354	2458	6	313	5.1	20
5	251	1355	2459	6	329	5.1	21
5	252	1356	2460	6	345	5.1	22
5	253	1357	2461	6	361	5.1	23
5	254	1358	2462	6	10	5.2	1
5	255	1359	2463	6	26	5.2	2
5	256	1360	2464	6	42	5.2	3

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	257	1361	2465	6	58	5.2	4
5	258	1362	2466	6	74	5.2	5
5	259	1363	2467	6	90	5.2	6
5	260	1364	2468	6	106	5.2	7
5	261	1365	2469	6	122	5.2	8
5	262	1366	2470	6	138	5.2	9
5	263	1367	2471	6	154	5.2	10
5	264	1368	2472	6	170	5.2	11
5	265	1369	2473	6	186	5.2	12
5	266	1370	2474	6	202	5.2	13
5	267	1371	2475	6	218	5.2	14
5	268	1372	2476	6	234	5.2	15
5	269	1373	2477	6	250	5.2	16
5	270	1374	2478	6	266	5.2	17
5	271	1375	2479	6	282	5.2	18
5	272	1376	2480	6	298	5.2	19
5	273	1377	2481	6	314	5.2	20
5	274	1378	2482	6	330	5.2	21
5	275	1379	2483	6	346	5.2	22
5	276	1380	2484	6	362	5.2	23
5	277	-	2485	7	9	5.1	1
5	278	-	2486	7	25	5.1	2
5	279	-	2487	7	41	5.1	3
5	280	-	2488	7	57	5.1	4
5	281	-	2489	7	73	5.1	5
5	282	-	2490	7	89	5.1	6
5	283	-	2491	7	105	5.1	7
5	284	-	2492	7	121	5.1	8
5	285	-	2493	7	137	5.1	9
5	286	-	2494	7	153	5.1	10
5	287	-	2495	7	169	5.1	11
5	288	-	2496	7	185	5.1	12
5	289	-	2497	7	201	5.1	13
5	290	-	2498	7	217	5.1	14
5	291	-	2499	7	233	5.1	15
5	292	-	2500	7	249	5.1	16
5	293	-	2501	7	265	5.1	17
5	294	-	2502	7	281	5.1	18
5	295	-	2503	7	297	5.1	19
5	296	-	2504	7	313	5.1	20
5	297	-	2505	7	329	5.1	21
5	298	-	2506	7	345	5.1	22
5	299	-	2507	7	361	5.1	23
5	300	-	2508	7	10	5.2	1
5	301	-	2509	7	26	5.2	2

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	302	-	2510	7	42	5.2	3
5	303	-	2511	7	58	5.2	4
5	304	-	2512	7	74	5.2	5
5	305	-	2513	7	90	5.2	6
5	306	-	2514	7	106	5.2	7
5	307	-	2515	7	122	5.2	8
5	308	-	2516	7	138	5.2	9
5	309	-	2517	7	154	5.2	10
5	310	-	2518	7	170	5.2	11
5	311	-	2519	7	186	5.2	12
5	312	-	2520	7	202	5.2	13
5	313	-	2521	7	218	5.2	14
5	314	-	2522	7	234	5.2	15
5	315	-	2523	7	250	5.2	16
5	316	-	2524	7	266	5.2	17
5	317	-	2525	7	282	5.2	18
5	318	-	2526	7	298	5.2	19
5	319	-	2527	7	314	5.2	20
5	320	-	2528	7	330	5.2	21
5	321	-	2529	7	346	5.2	22
5	322	-	2530	7	362	5.2	23
5	323	-	2531	8	9	5.1	1
5	324	-	2532	8	25	5.1	2
5	325	-	2533	8	41	5.1	3
5	326	-	2534	8	57	5.1	4
5	327	-	2535	8	73	5.1	5
5	328	-	2536	8	89	5.1	6
5	329	-	2537	8	105	5.1	7
5	330	-	2538	8	121	5.1	8
5	331	-	2539	8	137	5.1	9
5	332	-	2540	8	153	5.1	10
5	333	-	2541	8	169	5.1	11
5	334	-	2542	8	185	5.1	12
5	335	-	2543	8	201	5.1	13
5	336	-	2544	8	217	5.1	14
5	337	-	2545	8	233	5.1	15
5	338	-	2546	8	249	5.1	16
5	339	-	2547	8	265	5.1	17
5	340	-	2548	8	281	5.1	18
5	341	-	2549	8	297	5.1	19
5	342	-	2550	8	313	5.1	20
5	343	-	2551	8	329	5.1	21
5	344	-	2552	8	345	5.1	22
5	345	-	2553	8	361	5.1	23
5	346	-	2554	8	10	5.2	1

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	347	-	2555	8	26	5.2	2
5	348	-	2556	8	42	5.2	3
5	349	-	2557	8	58	5.2	4
5	350	-	2558	8	74	5.2	5
5	351	-	2559	8	90	5.2	6
5	352	-	2560	8	106	5.2	7
5	353	-	2561	8	122	5.2	8
5	354	-	2562	8	138	5.2	9
5	355	-	2563	8	154	5.2	10
5	356	-	2564	8	170	5.2	11
5	357	-	2565	8	186	5.2	12
5	358	-	2566	8	202	5.2	13
5	359	-	2567	8	218	5.2	14
5	360	-	2568	8	234	5.2	15
5	361	-	2569	8	250	5.2	16
5	362	-	2570	8	266	5.2	17
5	363	-	2571	8	282	5.2	18
5	364	-	2572	8	298	5.2	19
5	365	-	2573	8	314	5.2	20
5	366	-	2574	8	330	5.2	21
5	367	-	2575	8	346	5.2	22
5	368	-	2576	8	362	5.2	23
5	369	-	2577	9	9	5.1	1
5	370	-	2578	9	25	5.1	2
5	371	-	2579	9	41	5.1	3
5	372	-	2580	9	57	5.1	4
5	373	-	2581	9	73	5.1	5
5	374	-	2582	9	89	5.1	6
5	375	-	2583	9	105	5.1	7
5	376	-	2584	9	121	5.1	8
5	377	-	2585	9	137	5.1	9
5	378	-	2586	9	153	5.1	10
5	379	-	2587	9	169	5.1	11
5	380	-	2588	9	185	5.1	12
5	381	-	2589	9	201	5.1	13
5	382	-	2590	9	217	5.1	14
5	383	-	2591	9	233	5.1	15
5	384	-	2592	9	249	5.1	16
5	385	-	2593	9	265	5.1	17
5	386	-	2594	9	281	5.1	18
5	387	-	2595	9	297	5.1	19
5	388	-	2596	9	313	5.1	20
5	389	-	2597	9	329	5.1	21
5	390	-	2598	9	345	5.1	22
5	391	-	2599	9	361	5.1	23

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	392	-	2600	9	10	5.2	1
5	393	-	2601	9	26	5.2	2
5	394	-	2602	9	42	5.2	3
5	395	-	2603	9	58	5.2	4
5	396	-	2604	9	74	5.2	5
5	397	-	2605	9	90	5.2	6
5	398	-	2606	9	106	5.2	7
5	399	-	2607	9	122	5.2	8
5	400	-	2608	9	138	5.2	9
5	401	-	2609	9	154	5.2	10
5	402	-	2610	9	170	5.2	11
5	403	-	2611	9	186	5.2	12
5	404	-	2612	9	202	5.2	13
5	405	-	2613	9	218	5.2	14
5	406	-	2614	9	234	5.2	15
5	407	-	2615	9	250	5.2	16
5	408	-	2616	9	266	5.2	17
5	409	-	2617	9	282	5.2	18
5	410	-	2618	9	298	5.2	19
5	411	-	2619	9	314	5.2	20
5	412	-	2620	9	330	5.2	21
5	413	-	2621	9	346	5.2	22
5	414	-	2622	9	362	5.2	23
5	415	-	2623	10	9	5.1	1
5	416	-	2624	10	25	5.1	2
5	417	-	2625	10	41	5.1	3
5	418	-	2626	10	57	5.1	4
5	419	-	2627	10	73	5.1	5
5	420	-	2628	10	89	5.1	6
5	421	-	2629	10	105	5.1	7
5	422	-	2630	10	121	5.1	8
5	423	-	2631	10	137	5.1	9
5	424	-	2632	10	153	5.1	10
5	425	-	2633	10	169	5.1	11
5	426	-	2634	10	185	5.1	12
5	427	-	2635	10	201	5.1	13
5	428	-	2636	10	217	5.1	14
5	429	-	2637	10	233	5.1	15
5	430	-	2638	10	249	5.1	16
5	431	-	2639	10	265	5.1	17
5	432	-	2640	10	281	5.1	18
5	433	-	2641	10	297	5.1	19
5	434	-	2642	10	313	5.1	20
5	435	-	2643	10	329	5.1	21
5	436	-	2644	10	345	5.1	22

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	437	-	2645	10	361	5.1	23
5	438	-	2646	10	10	5.2	1
5	439	-	2647	10	26	5.2	2
5	440	-	2648	10	42	5.2	3
5	441	-	2649	10	58	5.2	4
5	442	-	2650	10	74	5.2	5
5	443	-	2651	10	90	5.2	6
5	444	-	2652	10	106	5.2	7
5	445	-	2653	10	122	5.2	8
5	446	-	2654	10	138	5.2	9
5	447	-	2655	10	154	5.2	10
5	448	-	2656	10	170	5.2	11
5	449	-	2657	10	186	5.2	12
5	450	-	2658	10	202	5.2	13
5	451	-	2659	10	218	5.2	14
5	452	-	2660	10	234	5.2	15
5	453	-	2661	10	250	5.2	16
5	454	-	2662	10	266	5.2	17
5	455	-	2663	10	282	5.2	18
5	456	-	2664	10	298	5.2	19
5	457	-	2665	10	314	5.2	20
5	458	-	2666	10	330	5.2	21
5	459	-	2667	10	346	5.2	22
5	460	-	2668	10	362	5.2	23
5	461	-	2669	11	9	5.1	1
5	462	-	2670	11	25	5.1	2
5	463	-	2671	11	41	5.1	3
5	464	-	2672	11	57	5.1	4
5	465	-	2673	11	73	5.1	5
5	466	-	2674	11	89	5.1	6
5	467	-	2675	11	105	5.1	7
5	468	-	2676	11	121	5.1	8
5	469	-	2677	11	137	5.1	9
5	470	-	2678	11	153	5.1	10
5	471	-	2679	11	169	5.1	11
5	472	-	2680	11	185	5.1	12
5	473	-	2681	11	201	5.1	13
5	474	-	2682	11	217	5.1	14
5	475	-	2683	11	233	5.1	15
5	476	-	2684	11	249	5.1	16
5	477	-	2685	11	265	5.1	17
5	478	-	2686	11	281	5.1	18
5	479	-	2687	11	297	5.1	19
5	480	-	2688	11	313	5.1	20
5	481	-	2689	11	329	5.1	21

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	482	-	2690	11	345	5.1	22
5	483	-	2691	11	361	5.1	23
5	484	-	2692	11	10	5.2	1
5	485	-	2693	11	26	5.2	2
5	486	-	2694	11	42	5.2	3
5	487	-	2695	11	58	5.2	4
5	488	-	2696	11	74	5.2	5
5	489	-	2697	11	90	5.2	6
5	490	-	2698	11	106	5.2	7
5	491	-	2699	11	122	5.2	8
5	492	-	2700	11	138	5.2	9
5	493	-	2701	11	154	5.2	10
5	494	-	2702	11	170	5.2	11
5	495	-	2703	11	186	5.2	12
5	496	-	2704	11	202	5.2	13
5	497	-	2705	11	218	5.2	14
5	498	-	2706	11	234	5.2	15
5	499	-	2707	11	250	5.2	16
5	500	-	2708	11	266	5.2	17
5	501	-	2709	11	282	5.2	18
5	502	-	2710	11	298	5.2	19
5	503	-	2711	11	314	5.2	20
5	504	-	2712	11	330	5.2	21
5	505	-	2713	11	346	5.2	22
5	506	-	2714	11	362	5.2	23
5	507	-	2715	12	9	5.1	1
5	508	-	2716	12	25	5.1	2
5	509	-	2717	12	41	5.1	3
5	510	-	2718	12	57	5.1	4
5	511	-	2719	12	73	5.1	5
5	512	-	2720	12	89	5.1	6
5	513	-	2721	12	105	5.1	7
5	514	-	2722	12	121	5.1	8
5	515	-	2723	12	137	5.1	9
5	516	-	2724	12	153	5.1	10
5	517	-	2725	12	169	5.1	11
5	518	-	2726	12	185	5.1	12
5	519	-	2727	12	201	5.1	13
5	520	-	2728	12	217	5.1	14
5	521	-	2729	12	233	5.1	15
5	522	-	2730	12	249	5.1	16
5	523	-	2731	12	265	5.1	17
5	524	-	2732	12	281	5.1	18
5	525	-	2733	12	297	5.1	19
5	526	-	2734	12	313	5.1	20

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
5	527	-	2735	12	329	5.1	21
5	528	-	2736	12	345	5.1	22
5	529	-	2737	12	361	5.1	23
5	530	-	2738	12	10	5.2	1
5	531	-	2739	12	26	5.2	2
5	532	-	2740	12	42	5.2	3
5	533	-	2741	12	58	5.2	4
5	534	-	2742	12	74	5.2	5
5	535	-	2743	12	90	5.2	6
5	536	-	2744	12	106	5.2	7
5	537	-	2745	12	122	5.2	8
5	538	-	2746	12	138	5.2	9
5	539	-	2747	12	154	5.2	10
5	540	-	2748	12	170	5.2	11
5	541	-	2749	12	186	5.2	12
5	542	-	2750	12	202	5.2	13
5	543	-	2751	12	218	5.2	14
5	544	-	2752	12	234	5.2	15
5	545	-	2753	12	250	5.2	16
5	546	-	2754	12	266	5.2	17
5	547	-	2755	12	282	5.2	18
5	548	-	2756	12	298	5.2	19
5	549	-	2757	12	314	5.2	20
5	550	-	2758	12	330	5.2	21
5	551	-	2759	12	346	5.2	22
5	552	-	2760	12	362	5.2	23
6	1	1381	2761	1	11	6.1	1
6	2	1382	2762	1	27	6.1	2
6	3	1383	2763	1	43	6.1	3
6	4	1384	2764	1	59	6.1	4
6	5	1385	2765	1	75	6.1	5
6	6	1386	2766	1	91	6.1	6
6	7	1387	2767	1	107	6.1	7
6	8	1388	2768	1	123	6.1	8
6	9	1389	2769	1	139	6.1	9
6	10	1390	2770	1	155	6.1	10
6	11	1391	2771	1	171	6.1	11
6	12	1392	2772	1	187	6.1	12
6	13	1393	2773	1	203	6.1	13
6	14	1394	2774	1	219	6.1	14
6	15	1395	2775	1	235	6.1	15
6	16	1396	2776	1	251	6.1	16
6	17	1397	2777	1	267	6.1	17
6	18	1398	2778	1	283	6.1	18
6	19	1399	2779	1	299	6.1	19
6	20	1400	2780	1	315	6.1	20
6	21	1401	2781	1	331	6.1	21
6	22	1402	2782	1	347	6.1	22
6	23	1403	2783	1	363	6.1	23
6	24	1404	2784	1	12	6.2	1
6	25	1405	2785	1	28	6.2	2
6	26	1406	2786	1	44	6.2	3
6	27	1407	2787	1	60	6.2	4
6	28	1408	2788	1	76	6.2	5
6	29	1409	2789	1	92	6.2	6
6	30	1410	2790	1	108	6.2	7
6	31	1411	2791	1	124	6.2	8
6	32	1412	2792	1	140	6.2	9
6	33	1413	2793	1	156	6.2	10
6	34	1414	2794	1	172	6.2	11
6	35	1415	2795	1	188	6.2	12
6	36	1416	2796	1	204	6.2	13
6	37	1417	2797	1	220	6.2	14
6	38	1418	2798	1	236	6.2	15
6	39	1419	2799	1	252	6.2	16
6	40	1420	2800	1	268	6.2	17
6	41	1421	2801	1	284	6.2	18
6	42	1422	2802	1	300	6.2	19
6	43	1423	2803	1	316	6.2	20
6	44	1424	2804	1	332	6.2	21
6	45	1425	2805	1	348	6.2	22
6	46	1426	2806	1	364	6.2	23
6	47	1427	2807	2	11	6.1	1
6	48	1428	2808	2	27	6.1	2
6	49	1429	2809	2	43	6.1	3
6	50	1430	2810	2	59	6.1	4
6	51	1431	2811	2	75	6.1	5
6	52	1432	2812	2	91	6.1	6
6	53	1433	2813	2	107	6.1	7
6	54	1434	2814	2	123	6.1	8
6	55	1435	2815	2	139	6.1	9
6	56	1436	2816	2	155	6.1	10
6	57	1437	2817	2	171	6.1	11
6	58	1438	2818	2	187	6.1	12
6	59	1439	2819	2	203	6.1	13
6	60	1440	2820	2	219	6.1	14
6	61	1441	2821	2	235	6.1	15
6	62	1442	2822	2	251	6.1	16
6	63	1443	2823	2	267	6.1	17
6	64	1444	2824	2	283	6.1	18

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	65	1445	2825	2	299	6.1	19
6	66	1446	2826	2	315	6.1	20
6	67	1447	2827	2	331	6.1	21
6	68	1448	2828	2	347	6.1	22
6	69	1449	2829	2	363	6.1	23
6	70	1450	2830	2	12	6.2	1
6	71	1451	2831	2	28	6.2	2
6	72	1452	2832	2	44	6.2	3
6	73	1453	2833	2	60	6.2	4
6	74	1454	2834	2	76	6.2	5
6	75	1455	2835	2	92	6.2	6
6	76	1456	2836	2	108	6.2	7
6	77	1457	2837	2	124	6.2	8
6	78	1458	2838	2	140	6.2	9
6	79	1459	2839	2	156	6.2	10
6	80	1460	2840	2	172	6.2	11
6	81	1461	2841	2	188	6.2	12
6	82	1462	2842	2	204	6.2	13
6	83	1463	2843	2	220	6.2	14
6	84	1464	2844	2	236	6.2	15
6	85	1465	2845	2	252	6.2	16
6	86	1466	2846	2	268	6.2	17
6	87	1467	2847	2	284	6.2	18
6	88	1468	2848	2	300	6.2	19
6	89	1469	2849	2	316	6.2	20
6	90	1470	2850	2	332	6.2	21
6	91	1471	2851	2	348	6.2	22
6	92	1472	2852	2	364	6.2	23
6	93	1473	2853	3	11	6.1	1
6	94	1474	2854	3	27	6.1	2
6	95	1475	2855	3	43	6.1	3
6	96	1476	2856	3	59	6.1	4
6	97	1477	2857	3	75	6.1	5
6	98	1478	2858	3	91	6.1	6
6	99	1479	2859	3	107	6.1	7
6	100	1480	2860	3	123	6.1	8
6	101	1481	2861	3	139	6.1	9
6	102	1482	2862	3	155	6.1	10
6	103	1483	2863	3	171	6.1	11
6	104	1484	2864	3	187	6.1	12
6	105	1485	2865	3	203	6.1	13
6	106	1486	2866	3	219	6.1	14
6	107	1487	2867	3	235	6.1	15
6	108	1488	2868	3	251	6.1	16
6	109	1489	2869	3	267	6.1	17

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	110	1490	2870	3	283	6.1	18
6	111	1491	2871	3	299	6.1	19
6	112	1492	2872	3	315	6.1	20
6	113	1493	2873	3	331	6.1	21
6	114	1494	2874	3	347	6.1	22
6	115	1495	2875	3	363	6.1	23
6	116	1496	2876	3	12	6.2	1
6	117	1497	2877	3	28	6.2	2
6	118	1498	2878	3	44	6.2	3
6	119	1499	2879	3	60	6.2	4
6	120	1500	2880	3	76	6.2	5
6	121	1501	2881	3	92	6.2	6
6	122	1502	2882	3	108	6.2	7
6	123	1503	2883	3	124	6.2	8
6	124	1504	2884	3	140	6.2	9
6	125	1505	2885	3	156	6.2	10
6	126	1506	2886	3	172	6.2	11
6	127	1507	2887	3	188	6.2	12
6	128	1508	2888	3	204	6.2	13
6	129	1509	2889	3	220	6.2	14
6	130	1510	2890	3	236	6.2	15
6	131	1511	2891	3	252	6.2	16
6	132	1512	2892	3	268	6.2	17
6	133	1513	2893	3	284	6.2	18
6	134	1514	2894	3	300	6.2	19
6	135	1515	2895	3	316	6.2	20
6	136	1516	2896	3	332	6.2	21
6	137	1517	2897	3	348	6.2	22
6	138	1518	2898	3	364	6.2	23
6	139	1519	2899	4	11	6.1	1
6	140	1520	2900	4	27	6.1	2
6	141	1521	2901	4	43	6.1	3
6	142	1522	2902	4	59	6.1	4
6	143	1523	2903	4	75	6.1	5
6	144	1524	2904	4	91	6.1	6
6	145	1525	2905	4	107	6.1	7
6	146	1526	2906	4	123	6.1	8
6	147	1527	2907	4	139	6.1	9
6	148	1528	2908	4	155	6.1	10
6	149	1529	2909	4	171	6.1	11
6	150	1530	2910	4	187	6.1	12
6	151	1531	2911	4	203	6.1	13
6	152	1532	2912	4	219	6.1	14
6	153	1533	2913	4	235	6.1	15
6	154	1534	2914	4	251	6.1	16

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	155	1535	2915	4	267	6.1	17
6	156	1536	2916	4	283	6.1	18
6	157	1537	2917	4	299	6.1	19
6	158	1538	2918	4	315	6.1	20
6	159	1539	2919	4	331	6.1	21
6	160	1540	2920	4	347	6.1	22
6	161	1541	2921	4	363	6.1	23
6	162	1542	2922	4	12	6.2	1
6	163	1543	2923	4	28	6.2	2
6	164	1544	2924	4	44	6.2	3
6	165	1545	2925	4	60	6.2	4
6	166	1546	2926	4	76	6.2	5
6	167	1547	2927	4	92	6.2	6
6	168	1548	2928	4	108	6.2	7
6	169	1549	2929	4	124	6.2	8
6	170	1550	2930	4	140	6.2	9
6	171	1551	2931	4	156	6.2	10
6	172	1552	2932	4	172	6.2	11
6	173	1553	2933	4	188	6.2	12
6	174	1554	2934	4	204	6.2	13
6	175	1555	2935	4	220	6.2	14
6	176	1556	2936	4	236	6.2	15
6	177	1557	2937	4	252	6.2	16
6	178	1558	2938	4	268	6.2	17
6	179	1559	2939	4	284	6.2	18
6	180	1560	2940	4	300	6.2	19
6	181	1561	2941	4	316	6.2	20
6	182	1562	2942	4	332	6.2	21
6	183	1563	2943	4	348	6.2	22
6	184	1564	2944	4	364	6.2	23
6	185	1565	2945	5	11	6.1	1
6	186	1566	2946	5	27	6.1	2
6	187	1567	2947	5	43	6.1	3
6	188	1568	2948	5	59	6.1	4
6	189	1569	2949	5	75	6.1	5
6	190	1570	2950	5	91	6.1	6
6	191	1571	2951	5	107	6.1	7
6	192	1572	2952	5	123	6.1	8
6	193	1573	2953	5	139	6.1	9
6	194	1574	2954	5	155	6.1	10
6	195	1575	2955	5	171	6.1	11
6	196	1576	2956	5	187	6.1	12
6	197	1577	2957	5	203	6.1	13
6	198	1578	2958	5	219	6.1	14
6	199	1579	2959	5	235	6.1	15

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	200	1580	2960	5	251	6.1	16
6	201	1581	2961	5	267	6.1	17
6	202	1582	2962	5	283	6.1	18
6	203	1583	2963	5	299	6.1	19
6	204	1584	2964	5	315	6.1	20
6	205	1585	2965	5	331	6.1	21
6	206	1586	2966	5	347	6.1	22
6	207	1587	2967	5	363	6.1	23
6	208	1588	2968	5	12	6.2	1
6	209	1589	2969	5	28	6.2	2
6	210	1590	2970	5	44	6.2	3
6	211	1591	2971	5	60	6.2	4
6	212	1592	2972	5	76	6.2	5
6	213	1593	2973	5	92	6.2	6
6	214	1594	2974	5	108	6.2	7
6	215	1595	2975	5	124	6.2	8
6	216	1596	2976	5	140	6.2	9
6	217	1597	2977	5	156	6.2	10
6	218	1598	2978	5	172	6.2	11
6	219	1599	2979	5	188	6.2	12
6	220	1600	2980	5	204	6.2	13
6	221	1601	2981	5	220	6.2	14
6	222	1602	2982	5	236	6.2	15
6	223	1603	2983	5	252	6.2	16
6	224	1604	2984	5	268	6.2	17
6	225	1605	2985	5	284	6.2	18
6	226	1606	2986	5	300	6.2	19
6	227	1607	2987	5	316	6.2	20
6	228	1608	2988	5	332	6.2	21
6	229	1609	2989	5	348	6.2	22
6	230	1610	2990	5	364	6.2	23
6	231	1611	2991	6	11	6.1	1
6	232	1612	2992	6	27	6.1	2
6	233	1613	2993	6	43	6.1	3
6	234	1614	2994	6	59	6.1	4
6	235	1615	2995	6	75	6.1	5
6	236	1616	2996	6	91	6.1	6
6	237	1617	2997	6	107	6.1	7
6	238	1618	2998	6	123	6.1	8
6	239	1619	2999	6	139	6.1	9
6	240	1620	3000	6	155	6.1	10
6	241	1621	3001	6	171	6.1	11
6	242	1622	3002	6	187	6.1	12
6	243	1623	3003	6	203	6.1	13
6	244	1624	3004	6	219	6.1	14

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	245	1625	3005	6	235	6.1	15
6	246	1626	3006	6	251	6.1	16
6	247	1627	3007	6	267	6.1	17
6	248	1628	3008	6	283	6.1	18
6	249	1629	3009	6	299	6.1	19
6	250	1630	3010	6	315	6.1	20
6	251	1631	3011	6	331	6.1	21
6	252	1632	3012	6	347	6.1	22
6	253	1633	3013	6	363	6.1	23
6	254	1634	3014	6	12	6.2	1
6	255	1635	3015	6	28	6.2	2
6	256	1636	3016	6	44	6.2	3
6	257	1637	3017	6	60	6.2	4
6	258	1638	3018	6	76	6.2	5
6	259	1639	3019	6	92	6.2	6
6	260	1640	3020	6	108	6.2	7
6	261	1641	3021	6	124	6.2	8
6	262	1642	3022	6	140	6.2	9
6	263	1643	3023	6	156	6.2	10
6	264	1644	3024	6	172	6.2	11
6	265	1645	3025	6	188	6.2	12
6	266	1646	3026	6	204	6.2	13
6	267	1647	3027	6	220	6.2	14
6	268	1648	3028	6	236	6.2	15
6	269	1649	3029	6	252	6.2	16
6	270	1650	3030	6	268	6.2	17
6	271	1651	3031	6	284	6.2	18
6	272	1652	3032	6	300	6.2	19
6	273	1653	3033	6	316	6.2	20
6	274	1654	3034	6	332	6.2	21
6	275	1655	3035	6	348	6.2	22
6	276	1656	3036	6	364	6.2	23
6	277	-	3037	7	11	6.1	1
6	278	-	3038	7	27	6.1	2
6	279	-	3039	7	43	6.1	3
6	280	-	3040	7	59	6.1	4
6	281	-	3041	7	75	6.1	5
6	282	-	3042	7	91	6.1	6
6	283	-	3043	7	107	6.1	7
6	284	-	3044	7	123	6.1	8
6	285	-	3045	7	139	6.1	9
6	286	-	3046	7	155	6.1	10
6	287	-	3047	7	171	6.1	11
6	288	-	3048	7	187	6.1	12
6	289	-	3049	7	203	6.1	13

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	290	-	3050	7	219	6.1	14
6	291	-	3051	7	235	6.1	15
6	292	-	3052	7	251	6.1	16
6	293	-	3053	7	267	6.1	17
6	294	-	3054	7	283	6.1	18
6	295	-	3055	7	299	6.1	19
6	296	-	3056	7	315	6.1	20
6	297	-	3057	7	331	6.1	21
6	298	-	3058	7	347	6.1	22
6	299	-	3059	7	363	6.1	23
6	300	-	3060	7	12	6.2	1
6	301	-	3061	7	28	6.2	2
6	302	-	3062	7	44	6.2	3
6	303	-	3063	7	60	6.2	4
6	304	-	3064	7	76	6.2	5
6	305	-	3065	7	92	6.2	6
6	306	-	3066	7	108	6.2	7
6	307	-	3067	7	124	6.2	8
6	308	-	3068	7	140	6.2	9
6	309	-	3069	7	156	6.2	10
6	310	-	3070	7	172	6.2	11
6	311	-	3071	7	188	6.2	12
6	312	-	3072	7	204	6.2	13
6	313	-	3073	7	220	6.2	14
6	314	-	3074	7	236	6.2	15
6	315	-	3075	7	252	6.2	16
6	316	-	3076	7	268	6.2	17
6	317	-	3077	7	284	6.2	18
6	318	-	3078	7	300	6.2	19
6	319	-	3079	7	316	6.2	20
6	320	-	3080	7	332	6.2	21
6	321	-	3081	7	348	6.2	22
6	322	-	3082	7	364	6.2	23
6	323	-	3083	8	11	6.1	1
6	324	-	3084	8	27	6.1	2
6	325	-	3085	8	43	6.1	3
6	326	-	3086	8	59	6.1	4
6	327	-	3087	8	75	6.1	5
6	328	-	3088	8	91	6.1	6
6	329	-	3089	8	107	6.1	7
6	330	-	3090	8	123	6.1	8
6	331	-	3091	8	139	6.1	9
6	332	-	3092	8	155	6.1	10
6	333	-	3093	8	171	6.1	11
6	334	-	3094	8	187	6.1	12

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	335	-	3095	8	203	6.1	13
6	336	-	3096	8	219	6.1	14
6	337	-	3097	8	235	6.1	15
6	338	-	3098	8	251	6.1	16
6	339	-	3099	8	267	6.1	17
6	340	-	3100	8	283	6.1	18
6	341	-	3101	8	299	6.1	19
6	342	-	3102	8	315	6.1	20
6	343	-	3103	8	331	6.1	21
6	344	-	3104	8	347	6.1	22
6	345	-	3105	8	363	6.1	23
6	346	-	3106	8	12	6.2	1
6	347	-	3107	8	28	6.2	2
6	348	-	3108	8	44	6.2	3
6	349	-	3109	8	60	6.2	4
6	350	-	3110	8	76	6.2	5
6	351	-	3111	8	92	6.2	6
6	352	-	3112	8	108	6.2	7
6	353	-	3113	8	124	6.2	8
6	354	-	3114	8	140	6.2	9
6	355	-	3115	8	156	6.2	10
6	356	-	3116	8	172	6.2	11
6	357	-	3117	8	188	6.2	12
6	358	-	3118	8	204	6.2	13
6	359	-	3119	8	220	6.2	14
6	360	-	3120	8	236	6.2	15
6	361	-	3121	8	252	6.2	16
6	362	-	3122	8	268	6.2	17
6	363	-	3123	8	284	6.2	18
6	364	-	3124	8	300	6.2	19
6	365	-	3125	8	316	6.2	20
6	366	-	3126	8	332	6.2	21
6	367	-	3127	8	348	6.2	22
6	368	-	3128	8	364	6.2	23
6	369	-	3129	9	11	6.1	1
6	370	-	3130	9	27	6.1	2
6	371	-	3131	9	43	6.1	3
6	372	-	3132	9	59	6.1	4
6	373	-	3133	9	75	6.1	5
6	374	-	3134	9	91	6.1	6
6	375	-	3135	9	107	6.1	7
6	376	-	3136	9	123	6.1	8
6	377	-	3137	9	139	6.1	9
6	378	-	3138	9	155	6.1	10
6	379	-	3139	9	171	6.1	11
6	380	-	3140	9	187	6.1	12
6	381	-	3141	9	203	6.1	13
6	382	-	3142	9	219	6.1	14
6	383	-	3143	9	235	6.1	15
6	384	-	3144	9	251	6.1	16
6	385	-	3145	9	267	6.1	17
6	386	-	3146	9	283	6.1	18
6	387	-	3147	9	299	6.1	19
6	388	-	3148	9	315	6.1	20
6	389	-	3149	9	331	6.1	21
6	390	-	3150	9	347	6.1	22
6	391	-	3151	9	363	6.1	23
6	392	-	3152	9	12	6.2	1
6	393	-	3153	9	28	6.2	2
6	394	-	3154	9	44	6.2	3
6	395	-	3155	9	60	6.2	4
6	396	-	3156	9	76	6.2	5
6	397	-	3157	9	92	6.2	6
6	398	-	3158	9	108	6.2	7
6	399	-	3159	9	124	6.2	8
6	400	-	3160	9	140	6.2	9
6	401	-	3161	9	156	6.2	10
6	402	-	3162	9	172	6.2	11
6	403	-	3163	9	188	6.2	12
6	404	-	3164	9	204	6.2	13
6	405	-	3165	9	220	6.2	14
6	406	-	3166	9	236	6.2	15
6	407	-	3167	9	252	6.2	16
6	408	-	3168	9	268	6.2	17
6	409	-	3169	9	284	6.2	18
6	410	-	3170	9	300	6.2	19
6	411	-	3171	9	316	6.2	20
6	412	-	3172	9	332	6.2	21
6	413	-	3173	9	348	6.2	22
6	414	-	3174	9	364	6.2	23
6	415	-	3175	10	11	6.1	1
6	416	-	3176	10	27	6.1	2
6	417	-	3177	10	43	6.1	3
6	418	-	3178	10	59	6.1	4
6	419	-	3179	10	75	6.1	5
6	420	-	3180	10	91	6.1	6
6	421	-	3181	10	107	6.1	7
6	422	-	3182	10	123	6.1	8
6	423	-	3183	10	139	6.1	9
6	424	-	3184	10	155	6.1	10

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	425	-	3185	10	171	6.1	11
6	426	-	3186	10	187	6.1	12
6	427	-	3187	10	203	6.1	13
6	428	-	3188	10	219	6.1	14
6	429	-	3189	10	235	6.1	15
6	430	-	3190	10	251	6.1	16
6	431	-	3191	10	267	6.1	17
6	432	-	3192	10	283	6.1	18
6	433	-	3193	10	299	6.1	19
6	434	-	3194	10	315	6.1	20
6	435	-	3195	10	331	6.1	21
6	436	-	3196	10	347	6.1	22
6	437	-	3197	10	363	6.1	23
6	438	-	3198	10	12	6.2	1
6	439	-	3199	10	28	6.2	2
6	440	-	3200	10	44	6.2	3
6	441	-	3201	10	60	6.2	4
6	442	-	3202	10	76	6.2	5
6	443	-	3203	10	92	6.2	6
6	444	-	3204	10	108	6.2	7
6	445	-	3205	10	124	6.2	8
6	446	-	3206	10	140	6.2	9
6	447	-	3207	10	156	6.2	10
6	448	-	3208	10	172	6.2	11
6	449	-	3209	10	188	6.2	12
6	450	-	3210	10	204	6.2	13
6	451	-	3211	10	220	6.2	14
6	452	-	3212	10	236	6.2	15
6	453	-	3213	10	252	6.2	16
6	454	-	3214	10	268	6.2	17
6	455	-	3215	10	284	6.2	18
6	456	-	3216	10	300	6.2	19
6	457	-	3217	10	316	6.2	20
6	458	-	3218	10	332	6.2	21
6	459	-	3219	10	348	6.2	22
6	460	-	3220	10	364	6.2	23
6	461	-	3221	11	11	6.1	1
6	462	-	3222	11	27	6.1	2
6	463	-	3223	11	43	6.1	3
6	464	-	3224	11	59	6.1	4
6	465	-	3225	11	75	6.1	5
6	466	-	3226	11	91	6.1	6
6	467	-	3227	11	107	6.1	7
6	468	-	3228	11	123	6.1	8
6	469	-	3229	11	139	6.1	9
6	470	-	3230	11	155	6.1	10
6	471	-	3231	11	171	6.1	11
6	472	-	3232	11	187	6.1	12
6	473	-	3233	11	203	6.1	13
6	474	-	3234	11	219	6.1	14
6	475	-	3235	11	235	6.1	15
6	476	-	3236	11	251	6.1	16
6	477	-	3237	11	267	6.1	17
6	478	-	3238	11	283	6.1	18
6	479	-	3239	11	299	6.1	19
6	480	-	3240	11	315	6.1	20
6	481	-	3241	11	331	6.1	21
6	482	-	3242	11	347	6.1	22
6	483	-	3243	11	363	6.1	23
6	484	-	3244	11	12	6.2	1
6	485	-	3245	11	28	6.2	2
6	486	-	3246	11	44	6.2	3
6	487	-	3247	11	60	6.2	4
6	488	-	3248	11	76	6.2	5
6	489	-	3249	11	92	6.2	6
6	490	-	3250	11	108	6.2	7
6	491	-	3251	11	124	6.2	8
6	492	-	3252	11	140	6.2	9
6	493	-	3253	11	156	6.2	10
6	494	-	3254	11	172	6.2	11
6	495	-	3255	11	188	6.2	12
6	496	-	3256	11	204	6.2	13
6	497	-	3257	11	220	6.2	14
6	498	-	3258	11	236	6.2	15
6	499	-	3259	11	252	6.2	16
6	500	-	3260	11	268	6.2	17
6	501	-	3261	11	284	6.2	18
6	502	-	3262	11	300	6.2	19
6	503	-	3263	11	316	6.2	20
6	504	-	3264	11	332	6.2	21
6	505	-	3265	11	348	6.2	22
6	506	-	3266	11	364	6.2	23
6	507	-	3267	12	11	6.1	1
6	508	-	3268	12	27	6.1	2
6	509	-	3269	12	43	6.1	3
6	510	-	3270	12	59	6.1	4
6	511	-	3271	12	75	6.1	5
6	512	-	3272	12	91	6.1	6
6	513	-	3273	12	107	6.1	7
6	514	-	3274	12	123	6.1	8

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
6	515	-	3275	12	139	6.1	9
6	516	-	3276	12	155	6.1	10
6	517	-	3277	12	171	6.1	11
6	518	-	3278	12	187	6.1	12
6	519	-	3279	12	203	6.1	13
6	520	-	3280	12	219	6.1	14
6	521	-	3281	12	235	6.1	15
6	522	-	3282	12	251	6.1	16
6	523	-	3283	12	267	6.1	17
6	524	-	3284	12	283	6.1	18
6	525	-	3285	12	299	6.1	19
6	526	-	3286	12	315	6.1	20
6	527	-	3287	12	331	6.1	21
6	528	-	3288	12	347	6.1	22
6	529	-	3289	12	363	6.1	23
6	530	-	3290	12	12	6.2	1
6	531	-	3291	12	28	6.2	2
6	532	-	3292	12	44	6.2	3
6	533	-	3293	12	60	6.2	4
6	534	-	3294	12	76	6.2	5
6	535	-	3295	12	92	6.2	6
6	536	-	3296	12	108	6.2	7
6	537	-	3297	12	124	6.2	8
6	538	-	3298	12	140	6.2	9
6	539	-	3299	12	156	6.2	10
6	540	-	3300	12	172	6.2	11
6	541	-	3301	12	188	6.2	12
6	542	-	3302	12	204	6.2	13
6	543	-	3303	12	220	6.2	14
6	544	-	3304	12	236	6.2	15
6	545	-	3305	12	252	6.2	16
6	546	-	3306	12	268	6.2	17
6	547	-	3307	12	284	6.2	18
6	548	-	3308	12	300	6.2	19
6	549	-	3309	12	316	6.2	20
6	550	-	3310	12	332	6.2	21
6	551	-	3311	12	348	6.2	22
6	552	-	3312	12	364	6.2	23
7	1	1657	3313	1	13	7.1	1
7	2	1658	3314	1	29	7.1	2
7	3	1659	3315	1	45	7.1	3
7	4	1660	3316	1	61	7.1	4
7	5	1661	3317	1	77	7.1	5
7	6	1662	3318	1	93	7.1	6
7	7	1663	3319	1	109	7.1	7

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	8	1664	3320	1	125	7.1	8
7	9	1665	3321	1	141	7.1	9
7	10	1666	3322	1	157	7.1	10
7	11	1667	3323	1	173	7.1	11
7	12	1668	3324	1	189	7.1	12
7	13	1669	3325	1	205	7.1	13
7	14	1670	3326	1	221	7.1	14
7	15	1671	3327	1	237	7.1	15
7	16	1672	3328	1	253	7.1	16
7	17	1673	3329	1	269	7.1	17
7	18	1674	3330	1	285	7.1	18
7	19	1675	3331	1	301	7.1	19
7	20	1676	3332	1	317	7.1	20
7	21	1677	3333	1	333	7.1	21
7	22	1678	3334	1	349	7.1	22
7	23	1679	3335	1	365	7.1	23
7	24	1680	3336	1	14	7.2	1
7	25	1681	3337	1	30	7.2	2
7	26	1682	3338	1	46	7.2	3
7	27	1683	3339	1	62	7.2	4
7	28	1684	3340	1	78	7.2	5
7	29	1685	3341	1	94	7.2	6
7	30	1686	3342	1	110	7.2	7
7	31	1687	3343	1	126	7.2	8
7	32	1688	3344	1	142	7.2	9
7	33	1689	3345	1	158	7.2	10
7	34	1690	3346	1	174	7.2	11
7	35	1691	3347	1	190	7.2	12
7	36	1692	3348	1	206	7.2	13
7	37	1693	3349	1	222	7.2	14
7	38	1694	3350	1	238	7.2	15
7	39	1695	3351	1	254	7.2	16
7	40	1696	3352	1	270	7.2	17
7	41	1697	3353	1	286	7.2	18
7	42	1698	3354	1	302	7.2	19
7	43	1699	3355	1	318	7.2	20
7	44	1700	3356	1	334	7.2	21
7	45	1701	3357	1	350	7.2	22
7	46	1702	3358	1	366	7.2	23
7	47	1703	3359	2	13	7.1	1
7	48	1704	3360	2	29	7.1	2
7	49	1705	3361	2	45	7.1	3
7	50	1706	3362	2	61	7.1	4
7	51	1707	3363	2	77	7.1	5
7	52	1708	3364	2	93	7.1	6

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	53	1709	3365	2	109	7.1	7
7	54	1710	3366	2	125	7.1	8
7	55	1711	3367	2	141	7.1	9
7	56	1712	3368	2	157	7.1	10
7	57	1713	3369	2	173	7.1	11
7	58	1714	3370	2	189	7.1	12
7	59	1715	3371	2	205	7.1	13
7	60	1716	3372	2	221	7.1	14
7	61	1717	3373	2	237	7.1	15
7	62	1718	3374	2	253	7.1	16
7	63	1719	3375	2	269	7.1	17
7	64	1720	3376	2	285	7.1	18
7	65	1721	3377	2	301	7.1	19
7	66	1722	3378	2	317	7.1	20
7	67	1723	3379	2	333	7.1	21
7	68	1724	3380	2	349	7.1	22
7	69	1725	3381	2	365	7.1	23
7	70	1726	3382	2	14	7.2	1
7	71	1727	3383	2	30	7.2	2
7	72	1728	3384	2	46	7.2	3
7	73	1729	3385	2	62	7.2	4
7	74	1730	3386	2	78	7.2	5
7	75	1731	3387	2	94	7.2	6
7	76	1732	3388	2	110	7.2	7
7	77	1733	3389	2	126	7.2	8
7	78	1734	3390	2	142	7.2	9
7	79	1735	3391	2	158	7.2	10
7	80	1736	3392	2	174	7.2	11
7	81	1737	3393	2	190	7.2	12
7	82	1738	3394	2	206	7.2	13
7	83	1739	3395	2	222	7.2	14
7	84	1740	3396	2	238	7.2	15
7	85	1741	3397	2	254	7.2	16
7	86	1742	3398	2	270	7.2	17
7	87	1743	3399	2	286	7.2	18
7	88	1744	3400	2	302	7.2	19
7	89	1745	3401	2	318	7.2	20
7	90	1746	3402	2	334	7.2	21
7	91	1747	3403	2	350	7.2	22
7	92	1748	3404	2	366	7.2	23
7	93	1749	3405	3	13	7.1	1
7	94	1750	3406	3	29	7.1	2
7	95	1751	3407	3	45	7.1	3
7	96	1752	3408	3	61	7.1	4
7	97	1753	3409	3	77	7.1	5

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	98	1754	3410	3	93	7.1	6
7	99	1755	3411	3	109	7.1	7
7	100	1756	3412	3	125	7.1	8
7	101	1757	3413	3	141	7.1	9
7	102	1758	3414	3	157	7.1	10
7	103	1759	3415	3	173	7.1	11
7	104	1760	3416	3	189	7.1	12
7	105	1761	3417	3	205	7.1	13
7	106	1762	3418	3	221	7.1	14
7	107	1763	3419	3	237	7.1	15
7	108	1764	3420	3	253	7.1	16
7	109	1765	3421	3	269	7.1	17
7	110	1766	3422	3	285	7.1	18
7	111	1767	3423	3	301	7.1	19
7	112	1768	3424	3	317	7.1	20
7	113	1769	3425	3	333	7.1	21
7	114	1770	3426	3	349	7.1	22
7	115	1771	3427	3	365	7.1	23
7	116	1772	3428	3	14	7.2	1
7	117	1773	3429	3	30	7.2	2
7	118	1774	3430	3	46	7.2	3
7	119	1775	3431	3	62	7.2	4
7	120	1776	3432	3	78	7.2	5
7	121	1777	3433	3	94	7.2	6
7	122	1778	3434	3	110	7.2	7
7	123	1779	3435	3	126	7.2	8
7	124	1780	3436	3	142	7.2	9
7	125	1781	3437	3	158	7.2	10
7	126	1782	3438	3	174	7.2	11
7	127	1783	3439	3	190	7.2	12
7	128	1784	3440	3	206	7.2	13
7	129	1785	3441	3	222	7.2	14
7	130	1786	3442	3	238	7.2	15
7	131	1787	3443	3	254	7.2	16
7	132	1788	3444	3	270	7.2	17
7	133	1789	3445	3	286	7.2	18
7	134	1790	3446	3	302	7.2	19
7	135	1791	3447	3	318	7.2	20
7	136	1792	3448	3	334	7.2	21
7	137	1793	3449	3	350	7.2	22
7	138	1794	3450	3	366	7.2	23
7	139	1795	3451	4	13	7.1	1
7	140	1796	3452	4	29	7.1	2
7	141	1797	3453	4	45	7.1	3
7	142	1798	3454	4	61	7.1	4

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	143	1799	3455	4	77	7.1	5
7	144	1800	3456	4	93	7.1	6
7	145	1801	3457	4	109	7.1	7
7	146	1802	3458	4	125	7.1	8
7	147	1803	3459	4	141	7.1	9
7	148	1804	3460	4	157	7.1	10
7	149	1805	3461	4	173	7.1	11
7	150	1806	3462	4	189	7.1	12
7	151	1807	3463	4	205	7.1	13
7	152	1808	3464	4	221	7.1	14
7	153	1809	3465	4	237	7.1	15
7	154	1810	3466	4	253	7.1	16
7	155	1811	3467	4	269	7.1	17
7	156	1812	3468	4	285	7.1	18
7	157	1813	3469	4	301	7.1	19
7	158	1814	3470	4	317	7.1	20
7	159	1815	3471	4	333	7.1	21
7	160	1816	3472	4	349	7.1	22
7	161	1817	3473	4	365	7.1	23
7	162	1818	3474	4	14	7.2	1
7	163	1819	3475	4	30	7.2	2
7	164	1820	3476	4	46	7.2	3
7	165	1821	3477	4	62	7.2	4
7	166	1822	3478	4	78	7.2	5
7	167	1823	3479	4	94	7.2	6
7	168	1824	3480	4	110	7.2	7
7	169	1825	3481	4	126	7.2	8
7	170	1826	3482	4	142	7.2	9
7	171	1827	3483	4	158	7.2	10
7	172	1828	3484	4	174	7.2	11
7	173	1829	3485	4	190	7.2	12
7	174	1830	3486	4	206	7.2	13
7	175	1831	3487	4	222	7.2	14
7	176	1832	3488	4	238	7.2	15
7	177	1833	3489	4	254	7.2	16
7	178	1834	3490	4	270	7.2	17
7	179	1835	3491	4	286	7.2	18
7	180	1836	3492	4	302	7.2	19
7	181	1837	3493	4	318	7.2	20
7	182	1838	3494	4	334	7.2	21
7	183	1839	3495	4	350	7.2	22
7	184	1840	3496	4	366	7.2	23
7	185	1841	3497	5	13	7.1	1
7	186	1842	3498	5	29	7.1	2
7	187	1843	3499	5	45	7.1	3
7	188	1844	3500	5	61	7.1	4
7	189	1845	3501	5	77	7.1	5
7	190	1846	3502	5	93	7.1	6
7	191	1847	3503	5	109	7.1	7
7	192	1848	3504	5	125	7.1	8
7	193	1849	3505	5	141	7.1	9
7	194	1850	3506	5	157	7.1	10
7	195	1851	3507	5	173	7.1	11
7	196	1852	3508	5	189	7.1	12
7	197	1853	3509	5	205	7.1	13
7	198	1854	3510	5	221	7.1	14
7	199	1855	3511	5	237	7.1	15
7	200	1856	3512	5	253	7.1	16
7	201	1857	3513	5	269	7.1	17
7	202	1858	3514	5	285	7.1	18
7	203	1859	3515	5	301	7.1	19
7	204	1860	3516	5	317	7.1	20
7	205	1861	3517	5	333	7.1	21
7	206	1862	3518	5	349	7.1	22
7	207	1863	3519	5	365	7.1	23
7	208	1864	3520	5	14	7.2	1
7	209	1865	3521	5	30	7.2	2
7	210	1866	3522	5	46	7.2	3
7	211	1867	3523	5	62	7.2	4
7	212	1868	3524	5	78	7.2	5
7	213	1869	3525	5	94	7.2	6
7	214	1870	3526	5	110	7.2	7
7	215	1871	3527	5	126	7.2	8
7	216	1872	3528	5	142	7.2	9
7	217	1873	3529	5	158	7.2	10
7	218	1874	3530	5	174	7.2	11
7	219	1875	3531	5	190	7.2	12
7	220	1876	3532	5	206	7.2	13
7	221	1877	3533	5	222	7.2	14
7	222	1878	3534	5	238	7.2	15
7	223	1879	3535	5	254	7.2	16
7	224	1880	3536	5	270	7.2	17
7	225	1881	3537	5	286	7.2	18
7	226	1882	3538	5	302	7.2	19
7	227	1883	3539	5	318	7.2	20
7	228	1884	3540	5	334	7.2	21
7	229	1885	3541	5	350	7.2	22
7	230	1886	3542	5	366	7.2	23
7	231	1887	3543	6	13	7.1	1
7	232	1888	3544	6	29	7.1	2

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	233	1889	3545	6	45	7.1	3
7	234	1890	3546	6	61	7.1	4
7	235	1891	3547	6	77	7.1	5
7	236	1892	3548	6	93	7.1	6
7	237	1893	3549	6	109	7.1	7
7	238	1894	3550	6	125	7.1	8
7	239	1895	3551	6	141	7.1	9
7	240	1896	3552	6	157	7.1	10
7	241	1897	3553	6	173	7.1	11
7	242	1898	3554	6	189	7.1	12
7	243	1899	3555	6	205	7.1	13
7	244	1900	3556	6	221	7.1	14
7	245	1901	3557	6	237	7.1	15
7	246	1902	3558	6	253	7.1	16
7	247	1903	3559	6	269	7.1	17
7	248	1904	3560	6	285	7.1	18
7	249	1905	3561	6	301	7.1	19
7	250	1906	3562	6	317	7.1	20
7	251	1907	3563	6	333	7.1	21
7	252	1908	3564	6	349	7.1	22
7	253	1909	3565	6	365	7.1	23
7	254	1910	3566	6	14	7.2	1
7	255	1911	3567	6	30	7.2	2
7	256	1912	3568	6	46	7.2	3
7	257	1913	3569	6	62	7.2	4
7	258	1914	3570	6	78	7.2	5
7	259	1915	3571	6	94	7.2	6
7	260	1916	3572	6	110	7.2	7
7	261	1917	3573	6	126	7.2	8
7	262	1918	3574	6	142	7.2	9
7	263	1919	3575	6	158	7.2	10
7	264	1920	3576	6	174	7.2	11
7	265	1921	3577	6	190	7.2	12
7	266	1922	3578	6	206	7.2	13
7	267	1923	3579	6	222	7.2	14
7	268	1924	3580	6	238	7.2	15
7	269	1925	3581	6	254	7.2	16
7	270	1926	3582	6	270	7.2	17
7	271	1927	3583	6	286	7.2	18
7	272	1928	3584	6	302	7.2	19
7	273	1929	3585	6	318	7.2	20
7	274	1930	3586	6	334	7.2	21
7	275	1931	3587	6	350	7.2	22
7	276	1932	3588	6	366	7.2	23

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	277	-	3589	7	13	7.1	1
7	278	-	3590	7	29	7.1	2
7	279	-	3591	7	45	7.1	3
7	280	-	3592	7	61	7.1	4
7	281	-	3593	7	77	7.1	5
7	282	-	3594	7	93	7.1	6
7	283	-	3595	7	109	7.1	7
7	284	-	3596	7	125	7.1	8
7	285	-	3597	7	141	7.1	9
7	286	-	3598	7	157	7.1	10
7	287	-	3599	7	173	7.1	11
7	288	-	3600	7	189	7.1	12
7	289	-	3601	7	205	7.1	13
7	290	-	3602	7	221	7.1	14
7	291	-	3603	7	237	7.1	15
7	292	-	3604	7	253	7.1	16
7	293	-	3605	7	269	7.1	17
7	294	-	3606	7	285	7.1	18
7	295	-	3607	7	301	7.1	19
7	296	-	3608	7	317	7.1	20
7	297	-	3609	7	333	7.1	21
7	298	-	3610	7	349	7.1	22
7	299	-	3611	7	365	7.1	23
7	300	-	3612	7	14	7.2	1
7	301	-	3613	7	30	7.2	2
7	302	-	3614	7	46	7.2	3
7	303	-	3615	7	62	7.2	4
7	304	-	3616	7	78	7.2	5
7	305	-	3617	7	94	7.2	6
7	306	-	3618	7	110	7.2	7
7	307	-	3619	7	126	7.2	8
7	308	-	3620	7	142	7.2	9
7	309	-	3621	7	158	7.2	10
7	310	-	3622	7	174	7.2	11
7	311	-	3623	7	190	7.2	12
7	312	-	3624	7	206	7.2	13
7	313	-	3625	7	222	7.2	14
7	314	-	3626	7	238	7.2	15
7	315	-	3627	7	254	7.2	16
7	316	-	3628	7	270	7.2	17
7	317	-	3629	7	286	7.2	18
7	318	-	3630	7	302	7.2	19
7	319	-	3631	7	318	7.2	20
7	320	-	3632	7	334	7.2	21

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	321	-	3633	7	350	7.2	22
7	322	-	3634	7	366	7.2	23
7	323	-	3635	8	13	7.1	1
7	324	-	3636	8	29	7.1	2
7	325	-	3637	8	45	7.1	3
7	326	-	3638	8	61	7.1	4
7	327	-	3639	8	77	7.1	5
7	328	-	3640	8	93	7.1	6
7	329	-	3641	8	109	7.1	7
7	330	-	3642	8	125	7.1	8
7	331	-	3643	8	141	7.1	9
7	332	-	3644	8	157	7.1	10
7	333	-	3645	8	173	7.1	11
7	334	-	3646	8	189	7.1	12
7	335	-	3647	8	205	7.1	13
7	336	-	3648	8	221	7.1	14
7	337	-	3649	8	237	7.1	15
7	338	-	3650	8	253	7.1	16
7	339	-	3651	8	269	7.1	17
7	340	-	3652	8	285	7.1	18
7	341	-	3653	8	301	7.1	19
7	342	-	3654	8	317	7.1	20
7	343	-	3655	8	333	7.1	21
7	344	-	3656	8	349	7.1	22
7	345	-	3657	8	365	7.1	23
7	346	-	3658	8	14	7.2	1
7	347	-	3659	8	30	7.2	2
7	348	-	3660	8	46	7.2	3
7	349	-	3661	8	62	7.2	4
7	350	-	3662	8	78	7.2	5
7	351	-	3663	8	94	7.2	6
7	352	-	3664	8	110	7.2	7
7	353	-	3665	8	126	7.2	8
7	354	-	3666	8	142	7.2	9
7	355	-	3667	8	158	7.2	10
7	356	-	3668	8	174	7.2	11
7	357	-	3669	8	190	7.2	12
7	358	-	3670	8	206	7.2	13
7	359	-	3671	8	222	7.2	14
7	360	-	3672	8	238	7.2	15
7	361	-	3673	8	254	7.2	16
7	362	-	3674	8	270	7.2	17
7	363	-	3675	8	286	7.2	18
7	364	-	3676	8	302	7.2	19
7	365	-	3677	8	318	7.2	20
7	366	-	3678	8	334	7.2	21
7	367	-	3679	8	350	7.2	22
7	368	-	3680	8	366	7.2	23
7	369	-	3681	9	13	7.1	1
7	370	-	3682	9	29	7.1	2
7	371	-	3683	9	45	7.1	3
7	372	-	3684	9	61	7.1	4
7	373	-	3685	9	77	7.1	5
7	374	-	3686	9	93	7.1	6
7	375	-	3687	9	109	7.1	7
7	376	-	3688	9	125	7.1	8
7	377	-	3689	9	141	7.1	9
7	378	-	3690	9	157	7.1	10
7	379	-	3691	9	173	7.1	11
7	380	-	3692	9	189	7.1	12
7	381	-	3693	9	205	7.1	13
7	382	-	3694	9	221	7.1	14
7	383	-	3695	9	237	7.1	15
7	384	-	3696	9	253	7.1	16
7	385	-	3697	9	269	7.1	17
7	386	-	3698	9	285	7.1	18
7	387	-	3699	9	301	7.1	19
7	388	-	3700	9	317	7.1	20
7	389	-	3701	9	333	7.1	21
7	390	-	3702	9	349	7.1	22
7	391	-	3703	9	365	7.1	23
7	392	-	3704	9	14	7.2	1
7	393	-	3705	9	30	7.2	2
7	394	-	3706	9	46	7.2	3
7	395	-	3707	9	62	7.2	4
7	396	-	3708	9	78	7.2	5
7	397	-	3709	9	94	7.2	6
7	398	-	3710	9	110	7.2	7
7	399	-	3711	9	126	7.2	8
7	400	-	3712	9	142	7.2	9
7	401	-	3713	9	158	7.2	10
7	402	-	3714	9	174	7.2	11
7	403	-	3715	9	190	7.2	12
7	404	-	3716	9	206	7.2	13
7	405	-	3717	9	222	7.2	14
7	406	-	3718	9	238	7.2	15
7	407	-	3719	9	254	7.2	16
7	408	-	3720	9	270	7.2	17

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	409	-	3721	9	286	7.2	18
7	410	-	3722	9	302	7.2	19
7	411	-	3723	9	318	7.2	20
7	412	-	3724	9	334	7.2	21
7	413	-	3725	9	350	7.2	22
7	414	-	3726	9	366	7.2	23
7	415	-	3727	10	13	7.1	1
7	416	-	3728	10	29	7.1	2
7	417	-	3729	10	45	7.1	3
7	418	-	3730	10	61	7.1	4
7	419	-	3731	10	77	7.1	5
7	420	-	3732	10	93	7.1	6
7	421	-	3733	10	109	7.1	7
7	422	-	3734	10	125	7.1	8
7	423	-	3735	10	141	7.1	9
7	424	-	3736	10	157	7.1	10
7	425	-	3737	10	173	7.1	11
7	426	-	3738	10	189	7.1	12
7	427	-	3739	10	205	7.1	13
7	428	-	3740	10	221	7.1	14
7	429	-	3741	10	237	7.1	15
7	430	-	3742	10	253	7.1	16
7	431	-	3743	10	269	7.1	17
7	432	-	3744	10	285	7.1	18
7	433	-	3745	10	301	7.1	19
7	434	-	3746	10	317	7.1	20
7	435	-	3747	10	333	7.1	21
7	436	-	3748	10	349	7.1	22
7	437	-	3749	10	365	7.1	23
7	438	-	3750	10	14	7.2	1
7	439	-	3751	10	30	7.2	2
7	440	-	3752	10	46	7.2	3
7	441	-	3753	10	62	7.2	4
7	442	-	3754	10	78	7.2	5
7	443	-	3755	10	94	7.2	6
7	444	-	3756	10	110	7.2	7
7	445	-	3757	10	126	7.2	8
7	446	-	3758	10	142	7.2	9
7	447	-	3759	10	158	7.2	10
7	448	-	3760	10	174	7.2	11
7	449	-	3761	10	190	7.2	12
7	450	-	3762	10	206	7.2	13
7	451	-	3763	10	222	7.2	14
7	452	-	3764	10	238	7.2	15
7	453	-	3765	10	254	7.2	16

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	454	-	3766	10	270	7.2	17
7	455	-	3767	10	286	7.2	18
7	456	-	3768	10	302	7.2	19
7	457	-	3769	10	318	7.2	20
7	458	-	3770	10	334	7.2	21
7	459	-	3771	10	350	7.2	22
7	460	-	3772	10	366	7.2	23
7	461	-	3773	11	13	7.1	1
7	462	-	3774	11	29	7.1	2
7	463	-	3775	11	45	7.1	3
7	464	-	3776	11	61	7.1	4
7	465	-	3777	11	77	7.1	5
7	466	-	3778	11	93	7.1	6
7	467	-	3779	11	109	7.1	7
7	468	-	3780	11	125	7.1	8
7	469	-	3781	11	141	7.1	9
7	470	-	3782	11	157	7.1	10
7	471	-	3783	11	173	7.1	11
7	472	-	3784	11	189	7.1	12
7	473	-	3785	11	205	7.1	13
7	474	-	3786	11	221	7.1	14
7	475	-	3787	11	237	7.1	15
7	476	-	3788	11	253	7.1	16
7	477	-	3789	11	269	7.1	17
7	478	-	3790	11	285	7.1	18
7	479	-	3791	11	301	7.1	19
7	480	-	3792	11	317	7.1	20
7	481	-	3793	11	333	7.1	21
7	482	-	3794	11	349	7.1	22
7	483	-	3795	11	365	7.1	23
7	484	-	3796	11	14	7.2	1
7	485	-	3797	11	30	7.2	2
7	486	-	3798	11	46	7.2	3
7	487	-	3799	11	62	7.2	4
7	488	-	3800	11	78	7.2	5
7	489	-	3801	11	94	7.2	6
7	490	-	3802	11	110	7.2	7
7	491	-	3803	11	126	7.2	8
7	492	-	3804	11	142	7.2	9
7	493	-	3805	11	158	7.2	10
7	494	-	3806	11	174	7.2	11
7	495	-	3807	11	190	7.2	12
7	496	-	3808	11	206	7.2	13
7	497	-	3809	11	222	7.2	14
7	498	-	3810	11	238	7.2	15

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
7	499	-	3811	11	254	7.2	16
7	500	-	3812	11	270	7.2	17
7	501	-	3813	11	286	7.2	18
7	502	-	3814	11	302	7.2	19
7	503	-	3815	11	318	7.2	20
7	504	-	3816	11	334	7.2	21
7	505	-	3817	11	350	7.2	22
7	506	-	3818	11	366	7.2	23
7	507	-	3819	12	13	7.1	1
7	508	-	3820	12	29	7.1	2
7	509	-	3821	12	45	7.1	3
7	510	-	3822	12	61	7.1	4
7	511	-	3823	12	77	7.1	5
7	512	-	3824	12	93	7.1	6
7	513	-	3825	12	109	7.1	7
7	514	-	3826	12	125	7.1	8
7	515	-	3827	12	141	7.1	9
7	516	-	3828	12	157	7.1	10
7	517	-	3829	12	173	7.1	11
7	518	-	3830	12	189	7.1	12
7	519	-	3831	12	205	7.1	13
7	520	-	3832	12	221	7.1	14
7	521	-	3833	12	237	7.1	15
7	522	-	3834	12	253	7.1	16
7	523	-	3835	12	269	7.1	17
7	524	-	3836	12	285	7.1	18
7	525	-	3837	12	301	7.1	19
7	526	-	3838	12	317	7.1	20
7	527	-	3839	12	333	7.1	21
7	528	-	3840	12	349	7.1	22
7	529	-	3841	12	365	7.1	23
7	530	-	3842	12	14	7.2	1
7	531	-	3843	12	30	7.2	2
7	532	-	3844	12	46	7.2	3
7	533	-	3845	12	62	7.2	4
7	534	-	3846	12	78	7.2	5
7	535	-	3847	12	94	7.2	6
7	536	-	3848	12	110	7.2	7
7	537	-	3849	12	126	7.2	8
7	538	-	3850	12	142	7.2	9
7	539	-	3851	12	158	7.2	10
7	540	-	3852	12	174	7.2	11
7	541	-	3853	12	190	7.2	12
7	542	-	3854	12	206	7.2	13
7	543	-	3855	12	222	7.2	14
7	544	-	3856	12	238	7.2	15
7	545	-	3857	12	254	7.2	16
7	546	-	3858	12	270	7.2	17
7	547	-	3859	12	286	7.2	18
7	548	-	3860	12	302	7.2	19
7	549	-	3861	12	318	7.2	20
7	550	-	3862	12	334	7.2	21
7	551	-	3863	12	350	7.2	22
7	552	-	3864	12	366	7.2	23
8	1	1933	3865	1	15	8.1	1
8	2	1934	3866	1	31	8.1	2
8	3	1935	3867	1	47	8.1	3
8	4	1936	3868	1	63	8.1	4
8	5	1937	3869	1	79	8.1	5
8	6	1938	3870	1	95	8.1	6
8	7	1939	3871	1	111	8.1	7
8	8	1940	3872	1	127	8.1	8
8	9	1941	3873	1	143	8.1	9
8	10	1942	3874	1	159	8.1	10
8	11	1943	3875	1	175	8.1	11
8	12	1944	3876	1	191	8.1	12
8	13	1945	3877	1	207	8.1	13
8	14	1946	3878	1	223	8.1	14
8	15	1947	3879	1	239	8.1	15
8	16	1948	3880	1	255	8.1	16
8	17	1949	3881	1	271	8.1	17
8	18	1950	3882	1	287	8.1	18
8	19	1951	3883	1	303	8.1	19
8	20	1952	3884	1	319	8.1	20
8	21	1953	3885	1	335	8.1	21
8	22	1954	3886	1	351	8.1	22
8	23	1955	3887	1	367	8.1	23
8	24	1956	3888	1	16	8.2	1
8	25	1957	3889	1	32	8.2	2
8	26	1958	3890	1	48	8.2	3
8	27	1959	3891	1	64	8.2	4
8	28	1960	3892	1	80	8.2	5
8	29	1961	3893	1	96	8.2	6
8	30	1962	3894	1	112	8.2	7
8	31	1963	3895	1	128	8.2	8
8	32	1964	3896	1	144	8.2	9
8	33	1965	3897	1	160	8.2	10
8	34	1966	3898	1	176	8.2	11
8	35	1967	3899	1	192	8.2	12
8	36	1968	3900	1	208	8.2	13

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	37	1969	3901	1	224	8.2	14
8	38	1970	3902	1	240	8.2	15
8	39	1971	3903	1	256	8.2	16
8	40	1972	3904	1	272	8.2	17
8	41	1973	3905	1	288	8.2	18
8	42	1974	3906	1	304	8.2	19
8	43	1975	3907	1	320	8.2	20
8	44	1976	3908	1	336	8.2	21
8	45	1977	3909	1	352	8.2	22
8	46	1978	3910	1	368	8.2	23
8	47	1979	3911	2	15	8.1	1
8	48	1980	3912	2	31	8.1	2
8	49	1981	3913	2	47	8.1	3
8	50	1982	3914	2	63	8.1	4
8	51	1983	3915	2	79	8.1	5
8	52	1984	3916	2	95	8.1	6
8	53	1985	3917	2	111	8.1	7
8	54	1986	3918	2	127	8.1	8
8	55	1987	3919	2	143	8.1	9
8	56	1988	3920	2	159	8.1	10
8	57	1989	3921	2	175	8.1	11
8	58	1990	3922	2	191	8.1	12
8	59	1991	3923	2	207	8.1	13
8	60	1992	3924	2	223	8.1	14
8	61	1993	3925	2	239	8.1	15
8	62	1994	3926	2	255	8.1	16
8	63	1995	3927	2	271	8.1	17
8	64	1996	3928	2	287	8.1	18
8	65	1997	3929	2	303	8.1	19
8	66	1998	3930	2	319	8.1	20
8	67	1999	3931	2	335	8.1	21
8	68	2000	3932	2	351	8.1	22
8	69	2001	3933	2	367	8.1	23
8	70	2002	3934	2	16	8.2	1
8	71	2003	3935	2	32	8.2	2
8	72	2004	3936	2	48	8.2	3
8	73	2005	3937	2	64	8.2	4
8	74	2006	3938	2	80	8.2	5
8	75	2007	3939	2	96	8.2	6
8	76	2008	3940	2	112	8.2	7
8	77	2009	3941	2	128	8.2	8
8	78	2010	3942	2	144	8.2	9
8	79	2011	3943	2	160	8.2	10
8	80	2012	3944	2	176	8.2	11
8	81	2013	3945	2	192	8.2	12
8	82	2014	3946	2	208	8.2	13
8	83	2015	3947	2	224	8.2	14
8	84	2016	3948	2	240	8.2	15
8	85	2017	3949	2	256	8.2	16
8	86	2018	3950	2	272	8.2	17
8	87	2019	3951	2	288	8.2	18
8	88	2020	3952	2	304	8.2	19
8	89	2021	3953	2	320	8.2	20
8	90	2022	3954	2	336	8.2	21
8	91	2023	3955	2	352	8.2	22
8	92	2024	3956	2	368	8.2	23
8	93	2025	3957	3	15	8.1	1
8	94	2026	3958	3	31	8.1	2
8	95	2027	3959	3	47	8.1	3
8	96	2028	3960	3	63	8.1	4
8	97	2029	3961	3	79	8.1	5
8	98	2030	3962	3	95	8.1	6
8	99	2031	3963	3	111	8.1	7
8	100	2032	3964	3	127	8.1	8
8	101	2033	3965	3	143	8.1	9
8	102	2034	3966	3	159	8.1	10
8	103	2035	3967	3	175	8.1	11
8	104	2036	3968	3	191	8.1	12
8	105	2037	3969	3	207	8.1	13
8	106	2038	3970	3	223	8.1	14
8	107	2039	3971	3	239	8.1	15
8	108	2040	3972	3	255	8.1	16
8	109	2041	3973	3	271	8.1	17
8	110	2042	3974	3	287	8.1	18
8	111	2043	3975	3	303	8.1	19
8	112	2044	3976	3	319	8.1	20
8	113	2045	3977	3	335	8.1	21
8	114	2046	3978	3	351	8.1	22
8	115	2047	3979	3	367	8.1	23
8	116	2048	3980	3	16	8.2	1
8	117	2049	3981	3	32	8.2	2
8	118	2050	3982	3	48	8.2	3
8	119	2051	3983	3	64	8.2	4
8	120	2052	3984	3	80	8.2	5
8	121	2053	3985	3	96	8.2	6
8	122	2054	3986	3	112	8.2	7
8	123	2055	3987	3	128	8.2	8
8	124	2056	3988	3	144	8.2	9
8	125	2057	3989	3	160	8.2	10
8	126	2058	3990	3	176	8.2	11

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	127	2059	3991	3	192	8.2	12
8	128	2060	3992	3	208	8.2	13
8	129	2061	3993	3	224	8.2	14
8	130	2062	3994	3	240	8.2	15
8	131	2063	3995	3	256	8.2	16
8	132	2064	3996	3	272	8.2	17
8	133	2065	3997	3	288	8.2	18
8	134	2066	3998	3	304	8.2	19
8	135	2067	3999	3	320	8.2	20
8	136	2068	4000	3	336	8.2	21
8	137	2069	4001	3	352	8.2	22
8	138	2070	4002	3	368	8.2	23
8	139	2071	4003	4	15	8.1	1
8	140	2072	4004	4	31	8.1	2
8	141	2073	4005	4	47	8.1	3
8	142	2074	4006	4	63	8.1	4
8	143	2075	4007	4	79	8.1	5
8	144	2076	4008	4	95	8.1	6
8	145	2077	4009	4	111	8.1	7
8	146	2078	4010	4	127	8.1	8
8	147	2079	4011	4	143	8.1	9
8	148	2080	4012	4	159	8.1	10
8	149	2081	4013	4	175	8.1	11
8	150	2082	4014	4	191	8.1	12
8	151	2083	4015	4	207	8.1	13
8	152	2084	4016	4	223	8.1	14
8	153	2085	4017	4	239	8.1	15
8	154	2086	4018	4	255	8.1	16
8	155	2087	4019	4	271	8.1	17
8	156	2088	4020	4	287	8.1	18
8	157	2089	4021	4	303	8.1	19
8	158	2090	4022	4	319	8.1	20
8	159	2091	4023	4	335	8.1	21
8	160	2092	4024	4	351	8.1	22
8	161	2093	4025	4	367	8.1	23
8	162	2094	4026	4	16	8.2	1
8	163	2095	4027	4	32	8.2	2
8	164	2096	4028	4	48	8.2	3
8	165	2097	4029	4	64	8.2	4
8	166	2098	4030	4	80	8.2	5
8	167	2099	4031	4	96	8.2	6
8	168	2100	4032	4	112	8.2	7
8	169	2101	4033	4	128	8.2	8
8	170	2102	4034	4	144	8.2	9
8	171	2103	4035	4	160	8.2	10
8	172	2104	4036	4	176	8.2	11
8	173	2105	4037	4	192	8.2	12
8	174	2106	4038	4	208	8.2	13
8	175	2107	4039	4	224	8.2	14
8	176	2108	4040	4	240	8.2	15
8	177	2109	4041	4	256	8.2	16
8	178	2110	4042	4	272	8.2	17
8	179	2111	4043	4	288	8.2	18
8	180	2112	4044	4	304	8.2	19
8	181	2113	4045	4	320	8.2	20
8	182	2114	4046	4	336	8.2	21
8	183	2115	4047	4	352	8.2	22
8	184	2116	4048	4	368	8.2	23
8	185	2117	4049	5	15	8.1	1
8	186	2118	4050	5	31	8.1	2
8	187	2119	4051	5	47	8.1	3
8	188	2120	4052	5	63	8.1	4
8	189	2121	4053	5	79	8.1	5
8	190	2122	4054	5	95	8.1	6
8	191	2123	4055	5	111	8.1	7
8	192	2124	4056	5	127	8.1	8
8	193	2125	4057	5	143	8.1	9
8	194	2126	4058	5	159	8.1	10
8	195	2127	4059	5	175	8.1	11
8	196	2128	4060	5	191	8.1	12
8	197	2129	4061	5	207	8.1	13
8	198	2130	4062	5	223	8.1	14
8	199	2131	4063	5	239	8.1	15
8	200	2132	4064	5	255	8.1	16
8	201	2133	4065	5	271	8.1	17
8	202	2134	4066	5	287	8.1	18
8	203	2135	4067	5	303	8.1	19
8	204	2136	4068	5	319	8.1	20
8	205	2137	4069	5	335	8.1	21
8	206	2138	4070	5	351	8.1	22
8	207	2139	4071	5	367	8.1	23
8	208	2140	4072	5	16	8.2	1
8	209	2141	4073	5	32	8.2	2
8	210	2142	4074	5	48	8.2	3
8	211	2143	4075	5	64	8.2	4
8	212	2144	4076	5	80	8.2	5
8	213	2145	4077	5	96	8.2	6
8	214	2146	4078	5	112	8.2	7
8	215	2147	4079	5	128	8.2	8
8	216	2148	4080	5	144	8.2	9

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	217	2149	4081	5	160	8.2	10
8	218	2150	4082	5	176	8.2	11
8	219	2151	4083	5	192	8.2	12
8	220	2152	4084	5	208	8.2	13
8	221	2153	4085	5	224	8.2	14
8	222	2154	4086	5	240	8.2	15
8	223	2155	4087	5	256	8.2	16
8	224	2156	4088	5	272	8.2	17
8	225	2157	4089	5	288	8.2	18
8	226	2158	4090	5	304	8.2	19
8	227	2159	4091	5	320	8.2	20
8	228	2160	4092	5	336	8.2	21
8	229	2161	4093	5	352	8.2	22
8	230	2162	4094	5	368	8.2	23
8	231	2163	4095	6	15	8.1	1
8	232	2164	4096	6	31	8.1	2
8	233	2165	4097	6	47	8.1	3
8	234	2166	4098	6	63	8.1	4
8	235	2167	4099	6	79	8.1	5
8	236	2168	4100	6	95	8.1	6
8	237	2169	4101	6	111	8.1	7
8	238	2170	4102	6	127	8.1	8
8	239	2171	4103	6	143	8.1	9
8	240	2172	4104	6	159	8.1	10
8	241	2173	4105	6	175	8.1	11
8	242	2174	4106	6	191	8.1	12
8	243	2175	4107	6	207	8.1	13
8	244	2176	4108	6	223	8.1	14
8	245	2177	4109	6	239	8.1	15
8	246	2178	4110	6	255	8.1	16
8	247	2179	4111	6	271	8.1	17
8	248	2180	4112	6	287	8.1	18
8	249	2181	4113	6	303	8.1	19
8	250	2182	4114	6	319	8.1	20
8	251	2183	4115	6	335	8.1	21
8	252	2184	4116	6	351	8.1	22
8	253	2185	4117	6	367	8.1	23
8	254	2186	4118	6	16	8.2	1
8	255	2187	4119	6	32	8.2	2
8	256	2188	4120	6	48	8.2	3
8	257	2189	4121	6	64	8.2	4
8	258	2190	4122	6	80	8.2	5
8	259	2191	4123	6	96	8.2	6
8	260	2192	4124	6	112	8.2	7

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	261	2193	4125	6	128	8.2	8
8	262	2194	4126	6	144	8.2	9
8	263	2195	4127	6	160	8.2	10
8	264	2196	4128	6	176	8.2	11
8	265	2197	4129	6	192	8.2	12
8	266	2198	4130	6	208	8.2	13
8	267	2199	4131	6	224	8.2	14
8	268	2200	4132	6	240	8.2	15
8	269	2201	4133	6	256	8.2	16
8	270	2202	4134	6	272	8.2	17
8	271	2203	4135	6	288	8.2	18
8	272	2204	4136	6	304	8.2	19
8	273	2205	4137	6	320	8.2	20
8	274	2206	4138	6	336	8.2	21
8	275	2207	4139	6	352	8.2	22
8	276	2208	4140	6	368	8.2	23
8	277	-	4141	7	15	8.1	1
8	278	-	4142	7	31	8.1	2
8	279	-	4143	7	47	8.1	3
8	280	-	4144	7	63	8.1	4
8	281	-	4145	7	79	8.1	5
8	282	-	4146	7	95	8.1	6
8	283	-	4147	7	111	8.1	7
8	284	-	4148	7	127	8.1	8
8	285	-	4149	7	143	8.1	9
8	286	-	4150	7	159	8.1	10
8	287	-	4151	7	175	8.1	11
8	288	-	4152	7	191	8.1	12
8	289	-	4153	7	207	8.1	13
8	290	-	4154	7	223	8.1	14
8	291	-	4155	7	239	8.1	15
8	292	-	4156	7	255	8.1	16
8	293	-	4157	7	271	8.1	17
8	294	-	4158	7	287	8.1	18
8	295	-	4159	7	303	8.1	19
8	296	-	4160	7	319	8.1	20
8	297	-	4161	7	335	8.1	21
8	298	-	4162	7	351	8.1	22
8	299	-	4163	7	367	8.1	23
8	300	-	4164	7	16	8.2	1
8	301	-	4165	7	32	8.2	2
8	302	-	4166	7	48	8.2	3
8	303	-	4167	7	64	8.2	4
8	304	-	4168	7	80	8.2	5

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	305	-	4169	7	96	8.2	6
8	306	-	4170	7	112	8.2	7
8	307	-	4171	7	128	8.2	8
8	308	-	4172	7	144	8.2	9
8	309	-	4173	7	160	8.2	10
8	310	-	4174	7	176	8.2	11
8	311	-	4175	7	192	8.2	12
8	312	-	4176	7	208	8.2	13
8	313	-	4177	7	224	8.2	14
8	314	-	4178	7	240	8.2	15
8	315	-	4179	7	256	8.2	16
8	316	-	4180	7	272	8.2	17
8	317	-	4181	7	288	8.2	18
8	318	-	4182	7	304	8.2	19
8	319	-	4183	7	320	8.2	20
8	320	-	4184	7	336	8.2	21
8	321	-	4185	7	352	8.2	22
8	322	-	4186	7	368	8.2	23
8	323	-	4187	8	15	8.1	1
8	324	-	4188	8	31	8.1	2
8	325	-	4189	8	47	8.1	3
8	326	-	4190	8	63	8.1	4
8	327	-	4191	8	79	8.1	5
8	328	-	4192	8	95	8.1	6
8	329	-	4193	8	111	8.1	7
8	330	-	4194	8	127	8.1	8
8	331	-	4195	8	143	8.1	9
8	332	-	4196	8	159	8.1	10
8	333	-	4197	8	175	8.1	11
8	334	-	4198	8	191	8.1	12
8	335	-	4199	8	207	8.1	13
8	336	-	4200	8	223	8.1	14
8	337	-	4201	8	239	8.1	15
8	338	-	4202	8	255	8.1	16
8	339	-	4203	8	271	8.1	17
8	340	-	4204	8	287	8.1	18
8	341	-	4205	8	303	8.1	19
8	342	-	4206	8	319	8.1	20
8	343	-	4207	8	335	8.1	21
8	344	-	4208	8	351	8.1	22
8	345	-	4209	8	367	8.1	23
8	346	-	4210	8	16	8.2	1
8	347	-	4211	8	32	8.2	2
8	348	-	4212	8	48	8.2	3

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	349	-	4213	8	64	8.2	4
8	350	-	4214	8	80	8.2	5
8	351	-	4215	8	96	8.2	6
8	352	-	4216	8	112	8.2	7
8	353	-	4217	8	128	8.2	8
8	354	-	4218	8	144	8.2	9
8	355	-	4219	8	160	8.2	10
8	356	-	4220	8	176	8.2	11
8	357	-	4221	8	192	8.2	12
8	358	-	4222	8	208	8.2	13
8	359	-	4223	8	224	8.2	14
8	360	-	4224	8	240	8.2	15
8	361	-	4225	8	256	8.2	16
8	362	-	4226	8	272	8.2	17
8	363	-	4227	8	288	8.2	18
8	364	-	4228	8	304	8.2	19
8	365	-	4229	8	320	8.2	20
8	366	-	4230	8	336	8.2	21
8	367	-	4231	8	352	8.2	22
8	368	-	4232	8	368	8.2	23
8	369	-	4233	9	15	8.1	1
8	370	-	4234	9	31	8.1	2
8	371	-	4235	9	47	8.1	3
8	372	-	4236	9	63	8.1	4
8	373	-	4237	9	79	8.1	5
8	374	-	4238	9	95	8.1	6
8	375	-	4239	9	111	8.1	7
8	376	-	4240	9	127	8.1	8
8	377	-	4241	9	143	8.1	9
8	378	-	4242	9	159	8.1	10
8	379	-	4243	9	175	8.1	11
8	380	-	4244	9	191	8.1	12
8	381	-	4245	9	207	8.1	13
8	382	-	4246	9	223	8.1	14
8	383	-	4247	9	239	8.1	15
8	384	-	4248	9	255	8.1	16
8	385	-	4249	9	271	8.1	17
8	386	-	4250	9	287	8.1	18
8	387	-	4251	9	303	8.1	19
8	388	-	4252	9	319	8.1	20
8	389	-	4253	9	335	8.1	21
8	390	-	4254	9	351	8.1	22
8	391	-	4255	9	367	8.1	23
8	392	-	4256	9	16	8.2	1

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	393	-	4257	9	32	8.2	2
8	394	-	4258	9	48	8.2	3
8	395	-	4259	9	64	8.2	4
8	396	-	4260	9	80	8.2	5
8	397	-	4261	9	96	8.2	6
8	398	-	4262	9	112	8.2	7
8	399	-	4263	9	128	8.2	8
8	400	-	4264	9	144	8.2	9
8	401	-	4265	9	160	8.2	10
8	402	-	4266	9	176	8.2	11
8	403	-	4267	9	192	8.2	12
8	404	-	4268	9	208	8.2	13
8	405	-	4269	9	224	8.2	14
8	406	-	4270	9	240	8.2	15
8	407	-	4271	9	256	8.2	16
8	408	-	4272	9	272	8.2	17
8	409	-	4273	9	288	8.2	18
8	410	-	4274	9	304	8.2	19
8	411	-	4275	9	320	8.2	20
8	412	-	4276	9	336	8.2	21
8	413	-	4277	9	352	8.2	22
8	414	-	4278	9	368	8.2	23
8	415	-	4279	10	15	8.1	1
8	416	-	4280	10	31	8.1	2
8	417	-	4281	10	47	8.1	3
8	418	-	4282	10	63	8.1	4
8	419	-	4283	10	79	8.1	5
8	420	-	4284	10	95	8.1	6
8	421	-	4285	10	111	8.1	7
8	422	-	4286	10	127	8.1	8
8	423	-	4287	10	143	8.1	9
8	424	-	4288	10	159	8.1	10
8	425	-	4289	10	175	8.1	11
8	426	-	4290	10	191	8.1	12
8	427	-	4291	10	207	8.1	13
8	428	-	4292	10	223	8.1	14
8	429	-	4293	10	239	8.1	15
8	430	-	4294	10	255	8.1	16
8	431	-	4295	10	271	8.1	17
8	432	-	4296	10	287	8.1	18
8	433	-	4297	10	303	8.1	19
8	434	-	4298	10	319	8.1	20
8	435	-	4299	10	335	8.1	21
8	436	-	4300	10	351	8.1	22
8	437	-	4301	10	367	8.1	23
8	438	-	4302	10	16	8.2	1
8	439	-	4303	10	32	8.2	2
8	440	-	4304	10	48	8.2	3
8	441	-	4305	10	64	8.2	4
8	442	-	4306	10	80	8.2	5
8	443	-	4307	10	96	8.2	6
8	444	-	4308	10	112	8.2	7
8	445	-	4309	10	128	8.2	8
8	446	-	4310	10	144	8.2	9
8	447	-	4311	10	160	8.2	10
8	448	-	4312	10	176	8.2	11
8	449	-	4313	10	192	8.2	12
8	450	-	4314	10	208	8.2	13
8	451	-	4315	10	224	8.2	14
8	452	-	4316	10	240	8.2	15
8	453	-	4317	10	256	8.2	16
8	454	-	4318	10	272	8.2	17
8	455	-	4319	10	288	8.2	18
8	456	-	4320	10	304	8.2	19
8	457	-	4321	10	320	8.2	20
8	458	-	4322	10	336	8.2	21
8	459	-	4323	10	352	8.2	22
8	460	-	4324	10	368	8.2	23
8	461	-	4325	11	15	8.1	1
8	462	-	4326	11	31	8.1	2
8	463	-	4327	11	47	8.1	3
8	464	-	4328	11	63	8.1	4
8	465	-	4329	11	79	8.1	5
8	466	-	4330	11	95	8.1	6
8	467	-	4331	11	111	8.1	7
8	468	-	4332	11	127	8.1	8
8	469	-	4333	11	143	8.1	9
8	470	-	4334	11	159	8.1	10
8	471	-	4335	11	175	8.1	11
8	472	-	4336	11	191	8.1	12
8	473	-	4337	11	207	8.1	13
8	474	-	4338	11	223	8.1	14
8	475	-	4339	11	239	8.1	15
8	476	-	4340	11	255	8.1	16
8	477	-	4341	11	271	8.1	17
8	478	-	4342	11	287	8.1	18
8	479	-	4343	11	303	8.1	19
8	480	-	4344	11	319	8.1	20
8	481	-	4345	11	335	8.1	21
8	482	-	4346	11	351	8.1	22

TABLE 7.5 - 46x8 and 46x8-M Daughterboard Relay Look-Up Table (continued)

row (Y)	col (X)	Logical Switch No. (276x8)	Logical Switch No. (552x8)	D'card No.	D'card RL Ref.	D'card grid location Y	D'card grid location X
8	483	-	4347	11	367	8.1	23
8	484	-	4348	11	16	8.2	1
8	485	-	4349	11	32	8.2	2
8	486	-	4350	11	48	8.2	3
8	487	-	4351	11	64	8.2	4
8	488	-	4352	11	80	8.2	5
8	489	-	4353	11	96	8.2	6
8	490	-	4354	11	112	8.2	7
8	491	-	4355	11	128	8.2	8
8	492	-	4356	11	144	8.2	9
8	493	-	4357	11	160	8.2	10
8	494	-	4358	11	176	8.2	11
8	495	-	4359	11	192	8.2	12
8	496	-	4360	11	208	8.2	13
8	497	-	4361	11	224	8.2	14
8	498	-	4362	11	240	8.2	15
8	499	-	4363	11	256	8.2	16
8	500	-	4364	11	272	8.2	17
8	501	-	4365	11	288	8.2	18
8	502	-	4366	11	304	8.2	19
8	503	-	4367	11	320	8.2	20
8	504	-	4368	11	336	8.2	21
8	505	-	4369	11	352	8.2	22
8	506	-	4370	11	368	8.2	23
8	507	-	4371	12	15	8.1	1
8	508	-	4372	12	31	8.1	2
8	509	-	4373	12	47	8.1	3
8	510	-	4374	12	63	8.1	4
8	511	-	4375	12	79	8.1	5
8	512	-	4376	12	95	8.1	6
8	513	-	4377	12	111	8.1	7
8	514	-	4378	12	127	8.1	8
8	515	-	4379	12	143	8.1	9
8	516	-	4380	12	159	8.1	10
8	517	-	4381	12	175	8.1	11
8	518	-	4382	12	191	8.1	12
8	519	-	4383	12	207	8.1	13
8	520	-	4384	12	223	8.1	14
8	521	-	4385	12	239	8.1	15
8	522	-	4386	12	255	8.1	16
8	523	-	4387	12	271	8.1	17
8	524	-	4388	12	287	8.1	18
8	525	-	4389	12	303	8.1	19
8	526	-	4390	12	319	8.1	20
8	527	-	4391	12	335	8.1	21
8	528	-	4392	12	351	8.1	22
8	529	-	4393	12	367	8.1	23
8	530	-	4394	12	16	8.2	1
8	531	-	4395	12	32	8.2	2
8	532	-	4396	12	48	8.2	3
8	533	-	4397	12	64	8.2	4
8	534	-	4398	12	80	8.2	5
8	535	-	4399	12	96	8.2	6
8	536	-	4400	12	112	8.2	7
8	537	-	4401	12	128	8.2	8
8	538	-	4402	12	144	8.2	9
8	539	-	4403	12	160	8.2	10
8	540	-	4404	12	176	8.2	11
8	541	-	4405	12	192	8.2	12
8	542	-	4406	12	208	8.2	13
8	543	-	4407	12	224	8.2	14
8	544	-	4408	12	240	8.2	15
8	545	-	4409	12	256	8.2	16
8	546	-	4410	12	272	8.2	17
8	547	-	4411	12	288	8.2	18
8	548	-	4412	12	304	8.2	19
8	549	-	4413	12	320	8.2	20
8	550	-	4414	12	336	8.2	21
8	551	-	4415	12	352	8.2	22
8	552	-	4416	12	368	8.2	23

TABLE 7.6 - 23x16 Daughterboard Isolation Relays Look-Up Table

Matrix Position	Daughter Board	Relay No.
Y1 isolation	1	369
Y2 isolation	1	370
Y3 isolation	1	371
Y4 isolation	1	372
Y5 isolation	1	373
Y6 isolation	1	374
Y7 isolation	1	375
Y8 isolation	1	376
Y9 isolation	1	377
Y10 isolation	1	378
Y11 isolation	1	379
Y12 isolation	1	380
Y13 isolation	1	381
Y14 isolation	1	382
Y15 isolation	1	383
Y16 isolation	1	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	2	369
Y2 isolation	2	370
Y3 isolation	2	371
Y4 isolation	2	372
Y5 isolation	2	373
Y6 isolation	2	374
Y7 isolation	2	375
Y8 isolation	2	376
Y9 isolation	2	377
Y10 isolation	2	378
Y11 isolation	2	379
Y12 isolation	2	380
Y13 isolation	2	381
Y14 isolation	2	382
Y15 isolation	2	383
Y16 isolation	2	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	3	369
Y2 isolation	3	370
Y3 isolation	3	371
Y4 isolation	3	372
Y5 isolation	3	373
Y6 isolation	3	374
Y7 isolation	3	375
Y8 isolation	3	376
Y9 isolation	3	377
Y10 isolation	3	378
Y11 isolation	3	379
Y12 isolation	3	380
Y13 isolation	3	381
Y14 isolation	3	382
Y15 isolation	3	383
Y16 isolation	3	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	4	369
Y2 isolation	4	370
Y3 isolation	4	371
Y4 isolation	4	372
Y5 isolation	4	373
Y6 isolation	4	374
Y7 isolation	4	375
Y8 isolation	4	376
Y9 isolation	4	377
Y10 isolation	4	378
Y11 isolation	4	379
Y12 isolation	4	380
Y13 isolation	4	381
Y14 isolation	4	382
Y15 isolation	4	383
Y16 isolation	4	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	5	369
Y2 isolation	5	370
Y3 isolation	5	371
Y4 isolation	5	372
Y5 isolation	5	373
Y6 isolation	5	374
Y7 isolation	5	375
Y8 isolation	5	376
Y9 isolation	5	377
Y10 isolation	5	378
Y11 isolation	5	379
Y12 isolation	5	380
Y13 isolation	5	381
Y14 isolation	5	382
Y15 isolation	5	383
Y16 isolation	5	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	6	369
Y2 isolation	6	370
Y3 isolation	6	371
Y4 isolation	6	372
Y5 isolation	6	373
Y6 isolation	6	374
Y7 isolation	6	375
Y8 isolation	6	376
Y9 isolation	6	377
Y10 isolation	6	378
Y11 isolation	6	379
Y12 isolation	6	380
Y13 isolation	6	381
Y14 isolation	6	382
Y15 isolation	6	383
Y16 isolation	6	384

TABLE 7.6 - 23x16 Daughterboard Isolation Relays Look-Up Table (continued)

Matrix Position	Daughter Board	Relay No.
Y1 isolation	7	369
Y2 isolation	7	370
Y3 isolation	7	371
Y4 isolation	7	372
Y5 isolation	7	373
Y6 isolation	7	374
Y7 isolation	7	375
Y8 isolation	7	376
Y9 isolation	7	377
Y10 isolation	7	378
Y11 isolation	7	379
Y12 isolation	7	380
Y13 isolation	7	381
Y14 isolation	7	382
Y15 isolation	7	383
Y16 isolation	7	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	8	369
Y2 isolation	8	370
Y3 isolation	8	371
Y4 isolation	8	372
Y5 isolation	8	373
Y6 isolation	8	374
Y7 isolation	8	375
Y8 isolation	8	376
Y9 isolation	8	377
Y10 isolation	8	378
Y11 isolation	8	379
Y12 isolation	8	380
Y13 isolation	8	381
Y14 isolation	8	382
Y15 isolation	8	383
Y16 isolation	8	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	9	369
Y2 isolation	9	370
Y3 isolation	9	371
Y4 isolation	9	372
Y5 isolation	9	373
Y6 isolation	9	374
Y7 isolation	9	375
Y8 isolation	9	376
Y9 isolation	9	377
Y10 isolation	9	378
Y11 isolation	9	379
Y12 isolation	9	380
Y13 isolation	9	381
Y14 isolation	9	382
Y15 isolation	9	383
Y16 isolation	9	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	10	369
Y2 isolation	10	370
Y3 isolation	10	371
Y4 isolation	10	372
Y5 isolation	10	373
Y6 isolation	10	374
Y7 isolation	10	375
Y8 isolation	10	376
Y9 isolation	10	377
Y10 isolation	10	378
Y11 isolation	10	379
Y12 isolation	10	380
Y13 isolation	10	381
Y14 isolation	10	382
Y15 isolation	10	383
Y16 isolation	10	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	11	369
Y2 isolation	11	370
Y3 isolation	11	371
Y4 isolation	11	372
Y5 isolation	11	373
Y6 isolation	11	374
Y7 isolation	11	375
Y8 isolation	11	376
Y9 isolation	11	377
Y10 isolation	11	378
Y11 isolation	11	379
Y12 isolation	11	380
Y13 isolation	11	381
Y14 isolation	11	382
Y15 isolation	11	383
Y16 isolation	11	384

Matrix Position	Daughter Board	Relay No.
Y1 isolation	12	369
Y2 isolation	12	370
Y3 isolation	12	371
Y4 isolation	12	372
Y5 isolation	12	373
Y6 isolation	12	374
Y7 isolation	12	375
Y8 isolation	12	376
Y9 isolation	12	377
Y10 isolation	12	378
Y11 isolation	12	379
Y12 isolation	12	380
Y13 isolation	12	381
Y14 isolation	12	382
Y15 isolation	12	383
Y16 isolation	12	384

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table

Matrix Position		Daughter Board	Relay No.
X	Y		
1	1	1	1
1	2	1	2
1	3	1	3
1	4	1	4
1	5	1	5
1	6	1	6
1	7	1	7
1	8	1	8
1	9	1	9
1	10	1	10
1	11	1	11
1	12	1	12
1	13	1	13
1	14	1	14
1	15	1	15
1	16	1	16
2	1	1	17
2	2	1	18
2	3	1	19
2	4	1	20
2	5	1	21
2	6	1	22
2	7	1	23
2	8	1	24
2	9	1	25
2	10	1	26
2	11	1	27
2	12	1	28
2	13	1	29
2	14	1	30
2	15	1	31
2	16	1	32
3	1	1	33
3	2	1	34
3	3	1	35
3	4	1	36
3	5	1	37
3	6	1	38
3	7	1	39
3	8	1	40
3	9	1	41
3	10	1	42
3	11	1	43
3	12	1	44
3	13	1	45
3	14	1	46
3	15	1	47
3	16	1	48
4	1	1	49
4	2	1	50
4	3	1	51
4	4	1	52
4	5	1	53
4	6	1	54
4	7	1	55
4	8	1	56
4	9	1	57
4	10	1	58
4	11	1	59
4	12	1	60
4	13	1	61
4	14	1	62
4	15	1	63
4	16	1	64
5	1	1	65
5	2	1	66
5	3	1	67
5	4	1	68
5	5	1	69
5	6	1	70
5	7	1	71
5	8	1	72
5	9	1	73
5	10	1	74
5	11	1	75
5	12	1	76
5	13	1	77
5	14	1	78
5	15	1	79
5	16	1	80
6	1	1	81
6	2	1	82
6	3	1	83
6	4	1	84
6	5	1	85
6	6	1	86
6	7	1	87
6	8	1	88
6	9	1	89
6	10	1	90
6	11	1	91
6	12	1	92
6	13	1	93
6	14	1	94
6	15	1	95
6	16	1	96
7	1	1	97
7	2	1	98
7	3	1	99
7	4	1	100
7	5	1	101
7	6	1	102
7	7	1	103
7	8	1	104
7	9	1	105
7	10	1	106
7	11	1	107
7	12	1	108
7	13	1	109
7	14	1	110
7	15	1	111
7	16	1	112
8	1	1	113
8	2	1	114
8	3	1	115
8	4	1	116
8	5	1	117
8	6	1	118
8	7	1	119
8	8	1	120
8	9	1	121
8	10	1	122
8	11	1	123
8	12	1	124
8	13	1	125
8	14	1	126
8	15	1	127
8	16	1	128
9	1	1	129
9	2	1	130
9	3	1	131
9	4	1	132
9	5	1	133
9	6	1	134
9	7	1	135
9	8	1	136
9	9	1	137
9	10	1	137
9	11	1	139
9	12	1	140
9	13	1	141
9	14	1	142
9	15	1	143
9	16	1	144
10	1	1	145
10	2	1	146
10	3	1	147
10	4	1	148
10	5	1	149
10	6	1	150
10	7	1	151
10	8	1	152
10	9	1	153
10	10	1	154
10	11	1	155
10	12	1	156
10	13	1	157
10	14	1	158
10	15	1	159
10	16	1	160
11	1	1	161
11	2	1	162
11	3	1	163
11	4	1	164
11	5	1	165
11	6	1	166
11	7	1	167
11	8	1	168
11	9	1	169
11	10	1	170
11	11	1	171
11	12	1	172
11	13	1	173
11	14	1	174
11	15	1	175
11	16	1	176
12	1	1	177
12	2	1	178
12	3	1	179
12	4	1	180
12	5	1	181
12	6	1	182
12	7	1	183
12	8	1	184
12	9	1	185
12	10	1	186
12	11	1	187
12	12	1	188
12	13	1	189
12	14	1	190
12	15	1	191
12	16	1	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
13	1	1	193
13	2	1	194
13	3	1	195
13	4	1	196
13	5	1	197
13	6	1	198
13	7	1	199
13	8	1	200
13	9	1	201
13	10	1	202
13	11	1	203
13	12	1	204
13	13	1	205
13	14	1	206
13	15	1	207
13	16	1	208
14	1	1	209
14	2	1	210
14	3	1	211
14	4	1	212
14	5	1	213
14	6	1	214
14	7	1	215
14	8	1	216
14	9	1	217
14	10	1	218
14	11	1	219
14	12	1	220
14	13	1	221
14	14	1	222
14	15	1	223
14	16	1	224
15	1	1	225
15	2	1	226
15	3	1	227
15	4	1	228
15	5	1	229
15	6	1	230
15	7	1	231
15	8	1	232
15	9	1	233
15	10	1	234
15	11	1	235
15	12	1	236
15	13	1	237
15	14	1	238
15	15	1	239
15	16	1	240

Matrix Position		Daughter Board	Relay No.
X	Y		
16	1	1	241
16	2	1	242
16	3	1	243
16	4	1	244
16	5	1	245
16	6	1	246
16	7	1	247
16	8	1	248
16	9	1	249
16	10	1	250
16	11	1	251
16	12	1	252
16	13	1	253
16	14	1	254
16	15	1	255
16	16	1	256
17	1	1	257
17	2	1	258
17	3	1	259
17	4	1	260
17	5	1	261
17	6	1	262
17	7	1	263
17	8	1	264
17	9	1	265
17	10	1	266
17	11	1	267
17	12	1	268
17	13	1	269
17	14	1	270
17	15	1	271
17	16	1	272
18	1	1	273
18	2	1	274
18	3	1	275
18	4	1	276
18	5	1	277
18	6	1	278
18	7	1	279
18	8	1	280
18	9	1	281
18	10	1	282
18	11	1	283
18	12	1	284
18	13	1	285
18	14	1	286
18	15	1	287
18	16	1	288

Matrix Position		Daughter Board	Relay No.
X	Y		
19	1	1	289
19	2	1	290
19	3	1	291
19	4	1	292
19	5	1	293
19	6	1	294
19	7	1	295
19	8	1	296
19	9	1	297
19	10	1	298
19	11	1	299
19	12	1	300
19	13	1	301
19	14	1	302
19	15	1	303
19	16	1	304
20	1	1	305
20	2	1	306
20	3	1	307
20	4	1	308
20	5	1	309
20	6	1	310
20	7	1	311
20	8	1	312
20	9	1	313
20	10	1	314
20	11	1	315
20	12	1	316
20	13	1	317
20	14	1	318
20	15	1	319
20	16	1	320
21	1	1	321
21	2	1	322
21	3	1	323
21	4	1	324
21	5	1	325
21	6	1	326
21	7	1	327
21	8	1	328
21	9	1	329
21	10	1	330
21	11	1	331
21	12	1	332
21	13	1	333
21	14	1	334
21	15	1	335
21	16	1	336

Matrix Position		Daughter Board	Relay No.
X	Y		
22	1	1	337
22	2	1	338
22	3	1	339
22	4	1	340
22	5	1	341
22	6	1	342
22	7	1	343
22	8	1	344
22	9	1	345
22	10	1	346
22	11	1	347
22	12	1	348
22	13	1	349
22	14	1	350
22	15	1	351
22	16	1	352
23	1	1	353
23	2	1	354
23	3	1	355
23	4	1	356
23	5	1	357
23	6	1	358
23	7	1	359
23	8	1	360
23	9	1	361
23	10	1	362
23	11	1	363
23	12	1	364
23	13	1	365
23	14	1	366
23	15	1	367
23	16	1	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
24	1	2	1
24	2	2	2
24	3	2	3
24	4	2	4
24	5	2	5
24	6	2	6
24	7	2	7
24	8	2	8
24	9	2	9
24	10	2	10
24	11	2	11
24	12	2	12
24	13	2	13
24	14	2	14
24	15	2	15
24	16	2	16
25	1	2	17
25	2	2	18
25	3	2	19
25	4	2	20
25	5	2	21
25	6	2	22
25	7	2	23
25	8	2	24
25	9	2	25
25	10	2	26
25	11	2	27
25	12	2	28
25	13	2	29
25	14	2	30
25	15	2	31
25	16	2	32
26	1	2	33
26	2	2	34
26	3	2	35
26	4	2	36
26	5	2	37
26	6	2	38
26	7	2	39
26	8	2	40
26	9	2	41
26	10	2	42
26	11	2	43
26	12	2	44
26	13	2	45
26	14	2	46
26	15	2	47
26	16	2	48
27	1	2	49
27	2	2	50
27	3	2	51
27	4	2	52
27	5	2	53
27	6	2	54
27	7	2	55
27	8	2	56
27	9	2	57
27	10	2	58
27	11	2	59
27	12	2	60
27	13	2	61
27	14	2	62
27	15	2	63
27	16	2	64
28	1	2	65
28	2	2	66
28	3	2	67
28	4	2	68
28	5	2	69
28	6	2	70
28	7	2	71
28	8	2	72
28	9	2	73
28	10	2	74
28	11	2	75
28	12	2	76
28	13	2	77
28	14	2	78
28	15	2	79
28	16	2	80
29	1	2	81
29	2	2	82
29	3	2	83
29	4	2	84
29	5	2	85
29	6	2	86
29	7	2	87
29	8	2	88
29	9	2	89
29	10	2	90
29	11	2	91
29	12	2	92
29	13	2	93
29	14	2	94
29	15	2	95
29	16	2	96
30	1	2	97
30	2	2	98
30	3	2	99
30	4	2	100
30	5	2	101
30	6	2	102
30	7	2	103
30	8	2	104
30	9	2	105
30	10	2	106
30	11	2	107
30	12	2	108
30	13	2	109
30	14	2	110
30	15	2	111
30	16	2	112
31	1	2	113
31	2	2	114
31	3	2	115
31	4	2	116
31	5	2	117
31	6	2	118
31	7	2	119
31	8	2	120
31	9	2	121
31	10	2	122
31	11	2	123
31	12	2	124
31	13	2	125
31	14	2	126
31	15	2	127
31	16	2	128
32	1	2	129
32	2	2	130
32	3	2	131
32	4	2	132
32	5	2	133
32	6	2	134
32	7	2	135
32	8	2	136
32	9	2	137
32	10	2	137
32	11	2	139
32	12	2	140
32	13	2	141
32	14	2	142
32	15	2	143
32	16	2	144
33	1	2	145
33	2	2	146
33	3	2	147
33	4	2	148
33	5	2	149
33	6	2	150
33	7	2	151
33	8	2	152
33	9	2	153
33	10	2	154
33	11	2	155
33	12	2	156
33	13	2	157
33	14	2	158
33	15	2	159
33	16	2	160
34	1	2	161
34	2	2	162
34	3	2	163
34	4	2	164
34	5	2	165
34	6	2	166
34	7	2	167
34	8	2	168
34	9	2	169
34	10	2	170
34	11	2	171
34	12	2	172
34	13	2	173
34	14	2	174
34	15	2	175
34	16	2	176
35	1	2	177
35	2	2	178
35	3	2	179
35	4	2	180
35	5	2	181
35	6	2	182
35	7	2	183
35	8	2	184
35	9	2	185
35	10	2	186
35	11	2	187
35	12	2	188
35	13	2	189
35	14	2	190
35	15	2	191
35	16	2	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
36	1	2	193
36	2	2	194
36	3	2	195
36	4	2	196
36	5	2	197
36	6	2	198
36	7	2	199
36	8	2	200
36	9	2	201
36	10	2	202
36	11	2	203
36	12	2	204
36	13	2	205
36	14	2	206
36	15	2	207
36	16	2	208
37	1	2	209
37	2	2	210
37	3	2	211
37	4	2	212
37	5	2	213
37	6	2	214
37	7	2	215
37	8	2	216
37	9	2	217
37	10	2	218
37	11	2	219
37	12	2	220
37	13	2	221
37	14	2	222
37	15	2	223
37	16	2	224
38	1	2	225
38	2	2	226
38	3	2	227
38	4	2	228
38	5	2	229
38	6	2	230
38	7	2	231
38	8	2	232
38	9	2	233
38	10	2	234
38	11	2	235
38	12	2	236
38	13	2	237
38	14	2	238
38	15	2	239
38	16	2	240

Matrix Position		Daughter Board	Relay No.
X	Y		
39	1	2	241
39	2	2	242
39	3	2	243
39	4	2	244
39	5	2	245
39	6	2	246
39	7	2	247
39	8	2	248
39	9	2	249
39	10	2	250
39	11	2	251
39	12	2	252
39	13	2	253
39	14	2	254
39	15	2	255
39	16	2	256
40	1	2	257
40	2	2	258
40	3	2	259
40	4	2	260
40	5	2	261
40	6	2	262
40	7	2	263
40	8	2	264
40	9	2	265
40	10	2	266
40	11	2	267
40	12	2	268
40	13	2	269
40	14	2	270
40	15	2	271
40	16	2	272
41	1	2	273
41	2	2	274
41	3	2	275
41	4	2	276
41	5	2	277
41	6	2	278
41	7	2	279
41	8	2	280
41	9	2	281
41	10	2	282
41	11	2	283
41	12	2	284
41	13	2	285
41	14	2	286
41	15	2	287
41	16	2	288

Matrix Position		Daughter Board	Relay No.
X	Y		
42	1	2	289
42	2	2	290
42	3	2	291
42	4	2	292
42	5	2	293
42	6	2	294
42	7	2	295
42	8	2	296
42	9	2	297
42	10	2	298
42	11	2	299
42	12	2	300
42	13	2	301
42	14	2	302
42	15	2	303
42	16	2	304
43	1	2	305
43	2	2	306
43	3	2	307
43	4	2	308
43	5	2	309
43	6	2	310
43	7	2	311
43	8	2	312
43	9	2	313
43	10	2	314
43	11	2	315
43	12	2	316
43	13	2	317
43	14	2	318
43	15	2	319
43	16	2	320
44	1	2	321
44	2	2	322
44	3	2	323
44	4	2	324
44	5	2	325
44	6	2	326
44	7	2	327
44	8	2	328
44	9	2	329
44	10	2	330
44	11	2	331
44	12	2	332
44	13	2	333
44	14	2	334
44	15	2	335
44	16	2	336

Matrix Position		Daughter Board	Relay No.
X	Y		
45	1	2	337
45	2	2	338
45	3	2	339
45	4	2	340
45	5	2	341
45	6	2	342
45	7	2	343
45	8	2	344
45	9	2	345
45	10	2	346
45	11	2	347
45	12	2	348
45	13	2	349
45	14	2	350
45	15	2	351
45	16	2	352
46	1	2	353
46	2	2	354
46	3	2	355
46	4	2	356
46	5	2	357
46	6	2	358
46	7	2	359
46	8	2	360
46	9	2	361
46	10	2	362
46	11	2	363
46	12	2	364
46	13	2	365
46	14	2	366
46	15	2	367
46	16	2	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
47	1	3	1
47	2	3	2
47	3	3	3
47	4	3	4
47	5	3	5
47	6	3	6
47	7	3	7
47	8	3	8
47	9	3	9
47	10	3	10
47	11	3	11
47	12	3	12
47	13	3	13
47	14	3	14
47	15	3	15
47	16	3	16
48	1	3	17
48	2	3	18
48	3	3	19
48	4	3	20
48	5	3	21
48	6	3	22
48	7	3	23
48	8	3	24
48	9	3	25
48	10	3	26
48	11	3	27
48	12	3	28
48	13	3	29
48	14	3	30
48	15	3	31
48	16	3	32
49	1	3	33
49	2	3	34
49	3	3	35
49	4	3	36
49	5	3	37
49	6	3	38
49	7	3	39
49	8	3	40
49	9	3	41
49	10	3	42
49	11	3	43
49	12	3	44
49	13	3	45
49	14	3	46
49	15	3	47
49	16	3	48

Matrix Position		Daughter Board	Relay No.
X	Y		
50	1	3	49
50	2	3	50
50	3	3	51
50	4	3	52
50	5	3	53
50	6	3	54
50	7	3	55
50	8	3	56
50	9	3	57
50	10	3	58
50	11	3	59
50	12	3	60
50	13	3	61
50	14	3	62
50	15	3	63
50	16	3	64
51	1	3	65
51	2	3	66
51	3	3	67
51	4	3	68
51	5	3	69
51	6	3	70
51	7	3	71
51	8	3	72
51	9	3	73
51	10	3	74
51	11	3	75
51	12	3	76
51	13	3	77
51	14	3	78
51	15	3	79
51	16	3	80
52	1	3	81
52	2	3	82
52	3	3	83
52	4	3	84
52	5	3	85
52	6	3	86
52	7	3	87
52	8	3	88
52	9	3	89
52	10	3	90
52	11	3	91
52	12	3	92
52	13	3	93
52	14	3	94
52	15	3	95
52	16	3	96

Matrix Position		Daughter Board	Relay No.
X	Y		
53	1	3	97
53	2	3	98
53	3	3	99
53	4	3	100
53	5	3	101
53	6	3	102
53	7	3	103
53	8	3	104
53	9	3	105
53	10	3	106
53	11	3	107
53	12	3	108
53	13	3	109
53	14	3	110
53	15	3	111
53	16	3	112
54	1	3	113
54	2	3	114
54	3	3	115
54	4	3	116
54	5	3	117
54	6	3	118
54	7	3	119
54	8	3	120
54	9	3	121
54	10	3	122
54	11	3	123
54	12	3	124
54	13	3	125
54	14	3	126
54	15	3	127
54	16	3	128
55	1	3	129
55	2	3	130
55	3	3	131
55	4	3	132
55	5	3	133
55	6	3	134
55	7	3	135
55	8	3	136
55	9	3	137
55	10	3	137
55	11	3	139
55	12	3	140
55	13	3	141
55	14	3	142
55	15	3	143
55	16	3	144

Matrix Position		Daughter Board	Relay No.
X	Y		
56	1	3	145
56	2	3	146
56	3	3	147
56	4	3	148
56	5	3	149
56	6	3	150
56	7	3	151
56	8	3	152
56	9	3	153
56	10	3	154
56	11	3	155
56	12	3	156
56	13	3	157
56	14	3	158
56	15	3	159
56	16	3	160
57	1	3	161
57	2	3	162
57	3	3	163
57	4	3	164
57	5	3	165
57	6	3	166
57	7	3	167
57	8	3	168
57	9	3	169
57	10	3	170
57	11	3	171
57	12	3	172
57	13	3	173
57	14	3	174
57	15	3	175
57	16	3	176
58	1	3	177
58	2	3	178
58	3	3	179
58	4	3	180
58	5	3	181
58	6	3	182
58	7	3	183
58	8	3	184
58	9	3	185
58	10	3	186
58	11	3	187
58	12	3	188
58	13	3	189
58	14	3	190
58	15	3	191
58	16	3	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
59	1	3	193
59	2	3	194
59	3	3	195
59	4	3	196
59	5	3	197
59	6	3	198
59	7	3	199
59	8	3	200
59	9	3	201
59	10	3	202
59	11	3	203
59	12	3	204
59	13	3	205
59	14	3	206
59	15	3	207
59	16	3	208
60	1	3	209
60	2	3	210
60	3	3	211
60	4	3	212
60	5	3	213
60	6	3	214
60	7	3	215
60	8	3	216
60	9	3	217
60	10	3	218
60	11	3	219
60	12	3	220
60	13	3	221
60	14	3	222
60	15	3	223
60	16	3	224
61	1	3	225
61	2	3	226
61	3	3	227
61	4	3	228
61	5	3	229
61	6	3	230
61	7	3	231
61	8	3	232
61	9	3	233
61	10	3	234
61	11	3	235
61	12	3	236
61	13	3	237
61	14	3	238
61	15	3	239
61	16	3	240

Matrix Position		Daughter Board	Relay No.
X	Y		
62	1	3	241
62	2	3	242
62	3	3	243
62	4	3	244
62	5	3	245
62	6	3	246
62	7	3	247
62	8	3	248
62	9	3	249
62	10	3	250
62	11	3	251
62	12	3	252
62	13	3	253
62	14	3	254
62	15	3	255
62	16	3	256
63	1	3	257
63	2	3	258
63	3	3	259
63	4	3	260
63	5	3	261
63	6	3	262
63	7	3	263
63	8	3	264
63	9	3	265
63	10	3	266
63	11	3	267
63	12	3	268
63	13	3	269
63	14	3	270
63	15	3	271
63	16	3	272
64	1	3	273
64	2	3	274
64	3	3	275
64	4	3	276
64	5	3	277
64	6	3	278
64	7	3	279
64	8	3	280
64	9	3	281
64	10	3	282
64	11	3	283
64	12	3	284
64	13	3	285
64	14	3	286
64	15	3	287
64	16	3	288

Matrix Position		Daughter Board	Relay No.
X	Y		
65	1	3	289
65	2	3	290
65	3	3	291
65	4	3	292
65	5	3	293
65	6	3	294
65	7	3	295
65	8	3	296
65	9	3	297
65	10	3	298
65	11	3	299
65	12	3	300
65	13	3	301
65	14	3	302
65	15	3	303
65	16	3	304
66	1	3	305
66	2	3	306
66	3	3	307
66	4	3	308
66	5	3	309
66	6	3	310
66	7	3	311
66	8	3	312
66	9	3	313
66	10	3	314
66	11	3	315
66	12	3	316
66	13	3	317
66	14	3	318
66	15	3	319
66	16	3	320
67	1	3	321
67	2	3	322
67	3	3	323
67	4	3	324
67	5	3	325
67	6	3	326
67	7	3	327
67	8	3	328
67	9	3	329
67	10	3	330
67	11	3	331
67	12	3	332
67	13	3	333
67	14	3	334
67	15	3	335
67	16	3	336

Matrix Position		Daughter Board	Relay No.
X	Y		
68	1	3	337
68	2	3	338
68	3	3	339
68	4	3	340
68	5	3	341
68	6	3	342
68	7	3	343
68	8	3	344
68	9	3	345
68	10	3	346
68	11	3	347
68	12	3	348
68	13	3	349
68	14	3	350
68	15	3	351
68	16	3	352
69	1	3	353
69	2	3	354
69	3	3	355
69	4	3	356
69	5	3	357
69	6	3	358
69	7	3	359
69	8	3	360
69	9	3	361
69	10	3	362
69	11	3	363
69	12	3	364
69	13	3	365
69	14	3	366
69	15	3	367
69	16	3	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
70	1	4	1
70	2	4	2
70	3	4	3
70	4	4	4
70	5	4	5
70	6	4	6
70	7	4	7
70	8	4	8
70	9	4	9
70	10	4	10
70	11	4	11
70	12	4	12
70	13	4	13
70	14	4	14
70	15	4	15
70	16	4	16
71	1	4	17
71	2	4	18
71	3	4	19
71	4	4	20
71	5	4	21
71	6	4	22
71	7	4	23
71	8	4	24
71	9	4	25
71	10	4	26
71	11	4	27
71	12	4	28
71	13	4	29
71	14	4	30
71	15	4	31
71	16	4	32
72	1	4	33
72	2	4	34
72	3	4	35
72	4	4	36
72	5	4	37
72	6	4	38
72	7	4	39
72	8	4	40
72	9	4	41
72	10	4	42
72	11	4	43
72	12	4	44
72	13	4	45
72	14	4	46
72	15	4	47
72	16	4	48
73	1	4	49
73	2	4	50
73	3	4	51
73	4	4	52
73	5	4	53
73	6	4	54
73	7	4	55
73	8	4	56
73	9	4	57
73	10	4	58
73	11	4	59
73	12	4	60
73	13	4	61
73	14	4	62
73	15	4	63
73	16	4	64
74	1	4	65
74	2	4	66
74	3	4	67
74	4	4	68
74	5	4	69
74	6	4	70
74	7	4	71
74	8	4	72
74	9	4	73
74	10	4	74
74	11	4	75
74	12	4	76
74	13	4	77
74	14	4	78
74	15	4	79
74	16	4	80
75	1	4	81
75	2	4	82
75	3	4	83
75	4	4	84
75	5	4	85
75	6	4	86
75	7	4	87
75	8	4	88
75	9	4	89
75	10	4	90
75	11	4	91
75	12	4	92
75	13	4	93
75	14	4	94
75	15	4	95
75	16	4	96
76	1	4	97
76	2	4	98
76	3	4	99
76	4	4	100
76	5	4	101
76	6	4	102
76	7	4	103
76	8	4	104
76	9	4	105
76	10	4	106
76	11	4	107
76	12	4	108
76	13	4	109
76	14	4	110
76	15	4	111
76	16	4	112
77	1	4	113
77	2	4	114
77	3	4	115
77	4	4	116
77	5	4	117
77	6	4	118
77	7	4	119
77	8	4	120
77	9	4	121
77	10	4	122
77	11	4	123
77	12	4	124
77	13	4	125
77	14	4	126
77	15	4	127
77	16	4	128
78	1	4	129
78	2	4	130
78	3	4	131
78	4	4	132
78	5	4	133
78	6	4	134
78	7	4	135
78	8	4	136
78	9	4	137
78	10	4	137
78	11	4	139
78	12	4	140
78	13	4	141
78	14	4	142
78	15	4	143
78	16	4	144
79	1	4	145
79	2	4	146
79	3	4	147
79	4	4	148
79	5	4	149
79	6	4	150
79	7	4	151
79	8	4	152
79	9	4	153
79	10	4	154
79	11	4	155
79	12	4	156
79	13	4	157
79	14	4	158
79	15	4	159
79	16	4	160
80	1	4	161
80	2	4	162
80	3	4	163
80	4	4	164
80	5	4	165
80	6	4	166
80	7	4	167
80	8	4	168
80	9	4	169
80	10	4	170
80	11	4	171
80	12	4	172
80	13	4	173
80	14	4	174
80	15	4	175
80	16	4	176
81	1	4	177
81	2	4	178
81	3	4	179
81	4	4	180
81	5	4	181
81	6	4	182
81	7	4	183
81	8	4	184
81	9	4	185
81	10	4	186
81	11	4	187
81	12	4	188
81	13	4	189
81	14	4	190
81	15	4	191
81	16	4	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
82	1	4	193
82	2	4	194
82	3	4	195
82	4	4	196
82	5	4	197
82	6	4	198
82	7	4	199
82	8	4	200
82	9	4	201
82	10	4	202
82	11	4	203
82	12	4	204
82	13	4	205
82	14	4	206
82	15	4	207
82	16	4	208
83	1	4	209
83	2	4	210
83	3	4	211
83	4	4	212
83	5	4	213
83	6	4	214
83	7	4	215
83	8	4	216
83	9	4	217
83	10	4	218
83	11	4	219
83	12	4	220
83	13	4	221
83	14	4	222
83	15	4	223
83	16	4	224
84	1	4	225
84	2	4	226
84	3	4	227
84	4	4	228
84	5	4	229
84	6	4	230
84	7	4	231
84	8	4	232
84	9	4	233
84	10	4	234
84	11	4	235
84	12	4	236
84	13	4	237
84	14	4	238
84	15	4	239
84	16	4	240

Matrix Position		Daughter Board	Relay No.
X	Y		
85	1	4	241
85	2	4	242
85	3	4	243
85	4	4	244
85	5	4	245
85	6	4	246
85	7	4	247
85	8	4	248
85	9	4	249
85	10	4	250
85	11	4	251
85	12	4	252
85	13	4	253
85	14	4	254
85	15	4	255
85	16	4	256
86	1	4	257
86	2	4	258
86	3	4	259
86	4	4	260
86	5	4	261
86	6	4	262
86	7	4	263
86	8	4	264
86	9	4	265
86	10	4	266
86	11	4	267
86	12	4	268
86	13	4	269
86	14	4	270
86	15	4	271
86	16	4	272
87	1	4	273
87	2	4	274
87	3	4	275
87	4	4	276
87	5	4	277
87	6	4	278
87	7	4	279
87	8	4	280
87	9	4	281
87	10	4	282
87	11	4	283
87	12	4	284
87	13	4	285
87	14	4	286
87	15	4	287
87	16	4	288

Matrix Position		Daughter Board	Relay No.
X	Y		
88	1	4	289
88	2	4	290
88	3	4	291
88	4	4	292
88	5	4	293
88	6	4	294
88	7	4	295
88	8	4	296
88	9	4	297
88	10	4	298
88	11	4	299
88	12	4	300
88	13	4	301
88	14	4	302
88	15	4	303
88	16	4	304
89	1	4	305
89	2	4	306
89	3	4	307
89	4	4	308
89	5	4	309
89	6	4	310
89	7	4	311
89	8	4	312
89	9	4	313
89	10	4	314
89	11	4	315
89	12	4	316
89	13	4	317
89	14	4	318
89	15	4	319
89	16	4	320
90	1	4	321
90	2	4	322
90	3	4	323
90	4	4	324
90	5	4	325
90	6	4	326
90	7	4	327
90	8	4	328
90	9	4	329
90	10	4	330
90	11	4	331
90	12	4	332
90	13	4	333
90	14	4	334
90	15	4	335
90	16	4	336

Matrix Position		Daughter Board	Relay No.
X	Y		
91	1	4	337
91	2	4	338
91	3	4	339
91	4	4	340
91	5	4	341
91	6	4	342
91	7	4	343
91	8	4	344
91	9	4	345
91	10	4	346
91	11	4	347
91	12	4	348
91	13	4	349
91	14	4	350
91	15	4	351
91	16	4	352
92	1	4	353
92	2	4	354
92	3	4	355
92	4	4	356
92	5	4	357
92	6	4	358
92	7	4	359
92	8	4	360
92	9	4	361
92	10	4	362
92	11	4	363
92	12	4	364
92	13	4	365
92	14	4	366
92	15	4	367
92	16	4	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
93	1	5	1
93	2	5	2
93	3	5	3
93	4	5	4
93	5	5	5
93	6	5	6
93	7	5	7
93	8	5	8
93	9	5	9
93	10	5	10
93	11	5	11
93	12	5	12
93	13	5	13
93	14	5	14
93	15	5	15
93	16	5	16
94	1	5	17
94	2	5	18
94	3	5	19
94	4	5	20
94	5	5	21
94	6	5	22
94	7	5	23
94	8	5	24
94	9	5	25
94	10	5	26
94	11	5	27
94	12	5	28
94	13	5	29
94	14	5	30
94	15	5	31
94	16	5	32
95	1	5	33
95	2	5	34
95	3	5	35
95	4	5	36
95	5	5	37
95	6	5	38
95	7	5	39
95	8	5	40
95	9	5	41
95	10	5	42
95	11	5	43
95	12	5	44
95	13	5	45
95	14	5	46
95	15	5	47
95	16	5	48

Matrix Position		Daughter Board	Relay No.
X	Y		
96	1	5	49
96	2	5	50
96	3	5	51
96	4	5	52
96	5	5	53
96	6	5	54
96	7	5	55
96	8	5	56
96	9	5	57
96	10	5	58
96	11	5	59
96	12	5	60
96	13	5	61
96	14	5	62
96	15	5	63
96	16	5	64
97	1	5	65
97	2	5	66
97	3	5	67
97	4	5	68
97	5	5	69
97	6	5	70
97	7	5	71
97	8	5	72
97	9	5	73
97	10	5	74
97	11	5	75
97	12	5	76
97	13	5	77
97	14	5	78
97	15	5	79
97	16	5	80
98	1	5	81
98	2	5	82
98	3	5	83
98	4	5	84
98	5	5	85
98	6	5	86
98	7	5	87
98	8	5	88
98	9	5	89
98	10	5	90
98	11	5	91
98	12	5	92
98	13	5	93
98	14	5	94
98	15	5	95
98	16	5	96

Matrix Position		Daughter Board	Relay No.
X	Y		
99	1	5	97
99	2	5	98
99	3	5	99
99	4	5	100
99	5	5	101
99	6	5	102
99	7	5	103
99	8	5	104
99	9	5	105
99	10	5	106
99	11	5	107
99	12	5	108
99	13	5	109
99	14	5	110
99	15	5	111
99	16	5	112
100	1	5	113
100	2	5	114
100	3	5	115
100	4	5	116
100	5	5	117
100	6	5	118
100	7	5	119
100	8	5	120
100	9	5	121
100	10	5	122
100	11	5	123
100	12	5	124
100	13	5	125
100	14	5	126
100	15	5	127
100	16	5	128
101	1	5	129
101	2	5	130
101	3	5	131
101	4	5	132
101	5	5	133
101	6	5	134
101	7	5	135
101	8	5	136
101	9	5	137
101	10	5	137
101	11	5	139
101	12	5	140
101	13	5	141
101	14	5	142
101	15	5	143
101	16	5	144

Matrix Position		Daughter Board	Relay No.
X	Y		
102	1	5	145
102	2	5	146
102	3	5	147
102	4	5	148
102	5	5	149
102	6	5	150
102	7	5	151
102	8	5	152
102	9	5	153
102	10	5	154
102	11	5	155
102	12	5	156
102	13	5	157
102	14	5	158
102	15	5	159
102	16	5	160
103	1	5	161
103	2	5	162
103	3	5	163
103	4	5	164
103	5	5	165
103	6	5	166
103	7	5	167
103	8	5	168
103	9	5	169
103	10	5	170
103	11	5	171
103	12	5	172
103	13	5	173
103	14	5	174
103	15	5	175
103	16	5	176
104	1	5	177
104	2	5	178
104	3	5	179
104	4	5	180
104	5	5	181
104	6	5	182
104	7	5	183
104	8	5	184
104	9	5	185
104	10	5	186
104	11	5	187
104	12	5	188
104	13	5	189
104	14	5	190
104	15	5	191
104	16	5	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
105	1	5	193
105	2	5	194
105	3	5	195
105	4	5	196
105	5	5	197
105	6	5	198
105	7	5	199
105	8	5	200
105	9	5	201
105	10	5	202
105	11	5	203
105	12	5	204
105	13	5	205
105	14	5	206
105	15	5	207
105	16	5	208
106	1	5	209
106	2	5	210
106	3	5	211
106	4	5	212
106	5	5	213
106	6	5	214
106	7	5	215
106	8	5	216
106	9	5	217
106	10	5	218
106	11	5	219
106	12	5	220
106	13	5	221
106	14	5	222
106	15	5	223
106	16	5	224
107	1	5	225
107	2	5	226
107	3	5	227
107	4	5	228
107	5	5	229
107	6	5	230
107	7	5	231
107	8	5	232
107	9	5	233
107	10	5	234
107	11	5	235
107	12	5	236
107	13	5	237
107	14	5	238
107	15	5	239
107	16	5	240

Matrix Position		Daughter Board	Relay No.
X	Y		
108	1	5	241
108	2	5	242
108	3	5	243
108	4	5	244
108	5	5	245
108	6	5	246
108	7	5	247
108	8	5	248
108	9	5	249
108	10	5	250
108	11	5	251
108	12	5	252
108	13	5	253
108	14	5	254
108	15	5	255
108	16	5	256
109	1	5	257
109	2	5	258
109	3	5	259
109	4	5	260
109	5	5	261
109	6	5	262
109	7	5	263
109	8	5	264
109	9	5	265
109	10	5	266
109	11	5	267
109	12	5	268
109	13	5	269
109	14	5	270
109	15	5	271
109	16	5	272
110	1	5	273
110	2	5	274
110	3	5	275
110	4	5	276
110	5	5	277
110	6	5	278
110	7	5	279
110	8	5	280
110	9	5	281
110	10	5	282
110	11	5	283
110	12	5	284
110	13	5	285
110	14	5	286
110	15	5	287
110	16	5	288

Matrix Position		Daughter Board	Relay No.
X	Y		
111	1	5	289
111	2	5	290
111	3	5	291
111	4	5	292
111	5	5	293
111	6	5	294
111	7	5	295
111	8	5	296
111	9	5	297
111	10	5	298
111	11	5	299
111	12	5	300
111	13	5	301
111	14	5	302
111	15	5	303
111	16	5	304
112	1	5	305
112	2	5	306
112	3	5	307
112	4	5	308
112	5	5	309
112	6	5	310
112	7	5	311
112	8	5	312
112	9	5	313
112	10	5	314
112	11	5	315
112	12	5	316
112	13	5	317
112	14	5	318
112	15	5	319
112	16	5	320
113	1	5	321
113	2	5	322
113	3	5	323
113	4	5	324
113	5	5	325
113	6	5	326
113	7	5	327
113	8	5	328
113	9	5	329
113	10	5	330
113	11	5	331
113	12	5	332
113	13	5	333
113	14	5	334
113	15	5	335
113	16	5	336

Matrix Position		Daughter Board	Relay No.
X	Y		
114	1	5	337
114	2	5	338
114	3	5	339
114	4	5	340
114	5	5	341
114	6	5	342
114	7	5	343
114	8	5	344
114	9	5	345
114	10	5	346
114	11	5	347
114	12	5	348
114	13	5	349
114	14	5	350
114	15	5	351
114	16	5	352
115	1	5	353
115	2	5	354
115	3	5	355
115	4	5	356
115	5	5	357
115	6	5	358
115	7	5	359
115	8	5	360
115	9	5	361
115	10	5	362
115	11	5	363
115	12	5	364
115	13	5	365
115	14	5	366
115	15	5	367
115	16	5	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
116	1	6	1
116	2	6	2
116	3	6	3
116	4	6	4
116	5	6	5
116	6	6	6
116	7	6	7
116	8	6	8
116	9	6	9
116	10	6	10
116	11	6	11
116	12	6	12
116	13	6	13
116	14	6	14
116	15	6	15
117	16	6	16
117	1	6	17
117	2	6	18
117	3	6	19
117	4	6	20
117	5	6	21
117	6	6	22
117	7	6	23
117	8	6	24
117	9	6	25
117	10	6	26
117	11	6	27
117	12	6	28
117	13	6	29
117	14	6	30
117	15	6	31
117	16	6	32
118	1	6	33
118	2	6	34
118	3	6	35
118	4	6	36
118	5	6	37
118	6	6	38
118	7	6	39
118	8	6	40
118	9	6	41
118	10	6	42
118	11	6	43
118	12	6	44
118	13	6	45
118	14	6	46
118	15	6	47
118	16	6	48
119	1	6	49
119	2	6	50
119	3	6	51
119	4	6	52
119	5	6	53
119	6	6	54
119	7	6	55
119	8	6	56
119	9	6	57
119	10	6	58
119	11	6	59
119	12	6	60
119	13	6	61
119	14	6	62
119	15	6	63
119	16	6	64
120	1	6	65
120	2	6	66
120	3	6	67
120	4	6	68
120	5	6	69
120	6	6	70
120	7	6	71
120	8	6	72
120	9	6	73
120	10	6	74
120	11	6	75
120	12	6	76
120	13	6	77
120	14	6	78
120	15	6	79
120	16	6	80
121	1	6	81
121	2	6	82
121	3	6	83
121	4	6	84
121	5	6	85
121	6	6	86
121	7	6	87
121	8	6	88
121	9	6	89
121	10	6	90
121	11	6	91
121	12	6	92
121	13	6	93
121	14	6	94
121	15	6	95
121	16	6	96
122	1	6	97
122	2	6	98
122	3	6	99
122	4	6	100
122	5	6	101
122	6	6	102
122	7	6	103
122	8	6	104
122	9	6	105
122	10	6	106
122	11	6	107
122	12	6	108
122	13	6	109
122	14	6	110
122	15	6	111
122	16	6	112
123	1	6	113
123	2	6	114
123	3	6	115
123	4	6	116
123	5	6	117
123	6	6	118
123	7	6	119
123	8	6	120
123	9	6	121
123	10	6	122
123	11	6	123
123	12	6	124
123	13	6	125
123	14	6	126
123	15	6	127
123	16	6	128
124	1	6	129
124	2	6	130
124	3	6	131
124	4	6	132
124	5	6	133
124	6	6	134
124	7	6	135
124	8	6	136
124	9	6	137
124	10	6	137
124	11	6	139
124	12	6	140
124	13	6	141
124	14	6	142
124	15	6	143
124	16	6	144
125	1	6	145
125	2	6	146
125	3	6	147
125	4	6	148
125	5	6	149
125	6	6	150
125	7	6	151
125	8	6	152
125	9	6	153
125	10	6	154
125	11	6	155
125	12	6	156
125	13	6	157
125	14	6	158
125	15	6	159
125	16	6	160
126	1	6	161
126	2	6	162
126	3	6	163
126	4	6	164
126	5	6	165
126	6	6	166
126	7	6	167
126	8	6	168
126	9	6	169
126	10	6	170
126	11	6	171
126	12	6	172
126	13	6	173
126	14	6	174
126	15	6	175
126	16	6	176
127	1	6	177
127	2	6	178
127	3	6	179
127	4	6	180
127	5	6	181
127	6	6	182
127	7	6	183
127	8	6	184
127	9	6	185
127	10	6	186
127	11	6	187
127	12	6	188
127	13	6	189
127	14	6	190
127	15	6	191
127	16	6	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
128	1	6	193
128	2	6	194
128	3	6	195
128	4	6	196
128	5	6	197
128	6	6	198
128	7	6	199
128	8	6	200
128	9	6	201
128	10	6	202
128	11	6	203
128	12	6	204
128	13	6	205
128	14	6	206
128	15	6	207
128	16	6	208
129	1	6	209
129	2	6	210
129	3	6	211
129	4	6	212
129	5	6	213
129	6	6	214
129	7	6	215
129	8	6	216
129	9	6	217
129	10	6	218
129	11	6	219
129	12	6	220
129	13	6	221
129	14	6	222
129	15	6	223
129	16	6	224
130	1	6	225
130	2	6	226
130	3	6	227
130	4	6	228
130	5	6	229
130	6	6	230
130	7	6	231
130	8	6	232
130	9	6	233
130	10	6	234
130	11	6	235
130	12	6	236
130	13	6	237
130	14	6	238
130	15	6	239
130	16	6	240

Matrix Position		Daughter Board	Relay No.
X	Y		
131	1	6	241
131	2	6	242
131	3	6	243
131	4	6	244
131	5	6	245
131	6	6	246
131	7	6	247
131	8	6	248
131	9	6	249
131	10	6	250
131	11	6	251
131	12	6	252
131	13	6	253
131	14	6	254
131	15	6	255
131	16	6	256
132	1	6	257
132	2	6	258
132	3	6	259
132	4	6	260
132	5	6	261
132	6	6	262
132	7	6	263
132	8	6	264
132	9	6	265
132	10	6	266
132	11	6	267
132	12	6	268
132	13	6	269
132	14	6	270
132	15	6	271
132	16	6	272
133	1	6	273
133	2	6	274
133	3	6	275
133	4	6	276
133	5	6	277
133	6	6	278
133	7	6	279
133	8	6	280
133	9	6	281
133	10	6	282
133	11	6	283
133	12	6	284
133	13	6	285
133	14	6	286
133	15	6	287
133	16	6	288

Matrix Position		Daughter Board	Relay No.
X	Y		
134	1	6	289
134	2	6	290
134	3	6	291
134	4	6	292
134	5	6	293
134	6	6	294
134	7	6	295
134	8	6	296
134	9	6	297
134	10	6	298
134	11	6	299
134	12	6	300
134	13	6	301
134	14	6	302
134	15	6	303
134	16	6	304
135	1	6	305
135	2	6	306
135	3	6	307
135	4	6	308
135	5	6	309
135	6	6	310
135	7	6	311
135	8	6	312
135	9	6	313
135	10	6	314
135	11	6	315
135	12	6	316
135	13	6	317
135	14	6	318
135	15	6	319
135	16	6	320
136	1	6	321
136	2	6	322
136	3	6	323
136	4	6	324
136	5	6	325
136	6	6	326
136	7	6	327
136	8	6	328
136	9	6	329
136	10	6	330
136	11	6	331
136	12	6	332
136	13	6	333
136	14	6	334
136	15	6	335
136	16	6	336

Matrix Position		Daughter Board	Relay No.
X	Y		
137	1	6	337
137	2	6	338
137	3	6	339
137	4	6	340
137	5	6	341
137	6	6	342
137	7	6	343
137	8	6	344
137	9	6	345
137	10	6	346
137	11	6	347
137	12	6	348
137	13	6	349
137	14	6	350
137	15	6	351
137	16	6	352
138	1	6	353
138	2	6	354
138	3	6	355
138	4	6	356
138	5	6	357
138	6	6	358
138	7	6	359
138	8	6	360
138	9	6	361
138	10	6	362
138	11	6	363
138	12	6	364
138	13	6	365
138	14	6	366
138	15	6	367
138	16	6	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
139	1	7	1
139	2	7	2
139	3	7	3
139	4	7	4
139	5	7	5
139	6	7	6
139	7	7	7
139	8	7	8
139	9	7	9
139	10	7	10
139	11	7	11
139	12	7	12
139	13	7	13
139	14	7	14
139	15	7	15
139	16	7	16
140	1	7	17
140	2	7	18
140	3	7	19
140	4	7	20
140	5	7	21
140	6	7	22
140	7	7	23
140	8	7	24
140	9	7	25
140	10	7	26
140	11	7	27
140	12	7	28
140	13	7	29
140	14	7	30
140	15	7	31
140	16	7	32
141	1	7	33
141	2	7	34
141	3	7	35
141	4	7	36
141	5	7	37
141	6	7	38
141	7	7	39
141	8	7	40
141	9	7	41
141	10	7	42
141	11	7	43
141	12	7	44
141	13	7	45
141	14	7	46
141	15	7	47
141	16	7	48
142	1	7	49
142	2	7	50
142	3	7	51
142	4	7	52
142	5	7	53
142	6	7	54
142	7	7	55
142	8	7	56
142	9	7	57
142	10	7	58
142	11	7	59
142	12	7	60
142	13	7	61
142	14	7	62
142	15	7	63
142	16	7	64
143	1	7	65
143	2	7	66
143	3	7	67
143	4	7	68
143	5	7	69
143	6	7	70
143	7	7	71
143	8	7	72
143	9	7	73
143	10	7	74
143	11	7	75
143	12	7	76
143	13	7	77
143	14	7	78
143	15	7	79
143	16	7	80
144	1	7	81
144	2	7	82
144	3	7	83
144	4	7	84
144	5	7	85
144	6	7	86
144	7	7	87
144	8	7	88
144	9	7	89
144	10	7	90
144	11	7	91
144	12	7	92
144	13	7	93
144	14	7	94
144	15	7	95
144	16	7	96
145	1	7	97
145	2	7	98
145	3	7	99
145	4	7	100
145	5	7	101
145	6	7	102
145	7	7	103
145	8	7	104
145	9	7	105
145	10	7	106
145	11	7	107
145	12	7	108
145	13	7	109
145	14	7	110
145	15	7	111
145	16	7	112
146	1	7	113
146	2	7	114
146	3	7	115
146	4	7	116
146	5	7	117
146	6	7	118
146	7	7	119
146	8	7	120
146	9	7	121
146	10	7	122
146	11	7	123
146	12	7	124
146	13	7	125
146	14	7	126
146	15	7	127
146	16	7	128
147	1	7	129
147	2	7	130
147	3	7	131
147	4	7	132
147	5	7	133
147	6	7	134
147	7	7	135
147	8	7	136
147	9	7	137
147	10	7	137
147	11	7	139
147	12	7	140
147	13	7	141
147	14	7	142
147	15	7	143
147	16	7	144
148	1	7	145
148	2	7	146
148	3	7	147
148	4	7	148
148	5	7	149
148	6	7	150
148	7	7	151
148	8	7	152
148	9	7	153
148	10	7	154
148	11	7	155
148	12	7	156
148	13	7	157
148	14	7	158
148	15	7	159
148	16	7	160
149	1	7	161
149	2	7	162
149	3	7	163
149	4	7	164
149	5	7	165
149	6	7	166
149	7	7	167
149	8	7	168
149	9	7	169
149	10	7	170
149	11	7	171
149	12	7	172
149	13	7	173
149	14	7	174
149	15	7	175
149	16	7	176
150	1	7	177
150	2	7	178
150	3	7	179
150	4	7	180
150	5	7	181
150	6	7	182
150	7	7	183
150	8	7	184
150	9	7	185
150	10	7	186
150	11	7	187
150	12	7	188
150	13	7	189
150	14	7	190
150	15	7	191
150	16	7	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
151	1	7	193
151	2	7	194
151	3	7	195
151	4	7	196
151	5	7	197
151	6	7	198
151	7	7	199
151	8	7	200
151	9	7	201
151	10	7	202
151	11	7	203
151	12	7	204
151	13	7	205
151	14	7	206
151	15	7	207
151	16	7	208
152	1	7	209
152	2	7	210
152	3	7	211
152	4	7	212
152	5	7	213
152	6	7	214
152	7	7	215
152	8	7	216
152	9	7	217
152	10	7	218
152	11	7	219
152	12	7	220
152	13	7	221
152	14	7	222
152	15	7	223
152	16	7	224
153	1	7	225
153	2	7	226
153	3	7	227
153	4	7	228
153	5	7	229
153	6	7	230
153	7	7	231
153	8	7	232
153	9	7	233
153	10	7	234
153	11	7	235
153	12	7	236
153	13	7	237
153	14	7	238
153	15	7	239
153	16	7	240

Matrix Position		Daughter Board	Relay No.
X	Y		
154	1	7	241
154	2	7	242
154	3	7	243
154	4	7	244
154	5	7	245
154	6	7	246
154	7	7	247
154	8	7	248
154	9	7	249
154	10	7	250
154	11	7	251
154	12	7	252
154	13	7	253
154	14	7	254
154	15	7	255
154	16	7	256
155	1	7	257
155	2	7	258
155	3	7	259
155	4	7	260
155	5	7	261
155	6	7	262
155	7	7	263
155	8	7	264
155	9	7	265
155	10	7	266
155	11	7	267
155	12	7	268
155	13	7	269
155	14	7	270
155	15	7	271
155	16	7	272
156	1	7	273
156	2	7	274
156	3	7	275
156	4	7	276
156	5	7	277
156	6	7	278
156	7	7	279
156	8	7	280
156	9	7	281
156	10	7	282
156	11	7	283
156	12	7	284
156	13	7	285
156	14	7	286
156	15	7	287
156	16	7	288

Matrix Position		Daughter Board	Relay No.
X	Y		
157	1	7	289
157	2	7	290
157	3	7	291
157	4	7	292
157	5	7	293
157	6	7	294
157	7	7	295
157	8	7	296
157	9	7	297
157	10	7	298
157	11	7	299
157	12	7	300
157	13	7	301
157	14	7	302
157	15	7	303
157	16	7	304
158	1	7	305
158	2	7	306
158	3	7	307
158	4	7	308
158	5	7	309
158	6	7	310
158	7	7	311
158	8	7	312
158	9	7	313
158	10	7	314
158	11	7	315
158	12	7	316
158	13	7	317
158	14	7	318
158	15	7	319
158	16	7	320
159	1	7	321
159	2	7	322
159	3	7	323
159	4	7	324
159	5	7	325
159	6	7	326
159	7	7	327
159	8	7	328
159	9	7	329
159	10	7	330
159	11	7	331
159	12	7	332
159	13	7	333
159	14	7	334
159	15	7	335
159	16	7	336

Matrix Position		Daughter Board	Relay No.
X	Y		
160	1	7	337
160	2	7	338
160	3	7	339
160	4	7	340
160	5	7	341
160	6	7	342
160	7	7	343
160	8	7	344
160	9	7	345
160	10	7	346
160	11	7	347
160	12	7	348
160	13	7	349
160	14	7	350
160	15	7	351
160	16	7	352
161	1	7	353
161	2	7	354
161	3	7	355
161	4	7	356
161	5	7	357
161	6	7	358
161	7	7	359
161	8	7	360
161	9	7	361
161	10	7	362
161	11	7	363
161	12	7	364
161	13	7	365
161	14	7	366
161	15	7	367
161	16	7	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
162	1	8	1
162	2	8	2
162	3	8	3
162	4	8	4
162	5	8	5
162	6	8	6
162	7	8	7
162	8	8	8
162	9	8	9
162	10	8	10
162	11	8	11
162	12	8	12
162	13	8	13
162	14	8	14
162	15	8	15
162	16	8	16
163	1	8	17
163	2	8	18
163	3	8	19
163	4	8	20
163	5	8	21
163	6	8	22
163	7	8	23
163	8	8	24
163	9	8	25
163	10	8	26
163	11	8	27
163	12	8	28
163	13	8	29
163	14	8	30
163	15	8	31
163	16	8	32
164	1	8	33
164	2	8	34
164	3	8	35
164	4	8	36
164	5	8	37
164	6	8	38
164	7	8	39
164	8	8	40
164	9	8	41
164	10	8	42
164	11	8	43
164	12	8	44
164	13	8	45
164	14	8	46
164	15	8	47
164	16	8	48

Matrix Position		Daughter Board	Relay No.
X	Y		
165	1	8	49
165	2	8	50
165	3	8	51
165	4	8	52
165	5	8	53
165	6	8	54
165	7	8	55
165	8	8	56
165	9	8	57
165	10	8	58
165	11	8	59
165	12	8	60
165	13	8	61
165	14	8	62
165	15	8	63
165	16	8	64
166	1	8	65
166	2	8	66
166	3	8	67
166	4	8	68
166	5	8	69
166	6	8	70
166	7	8	71
166	8	8	72
166	9	8	73
166	10	8	74
166	11	8	75
166	12	8	76
166	13	8	77
166	14	8	78
166	15	8	79
166	16	8	80
167	1	8	81
167	2	8	82
167	3	8	83
167	4	8	84
167	5	8	85
167	6	8	86
167	7	8	87
167	8	8	88
167	9	8	89
167	10	8	90
167	11	8	91
167	12	8	92
167	13	8	93
167	14	8	94
167	15	8	95
167	16	8	96

Matrix Position		Daughter Board	Relay No.
X	Y		
168	1	8	97
168	2	8	98
168	3	8	99
168	4	8	100
168	5	8	101
168	6	8	102
168	7	8	103
168	8	8	104
168	9	8	105
168	10	8	106
168	11	8	107
168	12	8	108
168	13	8	109
168	14	8	110
168	15	8	111
168	16	8	112
169	1	8	113
169	2	8	114
169	3	8	115
169	4	8	116
169	5	8	117
169	6	8	118
169	7	8	119
169	8	8	120
169	9	8	121
169	10	8	122
169	11	8	123
169	12	8	124
169	13	8	125
169	14	8	126
169	15	8	127
169	16	8	128
170	1	8	129
170	2	8	130
170	3	8	131
170	4	8	132
170	5	8	133
170	6	8	134
170	7	8	135
170	8	8	136
170	9	8	137
170	10	8	137
170	11	8	139
170	12	8	140
170	13	8	141
170	14	8	142
170	15	8	143
170	16	8	144

Matrix Position		Daughter Board	Relay No.
X	Y		
171	1	8	145
171	2	8	146
171	3	8	147
171	4	8	148
171	5	8	149
171	6	8	150
171	7	8	151
171	8	8	152
171	9	8	153
171	10	8	154
171	11	8	155
171	12	8	156
171	13	8	157
171	14	8	158
171	15	8	159
171	16	8	160
172	1	8	161
172	2	8	162
172	3	8	163
172	4	8	164
172	5	8	165
172	6	8	166
172	7	8	167
172	8	8	168
172	9	8	169
172	10	8	170
172	11	8	171
172	12	8	172
172	13	8	173
172	14	8	174
172	15	8	175
172	16	8	176
173	1	8	177
173	2	8	178
173	3	8	179
173	4	8	180
173	5	8	181
173	6	8	182
173	7	8	183
173	8	8	184
173	9	8	185
173	10	8	186
173	11	8	187
173	12	8	188
173	13	8	189
173	14	8	190
173	15	8	191
173	16	8	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
174	1	8	193
174	2	8	194
174	3	8	195
174	4	8	196
174	5	8	197
174	6	8	198
174	7	8	199
174	8	8	200
174	9	8	201
174	10	8	202
174	11	8	203
174	12	8	204
174	13	8	205
174	14	8	206
174	15	8	207
174	16	8	208
175	1	8	209
175	2	8	210
175	3	8	211
175	4	8	212
175	5	8	213
175	6	8	214
175	7	8	215
175	8	8	216
175	9	8	217
175	10	8	218
175	11	8	219
175	12	8	220
175	13	8	221
175	14	8	222
175	15	8	223
175	16	8	224
176	1	8	225
176	2	8	226
176	3	8	227
176	4	8	228
176	5	8	229
176	6	8	230
176	7	8	231
176	8	8	232
176	9	8	233
176	10	8	234
176	11	8	235
176	12	8	236
176	13	8	237
176	14	8	238
176	15	8	239
176	16	8	240

Matrix Position		Daughter Board	Relay No.
X	Y		
177	1	8	241
177	2	8	242
177	3	8	243
177	4	8	244
177	5	8	245
177	6	8	246
177	7	8	247
177	8	8	248
177	9	8	249
177	10	8	250
177	11	8	251
177	12	8	252
177	13	8	253
177	14	8	254
177	15	8	255
177	16	8	256
178	1	8	257
178	2	8	258
178	3	8	259
178	4	8	260
178	5	8	261
178	6	8	262
178	7	8	263
178	8	8	264
178	9	8	265
178	10	8	266
178	11	8	267
178	12	8	268
178	13	8	269
178	14	8	270
178	15	8	271
178	16	8	272
179	1	8	273
179	2	8	274
179	3	8	275
179	4	8	276
179	5	8	277
179	6	8	278
179	7	8	279
179	8	8	280
179	9	8	281
179	10	8	282
179	11	8	283
179	12	8	284
179	13	8	285
179	14	8	286
179	15	8	287
179	16	8	288

Matrix Position		Daughter Board	Relay No.
X	Y		
180	1	8	289
180	2	8	290
180	3	8	291
180	4	8	292
180	5	8	293
180	6	8	294
180	7	8	295
180	8	8	296
180	9	8	297
180	10	8	298
180	11	8	299
180	12	8	300
180	13	8	301
180	14	8	302
180	15	8	303
180	16	8	304
181	1	8	305
181	2	8	306
181	3	8	307
181	4	8	308
181	5	8	309
181	6	8	310
181	7	8	311
181	8	8	312
181	9	8	313
181	10	8	314
181	11	8	315
181	12	8	316
181	13	8	317
181	14	8	318
181	15	8	319
181	16	8	320
182	1	8	321
182	2	8	322
182	3	8	323
182	4	8	324
182	5	8	325
182	6	8	326
182	7	8	327
182	8	8	328
182	9	8	329
182	10	8	330
182	11	8	331
182	12	8	332
182	13	8	333
182	14	8	334
182	15	8	335
182	16	8	336

Matrix Position		Daughter Board	Relay No.
X	Y		
183	1	8	337
183	2	8	338
183	3	8	339
183	4	8	340
183	5	8	341
183	6	8	342
183	7	8	343
183	8	8	344
183	9	8	345
183	10	8	346
183	11	8	347
183	12	8	348
183	13	8	349
183	14	8	350
183	15	8	351
183	16	8	352
184	1	8	353
184	2	8	354
184	3	8	355
184	4	8	356
184	5	8	357
184	6	8	358
184	7	8	359
184	8	8	360
184	9	8	361
184	10	8	362
184	11	8	363
184	12	8	364
184	13	8	365
184	14	8	366
184	15	8	367
184	16	8	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
185	1	9	1
185	2	9	2
185	3	9	3
185	4	9	4
185	5	9	5
185	6	9	6
185	7	9	7
185	8	9	8
185	9	9	9
185	10	9	10
185	11	9	11
185	12	9	12
185	13	9	13
185	14	9	14
185	15	9	15
185	16	9	16
186	1	9	17
186	2	9	18
186	3	9	19
186	4	9	20
186	5	9	21
186	6	9	22
186	7	9	23
186	8	9	24
186	9	9	25
186	10	9	26
186	11	9	27
186	12	9	28
186	13	9	29
186	14	9	30
186	15	9	31
186	16	9	32
187	1	9	33
187	2	9	34
187	3	9	35
187	4	9	36
187	5	9	37
187	6	9	38
187	7	9	39
187	8	9	40
187	9	9	41
187	10	9	42
187	11	9	43
187	12	9	44
187	13	9	45
187	14	9	46
187	15	9	47
187	16	9	48

Matrix Position		Daughter Board	Relay No.
X	Y		
188	1	9	49
188	2	9	50
188	3	9	51
188	4	9	52
188	5	9	53
188	6	9	54
188	7	9	55
188	8	9	56
188	9	9	57
188	10	9	58
188	11	9	59
188	12	9	60
188	13	9	61
188	14	9	62
188	15	9	63
188	16	9	64
189	1	9	65
189	2	9	66
189	3	9	67
189	4	9	68
189	5	9	69
189	6	9	70
189	7	9	71
189	8	9	72
189	9	9	73
189	10	9	74
189	11	9	75
189	12	9	76
189	13	9	77
189	14	9	78
189	15	9	79
189	16	9	80
190	1	9	81
190	2	9	82
190	3	9	83
190	4	9	84
190	5	9	85
190	6	9	86
190	7	9	87
190	8	9	88
190	9	9	89
190	10	9	90
190	11	9	91
190	12	9	92
190	13	9	93
190	14	9	94
190	15	9	95
190	16	9	96

Matrix Position		Daughter Board	Relay No.
X	Y		
191	1	9	97
191	2	9	98
191	3	9	99
191	4	9	100
191	5	9	101
191	6	9	102
191	7	9	103
191	8	9	104
191	9	9	105
191	10	9	106
191	11	9	107
191	12	9	108
191	13	9	109
191	14	9	110
191	15	9	111
191	16	9	112
192	1	9	113
192	2	9	114
192	3	9	115
192	4	9	116
192	5	9	117
192	6	9	118
192	7	9	119
192	8	9	120
192	9	9	121
192	10	9	122
192	11	9	123
192	12	9	124
192	13	9	125
192	14	9	126
192	15	9	127
192	16	9	128
193	1	9	129
193	2	9	130
193	3	9	131
193	4	9	132
193	5	9	133
193	6	9	134
193	7	9	135
193	8	9	136
193	9	9	137
193	10	9	137
193	11	9	139
193	12	9	140
193	13	9	141
193	14	9	142
193	15	9	143
193	16	9	144

Matrix Position		Daughter Board	Relay No.
X	Y		
194	1	9	145
194	2	9	146
194	3	9	147
194	4	9	148
194	5	9	149
194	6	9	150
194	7	9	151
194	8	9	152
194	9	9	153
194	10	9	154
194	11	9	155
194	12	9	156
194	13	9	157
194	14	9	158
194	15	9	159
194	16	9	160
195	1	9	161
195	2	9	162
195	3	9	163
195	4	9	164
195	5	9	165
195	6	9	166
195	7	9	167
195	8	9	168
195	9	9	169
195	10	9	170
195	11	9	171
195	12	9	172
195	13	9	173
195	14	9	174
195	15	9	175
195	16	9	176
196	1	9	177
196	2	9	178
196	3	9	179
196	4	9	180
196	5	9	181
196	6	9	182
196	7	9	183
196	8	9	184
196	9	9	185
196	10	9	186
196	11	9	187
196	12	9	188
196	13	9	189
196	14	9	190
196	15	9	191
196	16	9	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
197	1	9	193
197	2	9	194
197	3	9	195
197	4	9	196
197	5	9	197
197	6	9	198
197	7	9	199
197	8	9	200
197	9	9	201
197	10	9	202
197	11	9	203
197	12	9	204
197	13	9	205
197	14	9	206
197	15	9	207
197	16	9	208
198	1	9	209
198	2	9	210
198	3	9	211
198	4	9	212
198	5	9	213
198	6	9	214
198	7	9	215
198	8	9	216
198	9	9	217
198	10	9	218
198	11	9	219
198	12	9	220
198	13	9	221
198	14	9	222
198	15	9	223
198	16	9	224
199	1	9	225
199	2	9	226
199	3	9	227
199	4	9	228
199	5	9	229
199	6	9	230
199	7	9	231
199	8	9	232
199	9	9	233
199	10	9	234
199	11	9	235
199	12	9	236
199	13	9	237
199	14	9	238
199	15	9	239
199	16	9	240

Matrix Position		Daughter Board	Relay No.
X	Y		
200	1	9	241
200	2	9	242
200	3	9	243
200	4	9	244
200	5	9	245
200	6	9	246
200	7	9	247
200	8	9	248
200	9	9	249
200	10	9	250
200	11	9	251
200	12	9	252
200	13	9	253
200	14	9	254
200	15	9	255
200	16	9	256
201	1	9	257
201	2	9	258
201	3	9	259
201	4	9	260
201	5	9	261
201	6	9	262
201	7	9	263
201	8	9	264
201	9	9	265
201	10	9	266
201	11	9	267
201	12	9	268
201	13	9	269
201	14	9	270
201	15	9	271
201	16	9	272
202	1	9	273
202	2	9	274
202	3	9	275
202	4	9	276
202	5	9	277
202	6	9	278
202	7	9	279
202	8	9	280
202	9	9	281
202	10	9	282
202	11	9	283
202	12	9	284
202	13	9	285
202	14	9	286
202	15	9	287
202	16	9	288

Matrix Position		Daughter Board	Relay No.
X	Y		
203	1	9	289
203	2	9	290
203	3	9	291
203	4	9	292
203	5	9	293
203	6	9	294
203	7	9	295
203	8	9	296
203	9	9	297
203	10	9	298
203	11	9	299
203	12	9	300
203	13	9	301
203	14	9	302
203	15	9	303
203	16	9	304
204	1	9	305
204	2	9	306
204	3	9	307
204	4	9	308
204	5	9	309
204	6	9	310
204	7	9	311
204	8	9	312
204	9	9	313
204	10	9	314
204	11	9	315
204	12	9	316
204	13	9	317
204	14	9	318
204	15	9	319
204	16	9	320
205	1	9	321
205	2	9	322
205	3	9	323
205	4	9	324
205	5	9	325
205	6	9	326
205	7	9	327
205	8	9	328
205	9	9	329
205	10	9	330
205	11	9	331
205	12	9	332
205	13	9	333
205	14	9	334
205	15	9	335
205	16	9	336

Matrix Position		Daughter Board	Relay No.
X	Y		
206	1	9	337
206	2	9	338
206	3	9	339
206	4	9	340
206	5	9	341
206	6	9	342
206	7	9	343
206	8	9	344
206	9	9	345
206	10	9	346
206	11	9	347
206	12	9	348
206	13	9	349
206	14	9	350
206	15	9	351
206	16	9	352
207	1	9	353
207	2	9	354
207	3	9	355
207	4	9	356
207	5	9	357
207	6	9	358
207	7	9	359
207	8	9	360
207	9	9	361
207	10	9	362
207	11	9	363
207	12	9	364
207	13	9	365
207	14	9	366
207	15	9	367
207	16	9	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
208	1	10	1
208	2	10	2
208	3	10	3
208	4	10	4
208	5	10	5
208	6	10	6
208	7	10	7
208	8	10	8
208	9	10	9
208	10	10	10
208	11	10	11
208	12	10	12
208	13	10	13
208	14	10	14
208	15	10	15
208	16	10	16
209	1	10	17
209	2	10	18
209	3	10	19
209	4	10	20
209	5	10	21
209	6	10	22
209	7	10	23
209	8	10	24
209	9	10	25
209	10	10	26
209	11	10	27
209	12	10	28
209	13	10	29
209	14	10	30
209	15	10	31
209	16	10	32
210	1	10	33
210	2	10	34
210	3	10	35
210	4	10	36
210	5	10	37
210	6	10	38
210	7	10	39
210	8	10	40
210	9	10	41
210	10	10	42
210	11	10	43
210	12	10	44
210	13	10	45
210	14	10	46
210	15	10	47
210	16	10	48

Matrix Position		Daughter Board	Relay No.
X	Y		
211	1	10	49
211	2	10	50
211	3	10	51
211	4	10	52
211	5	10	53
211	6	10	54
211	7	10	55
211	8	10	56
211	9	10	57
211	10	10	58
211	11	10	59
211	12	10	60
211	13	10	61
211	14	10	62
211	15	10	63
211	16	10	64
212	1	10	65
212	2	10	66
212	3	10	67
212	4	10	68
212	5	10	69
212	6	10	70
212	7	10	71
212	8	10	72
212	9	10	73
212	10	10	74
212	11	10	75
212	12	10	76
212	13	10	77
212	14	10	78
212	15	10	79
212	16	10	80
213	1	10	81
213	2	10	82
213	3	10	83
213	4	10	84
213	5	10	85
213	6	10	86
213	7	10	87
213	8	10	88
213	9	10	89
213	10	10	90
213	11	10	91
213	12	10	92
213	13	10	93
213	14	10	94
213	15	10	95
213	16	10	96

Matrix Position		Daughter Board	Relay No.
X	Y		
214	1	10	97
214	2	10	98
214	3	10	99
214	4	10	100
214	5	10	101
214	6	10	102
214	7	10	103
214	8	10	104
214	9	10	105
214	10	10	106
214	11	10	107
214	12	10	108
214	13	10	109
214	14	10	110
214	15	10	111
214	16	10	112
215	1	10	113
215	2	10	114
215	3	10	115
215	4	10	116
215	5	10	117
215	6	10	118
215	7	10	119
215	8	10	120
215	9	10	121
215	10	10	122
215	11	10	123
215	12	10	124
215	13	10	125
215	14	10	126
215	15	10	127
215	16	10	128
216	1	10	129
216	2	10	130
216	3	10	131
216	4	10	132
216	5	10	133
216	6	10	134
216	7	10	135
216	8	10	136
216	9	10	137
216	10	10	137
216	11	10	139
216	12	10	140
216	13	10	141
216	14	10	142
216	15	10	143
216	16	10	144

Matrix Position		Daughter Board	Relay No.
X	Y		
217	1	10	145
217	2	10	146
217	3	10	147
217	4	10	148
217	5	10	149
217	6	10	150
217	7	10	151
217	8	10	152
217	9	10	153
217	10	10	154
217	11	10	155
217	12	10	156
217	13	10	157
217	14	10	158
217	15	10	159
217	16	10	160
218	1	10	161
218	2	10	162
218	3	10	163
218	4	10	164
218	5	10	165
218	6	10	166
218	7	10	167
218	8	10	168
218	9	10	169
218	10	10	170
218	11	10	171
218	12	10	172
218	13	10	173
218	14	10	174
218	15	10	175
218	16	10	176
219	1	10	177
219	2	10	178
219	3	10	179
219	4	10	180
219	5	10	181
219	6	10	182
219	7	10	183
219	8	10	184
219	9	10	185
219	10	10	186
219	11	10	187
219	12	10	188
219	13	10	189
219	14	10	190
219	15	10	191
219	16	10	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
220	1	10	193
220	2	10	194
220	3	10	195
220	4	10	196
220	5	10	197
220	6	10	198
220	7	10	199
220	8	10	200
220	9	10	201
220	10	10	202
220	11	10	203
220	12	10	204
220	13	10	205
220	14	10	206
220	15	10	207
220	16	10	208
221	1	10	209
221	2	10	210
221	3	10	211
221	4	10	212
221	5	10	213
221	6	10	214
221	7	10	215
221	8	10	216
221	9	10	217
221	10	10	218
221	11	10	219
221	12	10	220
221	13	10	221
221	14	10	222
221	15	10	223
221	16	10	224
222	1	10	225
222	2	10	226
222	3	10	227
222	4	10	228
222	5	10	229
222	6	10	230
222	7	10	231
222	8	10	232
222	9	10	233
222	10	10	234
222	11	10	235
222	12	10	236
222	13	10	237
222	14	10	238
222	15	10	239
222	16	10	240

Matrix Position		Daughter Board	Relay No.
X	Y		
223	1	10	241
223	2	10	242
223	3	10	243
223	4	10	244
223	5	10	245
223	6	10	246
223	7	10	247
223	8	10	248
223	9	10	249
223	10	10	250
223	11	10	251
223	12	10	252
223	13	10	253
223	14	10	254
223	15	10	255
223	16	10	256
224	1	10	257
224	2	10	258
224	3	10	259
224	4	10	260
224	5	10	261
224	6	10	262
224	7	10	263
224	8	10	264
224	9	10	265
224	10	10	266
224	11	10	267
224	12	10	268
224	13	10	269
224	14	10	270
224	15	10	271
224	16	10	272
225	1	10	273
225	2	10	274
225	3	10	275
225	4	10	276
225	5	10	277
225	6	10	278
225	7	10	279
225	8	10	280
225	9	10	281
225	10	10	282
225	11	10	283
225	12	10	284
225	13	10	285
225	14	10	286
225	15	10	287
225	16	10	288

Matrix Position		Daughter Board	Relay No.
X	Y		
226	1	10	289
226	2	10	290
226	3	10	291
226	4	10	292
226	5	10	293
226	6	10	294
226	7	10	295
226	8	10	296
226	9	10	297
226	10	10	298
226	11	10	299
226	12	10	300
226	13	10	301
226	14	10	302
226	15	10	303
226	16	10	304
227	1	10	305
227	2	10	306
227	3	10	307
227	4	10	308
227	5	10	309
227	6	10	310
227	7	10	311
227	8	10	312
227	9	10	313
227	10	10	314
227	11	10	315
227	12	10	316
227	13	10	317
227	14	10	318
227	15	10	319
227	16	10	320
228	1	10	321
228	2	10	322
228	3	10	323
228	4	10	324
228	5	10	325
228	6	10	326
228	7	10	327
228	8	10	328
228	9	10	329
228	10	10	330
228	11	10	331
228	12	10	332
228	13	10	333
228	14	10	334
228	15	10	335
228	16	10	336

Matrix Position		Daughter Board	Relay No.
X	Y		
229	1	10	337
229	2	10	338
229	3	10	339
229	4	10	340
229	5	10	341
229	6	10	342
229	7	10	343
229	8	10	344
229	9	10	345
229	10	10	346
229	11	10	347
229	12	10	348
229	13	10	349
229	14	10	350
229	15	10	351
229	16	10	352
230	1	10	353
230	2	10	354
230	3	10	355
230	4	10	356
230	5	10	357
230	6	10	358
230	7	10	359
230	8	10	360
230	9	10	361
230	10	10	362
230	11	10	363
230	12	10	364
230	13	10	365
230	14	10	366
230	15	10	367
230	16	10	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
231	1	11	1
231	2	11	2
231	3	11	3
231	4	11	4
231	5	11	5
231	6	11	6
231	7	11	7
231	8	11	8
231	9	11	9
231	10	11	10
231	11	11	11
231	12	11	12
231	13	11	13
231	14	11	14
231	15	11	15
231	16	11	16
232	1	11	17
232	2	11	18
232	3	11	19
232	4	11	20
232	5	11	21
232	6	11	22
232	7	11	23
232	8	11	24
232	9	11	25
232	10	11	26
232	11	11	27
232	12	11	28
232	13	11	29
232	14	11	30
232	15	11	31
232	16	11	32
233	1	11	33
233	2	11	34
233	3	11	35
233	4	11	36
233	5	11	37
233	6	11	38
233	7	11	39
233	8	11	40
233	9	11	41
233	10	11	42
233	11	11	43
233	12	11	44
233	13	11	45
233	14	11	46
233	15	11	47
233	16	11	48
234	1	11	49
234	2	11	50
234	3	11	51
234	4	11	52
234	5	11	53
234	6	11	54
234	7	11	55
234	8	11	56
234	9	11	57
234	10	11	58
234	11	11	59
234	12	11	60
234	13	11	61
234	14	11	62
234	15	11	63
234	16	11	64
235	1	11	65
235	2	11	66
235	3	11	67
235	4	11	68
235	5	11	69
235	6	11	70
235	7	11	71
235	8	11	72
235	9	11	73
235	10	11	74
235	11	11	75
235	12	11	76
235	13	11	77
235	14	11	78
235	15	11	79
235	16	11	80
236	1	11	81
236	2	11	82
236	3	11	83
236	4	11	84
236	5	11	85
236	6	11	86
236	7	11	87
236	8	11	88
236	9	11	89
236	10	11	90
236	11	11	91
236	12	11	92
236	13	11	93
236	14	11	94
236	15	11	95
236	16	11	96
237	1	11	97
237	2	11	98
237	3	11	99
237	4	11	100
237	5	11	101
237	6	11	102
237	7	11	103
237	8	11	104
237	9	11	105
237	10	11	106
237	11	11	107
237	12	11	108
237	13	11	109
237	14	11	110
237	15	11	111
237	16	11	112
238	1	11	113
238	2	11	114
238	3	11	115
238	4	11	116
238	5	11	117
238	6	11	118
238	7	11	119
238	8	11	120
238	9	11	121
238	10	11	122
238	11	11	123
238	12	11	124
238	13	11	125
238	14	11	126
238	15	11	127
238	16	11	128
239	1	11	129
239	2	11	130
239	3	11	131
239	4	11	132
239	5	11	133
239	6	11	134
239	7	11	135
239	8	11	136
239	9	11	137
239	10	11	137
239	11	11	139
239	12	11	140
239	13	11	141
239	14	11	142
239	15	11	143
239	16	11	144
240	1	11	145
240	2	11	146
240	3	11	147
240	4	11	148
240	5	11	149
240	6	11	150
240	7	11	151
240	8	11	152
240	9	11	153
240	10	11	154
240	11	11	155
240	12	11	156
240	13	11	157
240	14	11	158
240	15	11	159
240	16	11	160
241	1	11	161
241	2	11	162
241	3	11	163
241	4	11	164
241	5	11	165
241	6	11	166
241	7	11	167
241	8	11	168
241	9	11	169
241	10	11	170
241	11	11	171
241	12	11	172
241	13	11	173
241	14	11	174
241	15	11	175
241	16	11	176
242	1	11	177
242	2	11	178
242	3	11	179
242	4	11	180
242	5	11	181
242	6	11	182
242	7	11	183
242	8	11	184
242	9	11	185
242	10	11	186
242	11	11	187
242	12	11	188
242	13	11	189
242	14	11	190
242	15	11	191
242	16	11	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
243	1	11	193
243	2	11	194
243	3	11	195
243	4	11	196
243	5	11	197
243	6	11	198
243	7	11	199
243	8	11	200
243	9	11	201
243	10	11	202
243	11	11	203
243	12	11	204
243	13	11	205
243	14	11	206
243	15	11	207
243	16	11	208
244	1	11	209
244	2	11	210
244	3	11	211
244	4	11	212
244	5	11	213
244	6	11	214
244	7	11	215
244	8	11	216
244	9	11	217
244	10	11	218
244	11	11	219
244	12	11	220
244	13	11	221
244	14	11	222
244	15	11	223
244	16	11	224
245	1	11	225
245	2	11	226
245	3	11	227
245	4	11	228
245	5	11	229
245	6	11	230
245	7	11	231
245	8	11	232
245	9	11	233
245	10	11	234
245	11	11	235
245	12	11	236
245	13	11	237
245	14	11	238
245	15	11	239
245	16	11	240

Matrix Position		Daughter Board	Relay No.
X	Y		
246	1	11	241
246	2	11	242
246	3	11	243
246	4	11	244
246	5	11	245
246	6	11	246
246	7	11	247
246	8	11	248
246	9	11	249
246	10	11	250
246	11	11	251
246	12	11	252
246	13	11	253
246	14	11	254
246	15	11	255
246	16	11	256
247	1	11	257
247	2	11	258
247	3	11	259
247	4	11	260
247	5	11	261
247	6	11	262
247	7	11	263
247	8	11	264
247	9	11	265
247	10	11	266
247	11	11	267
247	12	11	268
247	13	11	269
247	14	11	270
247	15	11	271
247	16	11	272
248	1	11	273
248	2	11	274
248	3	11	275
248	4	11	276
248	5	11	277
248	6	11	278
248	7	11	279
248	8	11	280
248	9	11	281
248	10	11	282
248	11	11	283
248	12	11	284
248	13	11	285
248	14	11	286
248	15	11	287
248	16	11	288

Matrix Position		Daughter Board	Relay No.
X	Y		
249	1	11	289
249	2	11	290
249	3	11	291
249	4	11	292
249	5	11	293
249	6	11	294
249	7	11	295
249	8	11	296
249	9	11	297
249	10	11	298
249	11	11	299
249	12	11	300
249	13	11	301
249	14	11	302
249	15	11	303
249	16	11	304
250	1	11	305
250	2	11	306
250	3	11	307
250	4	11	308
250	5	11	309
250	6	11	310
250	7	11	311
250	8	11	312
250	9	11	313
250	10	11	314
250	11	11	315
250	12	11	316
250	13	11	317
250	14	11	318
250	15	11	319
250	16	11	320
251	1	11	321
251	2	11	322
251	3	11	323
251	4	11	324
251	5	11	325
251	6	11	326
251	7	11	327
251	8	11	328
251	9	11	329
251	10	11	330
251	11	11	331
251	12	11	332
251	13	11	333
251	14	11	334
251	15	11	335
251	16	11	336

Matrix Position		Daughter Board	Relay No.
X	Y		
252	1	11	337
252	2	11	338
252	3	11	339
252	4	11	340
252	5	11	341
252	6	11	342
252	7	11	343
252	8	11	344
252	9	11	345
252	10	11	346
252	11	11	347
252	12	11	348
252	13	11	349
252	14	11	350
252	15	11	351
252	16	11	352
253	1	11	353
253	2	11	354
253	3	11	355
253	4	11	356
253	5	11	357
253	6	11	358
253	7	11	359
253	8	11	360
253	9	11	361
253	10	11	362
253	11	11	363
253	12	11	364
253	13	11	365
253	14	11	366
253	15	11	367
253	16	11	368

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
254	1	12	1
254	2	12	2
254	3	12	3
254	4	12	4
254	5	12	5
254	6	12	6
254	7	12	7
254	8	12	8
254	9	12	9
254	10	12	10
254	11	12	11
254	12	12	12
254	13	12	13
254	14	12	14
254	15	12	15
254	16	12	16
255	1	12	17
255	2	12	18
255	3	12	19
255	4	12	20
255	5	12	21
255	6	12	22
255	7	12	23
255	8	12	24
255	9	12	25
255	10	12	26
255	11	12	27
255	12	12	28
255	13	12	29
255	14	12	30
255	15	12	31
255	16	12	32
256	1	12	33
256	2	12	34
256	3	12	35
256	4	12	36
256	5	12	37
256	6	12	38
256	7	12	39
256	8	12	40
256	9	12	41
256	10	12	42
256	11	12	43
256	12	12	44
256	13	12	45
256	14	12	46
256	15	12	47
256	16	12	48

Matrix Position		Daughter Board	Relay No.
X	Y		
257	1	12	49
257	2	12	50
257	3	12	51
257	4	12	52
257	5	12	53
257	6	12	54
257	7	12	55
257	8	12	56
257	9	12	57
257	10	12	58
257	11	12	59
257	12	12	60
257	13	12	61
257	14	12	62
257	15	12	63
257	16	12	64
258	1	12	65
258	2	12	66
258	3	12	67
258	4	12	68
258	5	12	69
258	6	12	70
258	7	12	71
258	8	12	72
258	9	12	73
258	10	12	74
258	11	12	75
258	12	12	76
258	13	12	77
258	14	12	78
258	15	12	79
258	16	12	80
259	1	12	81
259	2	12	82
259	3	12	83
259	4	12	84
259	5	12	85
259	6	12	86
259	7	12	87
259	8	12	88
259	9	12	89
259	10	12	90
259	11	12	91
259	12	12	92
259	13	12	93
259	14	12	94
259	15	12	95
259	16	12	96

Matrix Position		Daughter Board	Relay No.
X	Y		
260	1	12	97
260	2	12	98
260	3	12	99
260	4	12	100
260	5	12	101
260	6	12	102
260	7	12	103
260	8	12	104
260	9	12	105
260	10	12	106
260	11	12	107
260	12	12	108
260	13	12	109
260	14	12	110
260	15	12	111
260	16	12	112
261	1	12	113
261	2	12	114
261	3	12	115
261	4	12	116
261	5	12	117
261	6	12	118
261	7	12	119
261	8	12	120
261	9	12	121
261	10	12	122
261	11	12	123
261	12	12	124
261	13	12	125
261	14	12	126
261	15	12	127
261	16	12	128
262	1	12	129
262	2	12	130
262	3	12	131
262	4	12	132
262	5	12	133
262	6	12	134
262	7	12	135
262	8	12	136
262	9	12	137
262	10	12	137
262	11	12	139
262	12	12	140
262	13	12	141
262	14	12	142
262	15	12	143
262	16	12	144

Matrix Position		Daughter Board	Relay No.
X	Y		
263	1	12	145
263	2	12	146
263	3	12	147
263	4	12	148
263	5	12	149
263	6	12	150
263	7	12	151
263	8	12	152
263	9	12	153
263	10	12	154
263	11	12	155
263	12	12	156
263	13	12	157
263	14	12	158
263	15	12	159
263	16	12	160
264	1	12	161
264	2	12	162
264	3	12	163
264	4	12	164
264	5	12	165
264	6	12	166
264	7	12	167
264	8	12	168
264	9	12	169
264	10	12	170
264	11	12	171
264	12	12	172
264	13	12	173
264	14	12	174
264	15	12	175
264	16	12	176
265	1	12	177
265	2	12	178
265	3	12	179
265	4	12	180
265	5	12	181
265	6	12	182
265	7	12	183
265	8	12	184
265	9	12	185
265	10	12	186
265	11	12	187
265	12	12	188
265	13	12	189
265	14	12	190
265	15	12	191
265	16	12	192

TABLE 7.7 - 23x16 Daughterboard Relay Look-Up Table (continued)

Matrix Position		Daughter Board	Relay No.
X	Y		
266	1	12	193
266	2	12	194
266	3	12	195
266	4	12	196
266	5	12	197
266	6	12	198
266	7	12	199
266	8	12	200
266	9	12	201
266	10	12	202
266	11	12	203
266	12	12	204
266	13	12	205
266	14	12	206
266	15	12	207
266	16	12	208
267	1	12	209
267	2	12	210
267	3	12	211
267	4	12	212
267	5	12	213
267	6	12	214
267	7	12	215
267	8	12	216
267	9	12	217
267	10	12	218
267	11	12	219
267	12	12	220
267	13	12	221
267	14	12	222
267	15	12	223
267	16	12	224
268	1	12	225
268	2	12	226
268	3	12	227
268	4	12	228
268	5	12	229
268	6	12	230
268	7	12	231
268	8	12	232
268	9	12	233
268	10	12	234
268	11	12	235
268	12	12	236
268	13	12	237
268	14	12	238
268	15	12	239
268	16	12	240

Matrix Position		Daughter Board	Relay No.
X	Y		
269	1	12	241
269	2	12	242
269	3	12	243
269	4	12	244
269	5	12	245
269	6	12	246
269	7	12	247
269	8	12	248
269	9	12	249
269	10	12	250
269	11	12	251
269	12	12	252
269	13	12	253
269	14	12	254
269	15	12	255
269	16	12	256
270	1	12	257
270	2	12	258
270	3	12	259
270	4	12	260
270	5	12	261
270	6	12	262
270	7	12	263
270	8	12	264
270	9	12	265
270	10	12	266
270	11	12	267
270	12	12	268
270	13	12	269
270	14	12	270
270	15	12	271
270	16	12	272
270	1	12	273
270	2	12	274
270	3	12	275
270	4	12	276
270	5	12	277
270	6	12	278
270	7	12	279
270	8	12	280
270	9	12	281
270	10	12	282
270	11	12	283
270	12	12	284
270	13	12	285
270	14	12	286
270	15	12	287
270	16	12	288

Matrix Position		Daughter Board	Relay No.
X	Y		
271	1	12	289
271	2	12	290
271	3	12	291
271	4	12	292
271	5	12	293
271	6	12	294
271	7	12	295
271	8	12	296
271	9	12	297
271	10	12	298
271	11	12	299
271	12	12	300
271	13	12	301
271	14	12	302
271	15	12	303
271	16	12	304
272	1	12	305
272	2	12	306
272	3	12	307
272	4	12	308
272	5	12	309
272	6	12	310
272	7	12	311
272	8	12	312
272	9	12	313
272	10	12	314
272	11	12	315
272	12	12	316
272	13	12	317
272	14	12	318
272	15	12	319
272	16	12	320
273	1	12	321
273	2	12	322
273	3	12	323
273	4	12	324
273	5	12	325
273	6	12	326
273	7	12	327
273	8	12	328
273	9	12	329
273	10	12	330
273	11	12	331
273	12	12	332
273	13	12	333
273	14	12	334
273	15	12	335
273	16	12	336

Matrix Position		Daughter Board	Relay No.
X	Y		
274	1	12	337
274	2	12	338
274	3	12	339
274	4	12	340
274	5	12	341
274	6	12	342
274	7	12	343
274	8	12	344
274	9	12	345
274	10	12	346
274	11	12	347
274	12	12	348
274	13	12	349
274	14	12	350
274	15	12	351
274	16	12	352
275	1	12	353
275	2	12	354
275	3	12	355
275	4	12	356
275	5	12	357
275	6	12	358
275	7	12	359
275	8	12	360
275	9	12	361
275	10	12	362
275	11	12	363
275	12	12	364
275	13	12	365
275	14	12	366
275	15	12	367
275	16	12	368

PCB LAYOUT DIAGRAMS

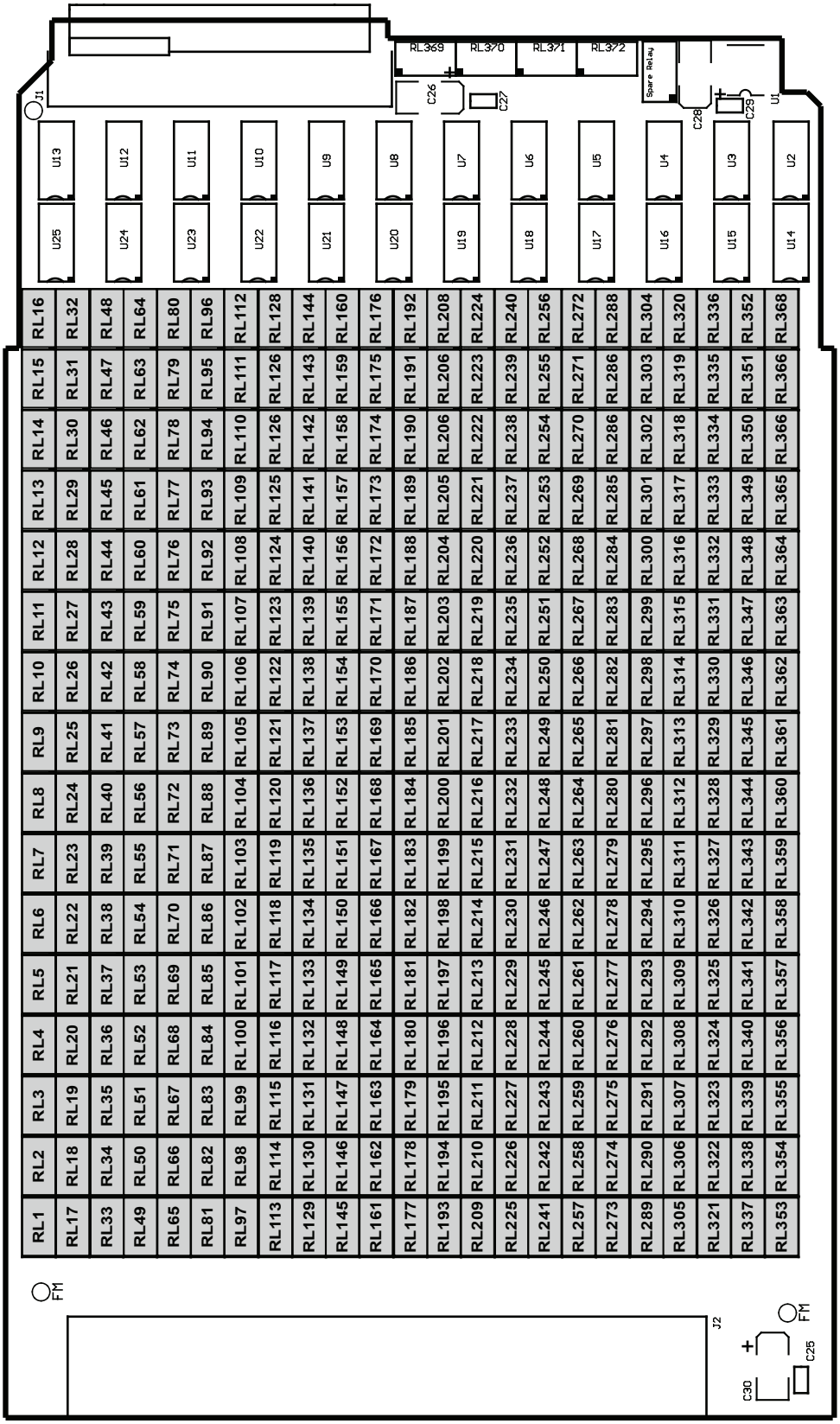


Figure 7.1 - 92x4 Matrix Daughterboard: Component Layout

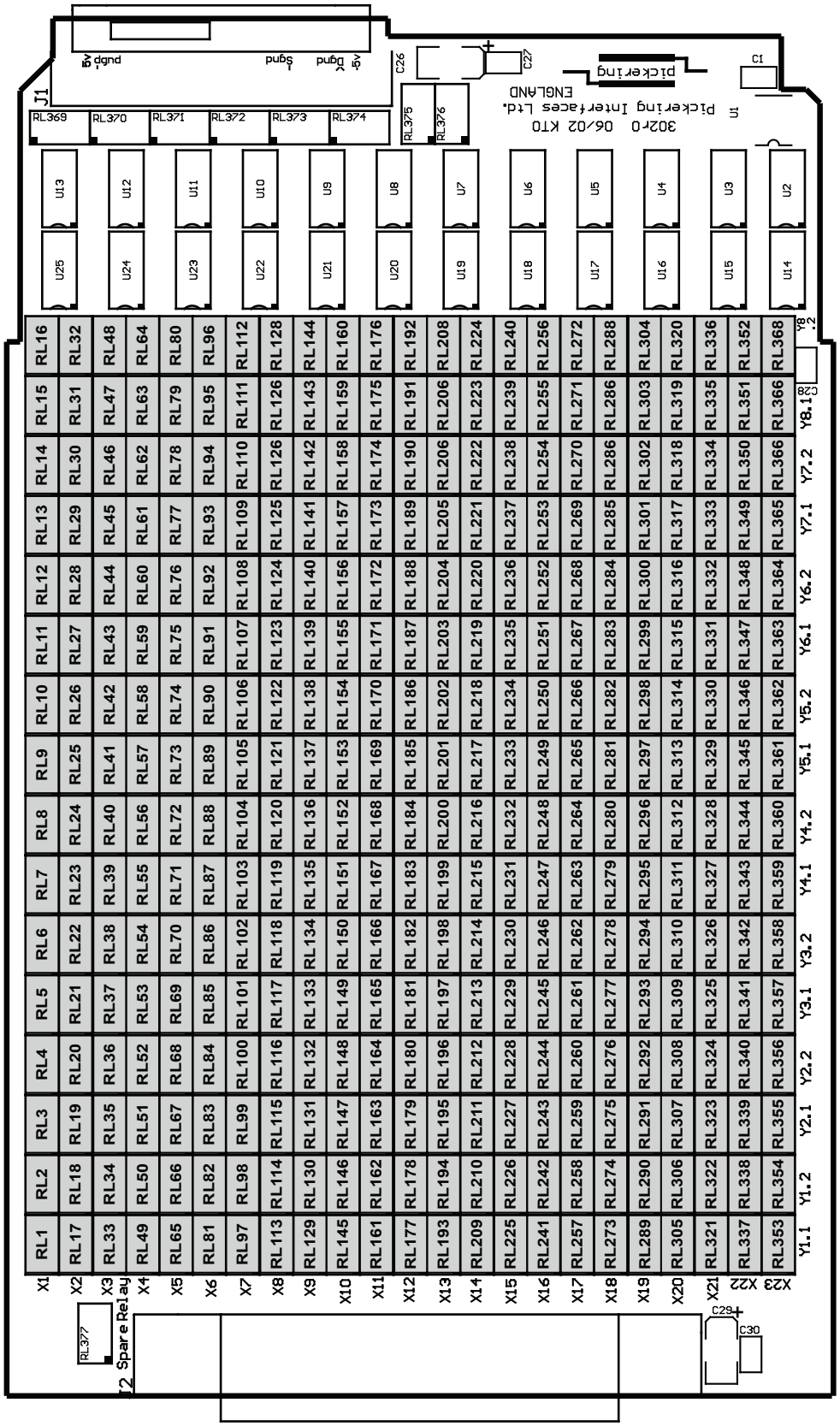


Figure 7.2 - 46x8 Matrix Daughterboard: Component Layout

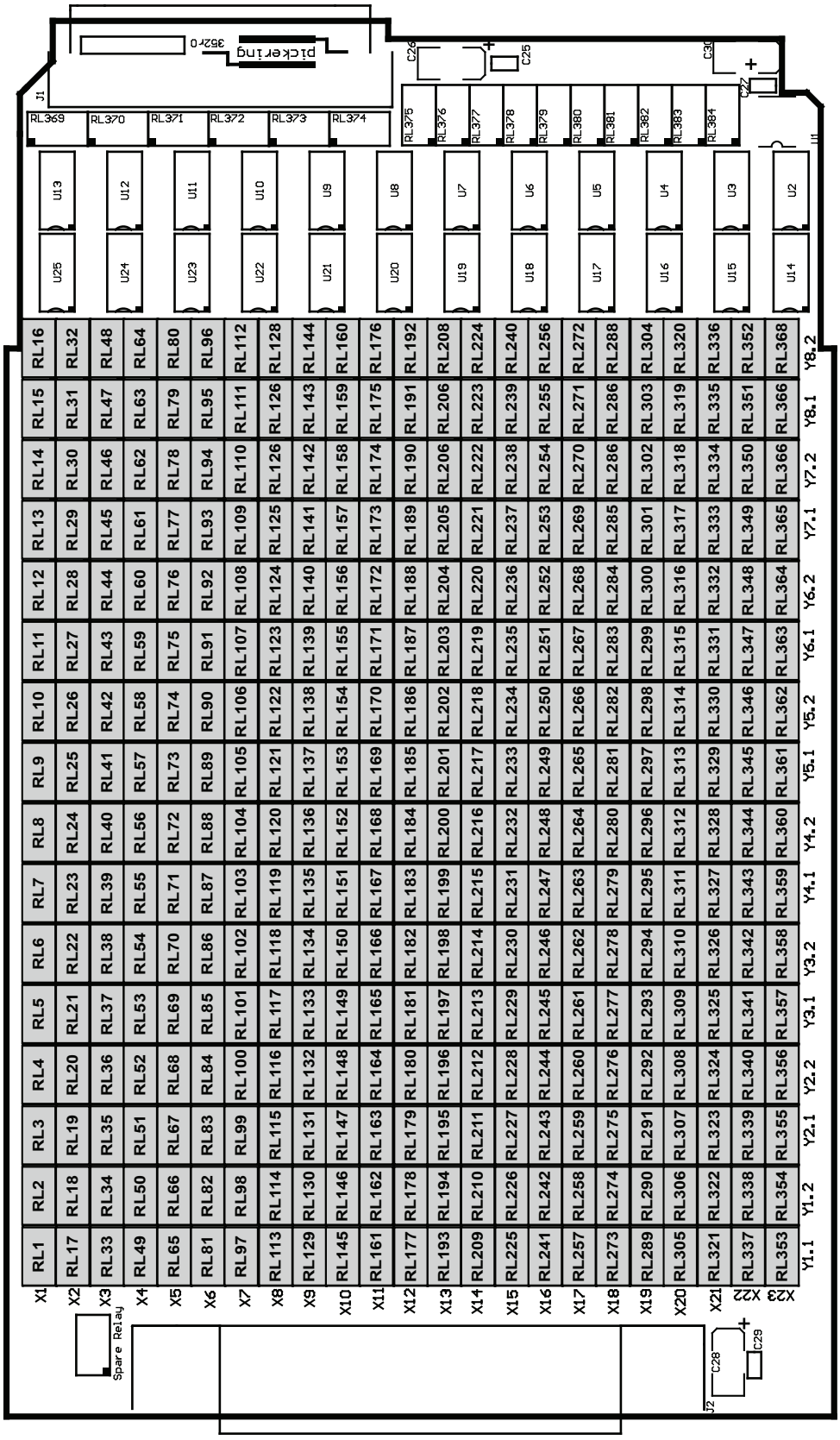


Figure 7.3 - 46x8-M Matrix Daughter Card: Component Layout

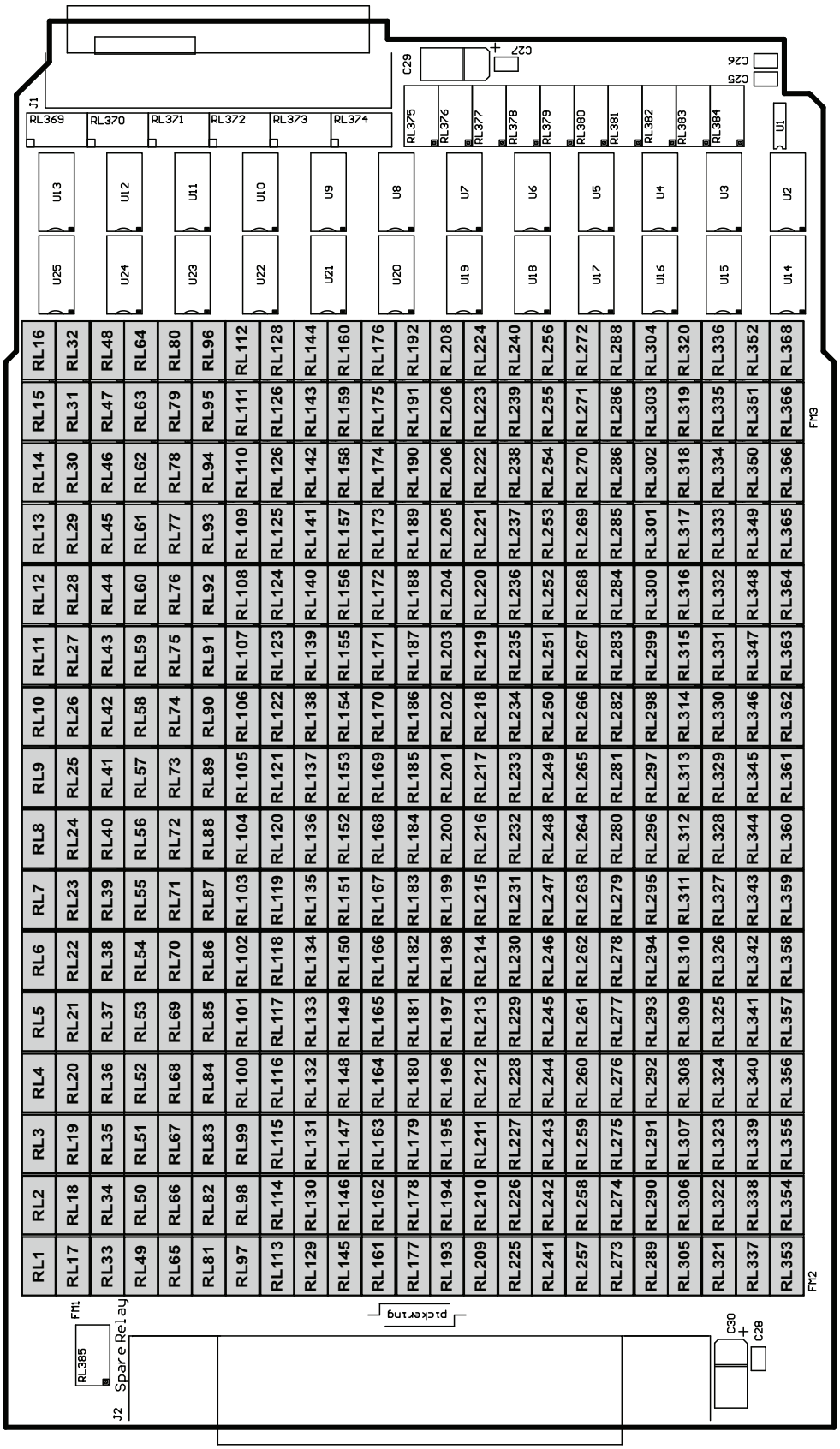


Figure 7.4 - 23x16 Matrix Daughter Card: Component Layout

DAUGHTERBOARD REMOVAL/REPLACEMENT



CAUTION

WHEN REMOVING DAUGHTERBOARDS FROM THE CHASSIS IT IS IMPORTANT THAT THE FOLLOWING PROCEDURE IS FOLLOWED.

Tools Required

- Small Cross-Head Screwdriver
- Bric Extraction Tool 44-999-001



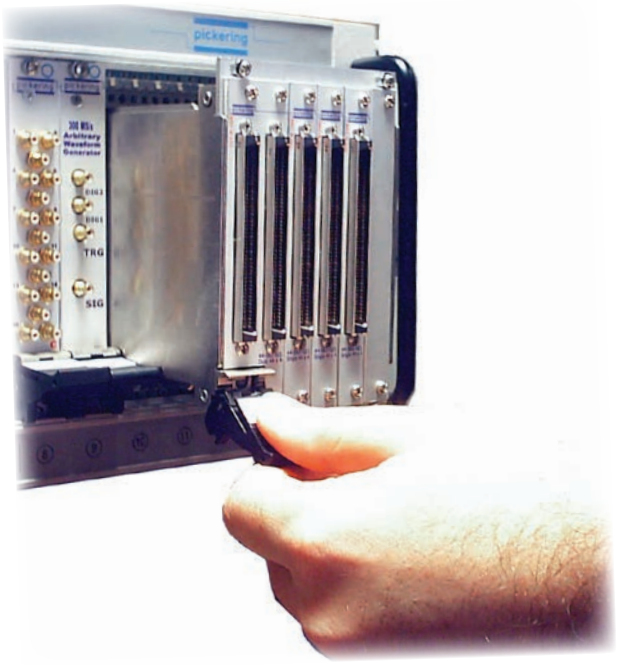
Removal Procedure

NOTE

If blanking plates are fitted, remove these first. If more than one daughterboard is to be removed, remove the daughterboard that is furthest to the LEFT, i.e. start removing daughterboards from the LEFT of the BRIC chassis.

Release the four cross-head screws securing the BRIC chassis to the PXI chassis.

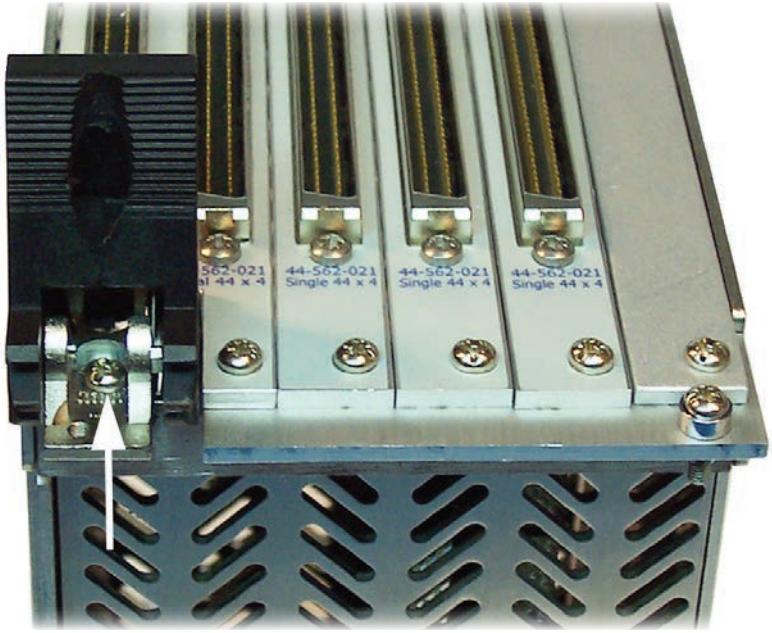
Push down the CPCI ejector handle and pull out the BRIC Chassis.



To remove the Daughterboard in slot 1 or 2:

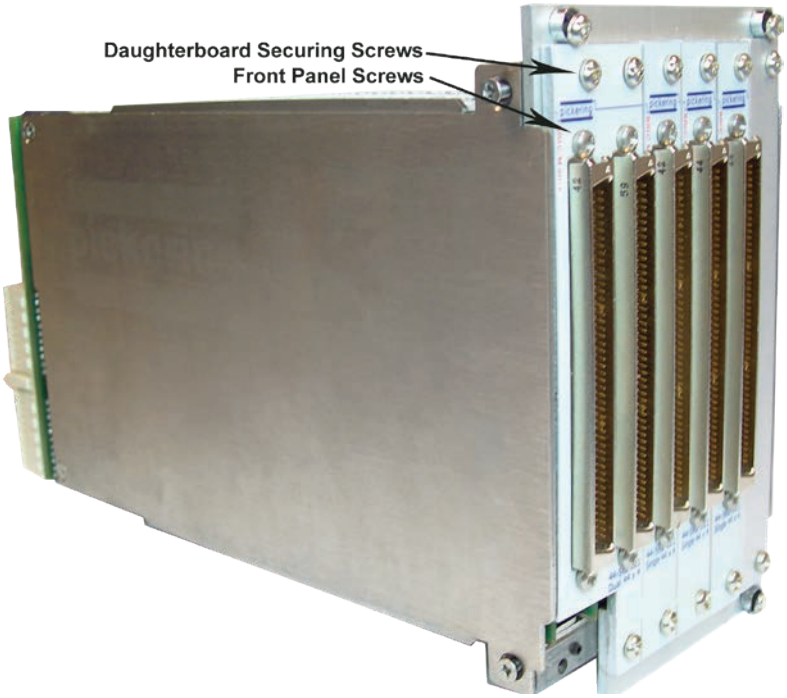
Remove the cross-head screw securing the ejector handle to daughterboards 1 and 2.

Remove the ejector handle.



Remove the remaining three cross-head screws securing daughterboards 1 and 2 to the BRIC Chassis.

Remove the four cross-head screws securing the front panel to daughterboards 1 and 2.

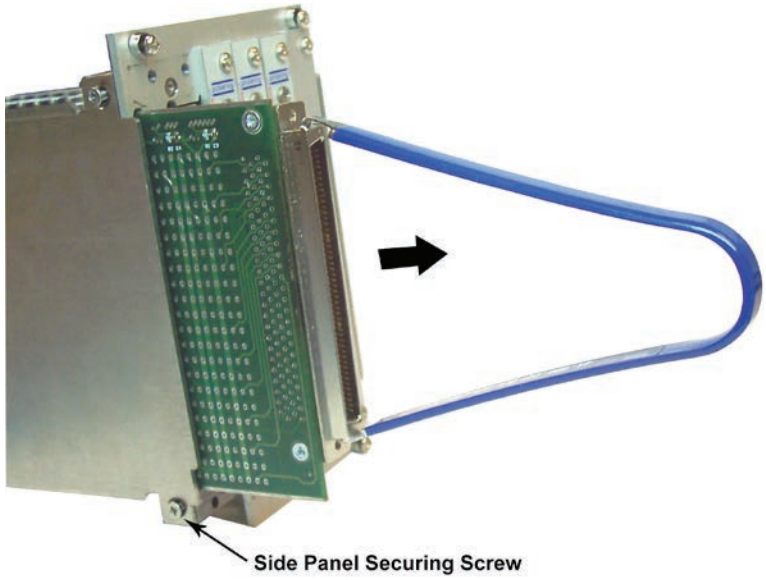


Remove the front panel.

Release the two securing screws to the front of both side panels.
(Note: On some earlier units complete removal of the side covers may be advisable to ease replacement)

Clip the removal tool over the daughterboard front panel connector.

Pull out the daughterboard.



To remove a Daughterboard from slots 3 to 12:

Remove the two cross-head screws securing the daughterboard to the BRIC Chassis.

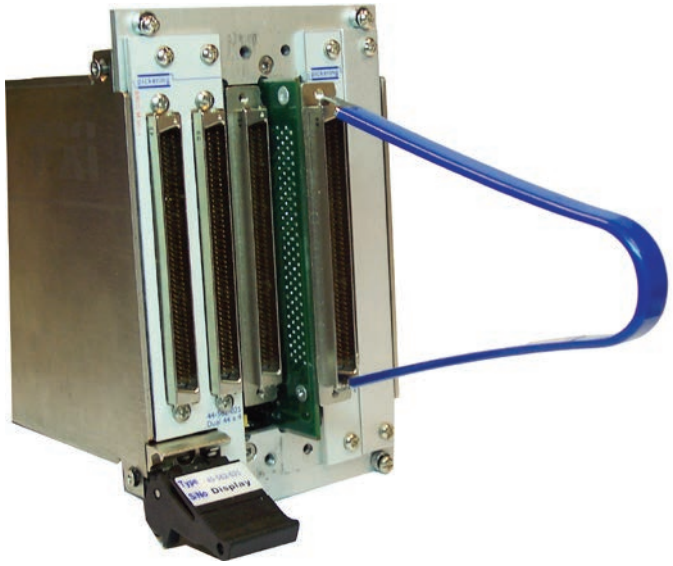
Remove the two cross-head screws securing the adjacent left daughterboard to the BRIC Chassis.

Remove the two cross-head screws securing the front panels to both daughterboards and remove the front panels from both.

Release the two securing screws to the front of both side panels.

Clip the removal tool over the daughterboard front panel connector.

Pull out the daughterboard.





CAUTION

THE BACKPLANE CONNECTORS ARE NOT PROVIDED WITH LOCATING GUIDES. IN THE FOLLOWING PROCEDURE IS IT IMPORTANT THAT THE DAUGHTERBOARD CONNECTOR IS ALIGNED WITH THE BACKPLANE CONNECTOR BEFORE THE MODULE IS PUSHED FULLY HOME.

REFITTING THE DAUGHTERBOARD

Insert the daughterboard into the appropriate slot. Slowly push the daughterboard into the backplane, but DO NOT force the daughterboard into the backplane connector. It may take a certain amount of manoeuvring to locate the daughterboard connector into the backplane connector. If the daughterboard connector does not locate correctly into the backplane connector a certain amount of freeplay allows the daughterboard to be manoeuvred up and down and from side to side until the connectors are aligned. Once the connectors are correctly aligned push the daughterboard home.

Repeat this procedure for all removed daughterboards.

Refit the front panels, and loosely secure with the securing screws, but DO NOT tighten any screws until everything is refitted.

(Note: There is 0.5 mm approx of “free play” on the Daughter Card between the back plane and the front panel. When tightening the front panel screws the inserted daughter card could be pulled out about 0.5 mm. This does not effect the interconnection on the backplane)

Refit the ejector handle if this was removed during the daughterboard 1 and 2 removal procedure.

Tighten all screws.

RELAY REPLACEMENT

NOTE

This is a very high density design, as a consequence removal of the relays can be awkward since there is no access to the relay sides to grip them during de-soldering. Further guidance on removal can be obtained on our Knowledgebase http://wiki.pickeringtest.net/Replacing+Relays or search the Knowledgebase for “Replacing Relays”.

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