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User Manual

Tektronix

73A-851
Adapter Module

070-9158-01

This document applies for firmware version 1.00 and above.

Please check for change information at the rear of this manual.

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We

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The Netherlands

declare under sole responsibility that the

73A-851 and Option 01

meets the intent of Directive 89/336/EEC for Electromagnetic Compatibility. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities:

EN 55011 Class A Radiated and Conducted Emissions

EN 50081-1 Emissions:

EN 60555-2 AC Power Line Harmonic Emissions

EN 50082-1 Immunity:

IEC 801-2 Electrostatic Discharge Immunity
IEC 801-3 RF Electromagnetic Field Immunity
IEC 801-4 Electrical Fast Transient/Burst Immunity
IEC 801-5 Power Line Surge Immunity

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Safety Summary

The general safety information in this summary is for both operating and servicing personnel. Additional specific warnings and cautions are found throughout the manual where they apply, and may not appear in this summary.

TERMS

In This Manual

WARNING statements identify conditions or practices that could result in personal injury or loss of life.

CAUTION statements identify conditions or practices that could result in damage to the module or other property.

Marked on the Module

DANGER indicates a personal injury hazard immediately accessible as one reads the marking.

CAUTION indicates a personal injury hazard not immediately accessible as one reads the marking, or a hazard to property, including the module itself.

SYMBOLS

In This Manual



This symbol indicates where applicable cautionary or other information is to be found.



This symbol indicates where special explanatory information is included in the manual. There is no caution or danger associated with the information.

Marked on the Module



DANGER — High Voltage.



Protective ground (earth) terminal.



ATTENTION — Refer to the manual.



Refer to manual before using.

Power Source

This module is intended to operate in a mainframe whose power source does not apply more than 250V rms between the supply conductors or between either supply conductor and ground. A protective ground connection through the grounding conductor in the power cord(s) is essential for safe operation.

Grounding the Module

This module is grounded through the grounding conductor of the mainframe power cord(s). To avoid electrical shock, plug the mainframe power cord(s) into a properly wired receptacle before connecting to the module connectors. A protective ground connection through the mainframe is essential for safe operation.

Danger Arising from Loss of Ground

Upon loss of the protective-ground connection, all accessible conductive parts can render an electric shock.

Use the Proper Fuse

To avoid fire hazard, use only fuses specified in the module parts list. A replacement fuse must meet the type, voltage rating, and current rating specifications required for the fuse that it replaces.

Do Not Operate in Explosive Atmosphere

To avoid explosion, do not operate the module in an explosive atmosphere.

Do Not Remove Covers or Panels

To avoid personal injury, the module covers should be removed only by qualified service personnel. Do not operate the module without covers and panels properly installed.

DESCRIPTION

INTRODUCTION

The 73A-851 Adapter Module is a printed circuit board assembly for use in a card cage conforming to the VXIbus Specification, such as the 73A-021 used in the CDS 73A IAC System. It allows A or B size VME modules, or A or B size VXIbus modules to be installed in a C size card cage. The 73A-851 Module maintains the proper VMEbus environment, timing, and backplane line length by buffering the VME address bus, data bus, and control signals and routing them to the installed module.

The VXIbus Specification fully defines all pins of all backplane connectors. Since the outer rows of P2 are classified as user definable by VME, the potential exists for pin use conflicts. To avoid this problem, pins P2-A1 through P2-A32 and pins P2-C1 through P2-C32 are isolated from the VXIbus backplane, but may not be accessed by the user.

If a 6U VME module is installed in the 73A-851, the user has the option of wiring directly to header fields, or of routing signals appearing on rows P2-A and -C to DC37-S connectors mounted on a separate removable front panel (Option 002).

If a B size VXIbus module is installed, the header fields must be strapped together to provide proper routing of the VXIbus local bus and trigger signals that use rows A and C of P2 (Option 001).

If a 3U VME module or an A size VXIbus module is installed, Option 003 is required to provide a mounting surface for the module.

CONTROLS

The following controls are provided to select the functions of the 73A-851 Module's operating environment. See Figure 851-1 for their physical locations.

Interrupt Select Switch

The 73A-851 has an Interrupt Select switch for each interrupt level on the VXIbus. These switches determine whether the installed module is to act as an interrupt handler or as an interrupter for each of the VME or VXIbus levels, IRQ1* through IRQ7*.

If an Interrupt Select switch is set to position 1, the module installed in the 73A-851 may be an interrupt handler on the corresponding interrupt level but may not be an interrupter on that level.

If an Interrupt Select switch is set to position 2, the module installed in the 73A-851 may be an interrupter on the corresponding level, but may not be an interrupt handler on that level.

If the installed module is neither an interrupter nor an interrupt handler on a particular interrupt level, the switch position for that level has no effect.

TTL Trigger Direction Switches

The 73A-851 has a Direction switch for each VXIbus TTL trigger line, which must be set if a B size VXIbus module is installed in the 73A-851. These switches correspond to VXIbus signals TTLTRG0* through TTLTRG7*.

If a Trigger Direction switch is set to position 1, the corresponding VXIbus trigger signal is an input to the module installed in the 73A-851. If a Trigger Direction switch is set to position 2, the corresponding VXIbus trigger signal is an output from the installed module.

If the installed module does not monitor or drive a particular TTL trigger signal, the switch position for that signal has no effect.

If any module needs to both drive and receive the same VXIbus TTL trigger line, please consult the factory.

ECL Trigger Direction Switches

The 73A-851 has a Direction switch for each VXIbus ECL trigger line, which must be set if a B size VXIbus module is installed in the 73A-851. These switches correspond to VXIbus signals ECLTRG0* and ECLTRG1*.

If a Trigger Direction switch is set to position 1, the corresponding VXIbus trigger signal is an input to the module installed in the 73A-851. If a Trigger Direction switch is set to position 2, the corresponding VXIbus trigger signal is an output from the installed module.

If the installed module does not monitor or drive a particular ECL trigger signal, the switch position for that signal has no effect.

If any module needs to both drive and receive the same VXIbus TTL trigger line, please consult the factory.

SYSRESET* Direction Switch

If this switch is set to position 1, the installed module can monitor SYSRESET* (P1-C12) on the VXIbus backplane. If this switch is set to position 2, the installed module can drive SYSRESET*. The SYSRESET* Direction switch should normally be set to position 1.

POWER JUMPER BLOCKS

CAUTION:

The three VXIbus P2 Power Jumper Blocks must be removed if a VME module is installed in the 73A-851.

These jumper blocks (included as part of Option 001) must be installed if a B size VXIbus module is installed in the 73A-851. The VXIbus P2 Power Jumper Blocks apply power to the installed module on the pins listed below:

+5V to P2-A25
-5V to P2- A7, A13, A19, C4, C19
-2v to P2-A2, C13
+24v to P2-C31
-24v to P2-C32
GND to P2- A4, A10, A16, A22, A28, A31, C3, C7, C10, C16, C22, C25, C28, C30
VXIbus MODID signal to P2-A30

The following signals may either be jumpered, or the jumpering connections may be changed, as indicated.

Jumper Connects

SUMBUS

VXIbus SUMBUS to P2-A32 when installed.

IACKIN*/IACKOUT* Position A (default):

Jumpers VME signals IACKIN* and IACKOUT* to the module installed in 73A-851.

Position B: Jumper VME signal IACKIN* to IACKOUT* without passing IACKIN* to the module installed in the 73A-851.

BG0IN*/BG0OUT* Position A (default):

Jumpers VME signals BG0IN* and BG0OUT* to the module installed in the 73A-851.

Position B: Jumpers VME signal BG0IN* to BG0OUT* without passing BG0IN* to the module installed in the 73A-851.

BG1IN*/BG1OUT* Position A (default):
Jumper VME signals BG1IN* and BG1OUT* to the module installed in the 73A-851.

Position B: Jumper VME signal BG1IN* to BG1OUT* without passing BG1IN* to the module installed in the 73A-851.

BG2IN*/BG2OUT* Position A (default):
Jumper VME signals BG2IN* and BG2OUT* to the module installed in the 73A-851.

Position B: Jumper VME signal BG2IN* to BG2OUT* without passing BG2IN* to the module installed in the 73A-851.

BG3IN*/BG3OUT* Position A (default):
Jumper VME signals BG3IN* and BG3OUT* to the module installed in the 73A-851.

Position B: Jumper VME signal BG3IN* to BG3OUT* without passing BG3IN* to the module installed in the 73A-851.

SERDAT*
When jumper is installed, VME signal SERDAT* is connected to P1-B22.

SERCLK Input
When installed, enables the installed module to monitor VME signal SERCLK. If this jumper is installed, the SERCLK Output jumper must be removed.

SERCLK Output
When installed, enables the installed module to drive VME signal SERCLK. If this jumper is installed, the SERCLK Input jumper must be removed.

ECL Trigger 0 Input
This jumper must be installed when the direction switch for VXIbus signal ECLTRG0* is set to position 1. It terminates the output of the ECL gate that monitors the ECLTRG0* signal. This jumper must be removed when the direction switch for VXIbus signal ECLTRG0* is set to position 2.

ECL Trigger 1 Input
This jumper must be installed when the direction switch for VXIbus signal ECLTRG1* is set to position 1. It terminates the output of the ECL gate that monitors the ECLTRG1* signal. This jumper must be removed when the direction switch for VXIbus signal ECLTRG1* is set to position 2.

To avoid unnecessary loading of the signal line, the SUMBUS signal should be jumpered only in VXIbus applications where it is used.

The IACKIN*/IACKOUT* jumper should <u>not</u> be moved to position B if the installed module can be an interrupt handler or interrupter in either a VME or VXIbus application.

The BG0IN*/BG0OUT* through BG3IN*/BG3OUT* jumpers should <u>not</u> be moved to position B if the installed module has bus master capability in either a VME or VXIbus application.

The SERDAT signal should be jumpered only in VXIbus applications where it is used, to avoid unnecessary loading of the signal.

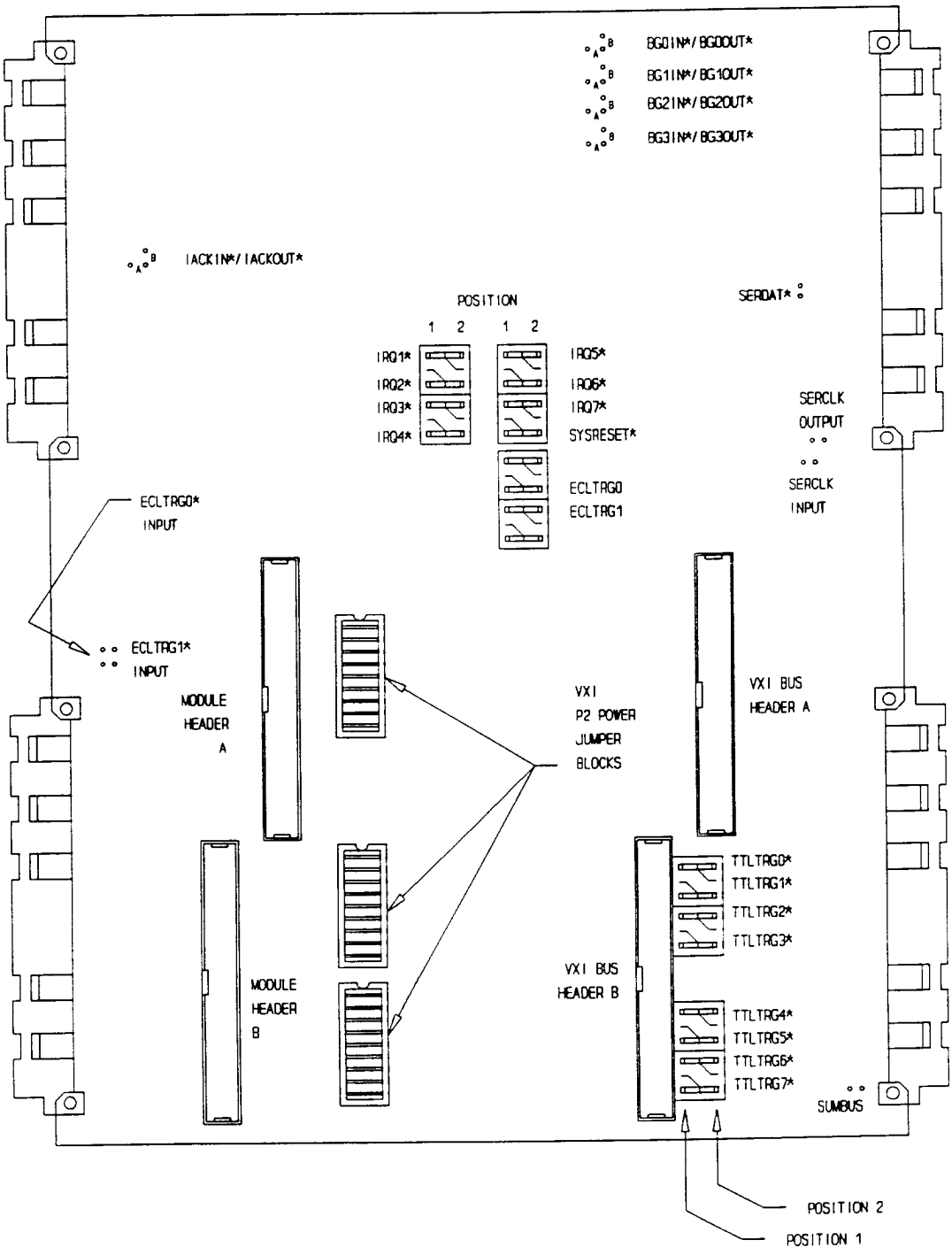


Figure 851-1: 73A-851 Controls and Indicators

SPECIFICATIONS

VMEbus Interface:	Data Transfer bus: D08(O), D08(EO), D16 OR D32. Address bus: A16, A24 OR A32. The module installed in the 73A-851 may act as a bus master or slave or both. VMEbus monitor modules that are neither masters nor slaves on the VME bus are not supported by the 73A-851. The module installed in the 73A-851 must not have a bus arbiter (can not be used in VXIbus slot 0), and must not drive SYSCLK (P1-A10). The module installed in the 73A-851 may be an interrupter or interrupt handler, but not both, on any given interrupt level. The module may be an interrupter on one level and an interrupt handler on another level. If the installed module has bus master capability, the 73A-851 converts the module's bus request protocol to the Fair Requestor [the Request Or No Request (RONR)] protocol specified by the VXIbus Specification. The installed module must generate bus requests on a single bus request level.
Triggering:	VXIbus TTL trigger protocol synchronous, asynchronous, and start/stop are supported. TTL semi-synchronous protocol is not supported. VXIbus ECL trigger protocol synchronous, asynchronous, and start/stop are supported. ECL semi-synchronous protocol is not supported.
Number of Slots:	One slot is required if the installed module is a VXIbus module. Two slots are required if the installed module is a VME module and access is needed to signals on module connector P2 rows A and C. The second slot is used to mount a front panel containing connectors that allow user access to the signals on module rear connector rows P2-A and -C.
Power Requirements:	All required dc power is provided by the Power Supply in the VXIbus card cage.

Voltage:	+5 Volt Supply:	4.75 V dc to 5.25 V dc.
	+24 Volt Supply:	+23.5 V dc to +24.5 V dc.
	-24 Volt Supply:	-23.5 V dc to -24.5 V dc.
Current (Peak Module, I_{PM}):	With no VME or VXI module installed:	
	5 volt supply:	0.8 A
	+24 volt supply:	0 A
	-24 volt supply:	0 A
	+12 volt supply:	0 A
	-12 volt supply:	0 A
	-5.2 volt supply:	90 mA
	-2.0 volt supply:	90 mA
Current* (Peak Module, I_{PM}):	5 volt supply:	5 A
	+24 volt supply:	0 A
	-24 volt supply:	0 A
	+12 volt supply:	30 mA
	-12 volt supply:	30 mA
	-5.2 volt supply:	90 mA
	-2.0 volt supply:	90 mA
Current* (Dynamic Module, I_{DM}):	5 volt supply:	25 mA ptp
	+24 volt supply:	0 A
	-24 volt supply:	0 A
	+12 volt supply:	19 mA ptp
	-12 volt supply:	27 mA ptp
	-5.2 volt supply:	0 A
	-2.0 volt supply:	0 A

* The peak module current and dynamic module current depend on the power requirements of the module installed in the 73A-851. The figures shown were measured with a Motorola MVME/21 microprocessor module installed in the 73A-851.

Cooling:

Provided by the fan in the VXIbus card cage. The air flow required to cool the 73A-851 and the pressure drop across the 73A-851 depend on the power requirements and component heights of the module installed in the 73A-851. The following cooling figures are for a Motorola MVME/21 microprocessor module installed in the 73A-851:

Less than 10°C temperature rise with 2.16 liters/sec of air at a pressure drop of 0.152 mm of H_2O.

Temperature:

-10°C to +55°C, operating (assumes ambient temperature of 55° and airflow to assure less than 10°C temperature rise).
-40°C to +85°C, storage.

Humidity:	Less than 95% R.H. non-condensing, -10°C to +30°C. Less than 75% R.H. non-condensing, +31°C to +40°C. Less than 45% R.H. non-condensing, +41°C to +55°C.
Radiated Emissions:	The 73A-851 provides shielding for the installed VME or VXIbus module. Compliance with the VXIbus Radiated Emissions specifications must be verified by the user.
Conducted Emissions:	The 73A-851 provides ac isolation from the dc power busses on the VXIbus backplane. Compliance with the VXIbus Conducted Emissions specifications must be verified by the user.
I/O Connections:	Option 002 only: Two DC37-S connectors (required for use with Option 73A-851-002).
Module Envelope Dimensions:	VXIbus C size. 262 mm x 353 mm x 30.5 mm (10.3 in x 13.9 in x 1.2 in)
Dimensions, Shipping:	When ordered with a CDS card cage, this module will be installed and secured in one of the instrument module slots (slots 1 - 12). When ordered alone, the module's shipping dimensions are: 406 mm x 305 mm x 102 mm. (16 in x 12 in x 4 in).
Weight:	1 kg. (2.13 lb).
Weight, Shipping:	When ordered with a CDS Card cage, this module will be installed and secured in one of the instrument module slots (slots 1-12). When ordered alone, the module's shipping weight is: 1.3 kg. (3 lb).
Mounting Position:	Any orientation.
Mounting Location:	Installs in an instrument module slot (slots 1-12) of a C or D size VXIbus card cage. (Refer to D size card cage manual for information on required adapters.)

Equipment Supplied:

1 - 73A-851 Adapter Module.

2 - Captive Screws

Optional Equipment:

Options:

Option 001: Required when installing a B size VXI module in the 73A-851:

2 - Ribbon Cable Assembly (Part # 91100-85103).

3 - Jumper Blocks (Part # 45020-98136).

Option 002: Used when installing a 6U size VME module in the 73A-851 that requires access to P2 connector, rows P2-A and -C; includes separate removable front panel:

1 - Ribbon Cable Assembly (Part # 73A-851-002)

Option 003: Required when installing a 3U VME module or an A size VXI module in the 73A-851:

1 - A Size Adapter (Part # 73A-851-003)

INSTALLATION

INSTALLATION REQUIREMENTS AND CAUTIONS

The 73A-851 Module is a C size VXIbus instrument module and therefore may be installed in any C or D size VXIbus card cage slot other than slot 0. If the module is being installed in a D size card cage, consult the operating manual for the card cage to determine how to install the module in that particular card cage.

NOTE: The following system level restriction must be observed when using the 73A-851 Module:

If a bus master is installed in the 73A-851, the 73A-851 must be installed in a slot to the right of any other bus master that issues bus requests on the same level as the bus master installed on the 73A-851.

If a slave module is installed in the 73A-851, then no bus master installed in the same card cage is permitted to do address pipelined bus cycles.

Tools Required

The following tools are required for proper installation:

Slotted screwdriver set.

CAUTION:

In order to maintain proper card cage cooling, unused card cage slots must be covered with blank front panels supplied by the card cage manufacturer. Based on the number of modules ordered with a CDS card cage, blank front panels are supplied to cover all unused slots.

CAUTION:

Verify that the card cage is able to provide adequate cooling and power for the 73A-851 Module. Refer to the card cage Operating Manual for instructions on determining cooling and power compatibility.

INSTALLATION PROCEDURE

CAUTION:

The 73A-851 Module is a piece of electronic equipment and therefore has some susceptibility to electrostatic damage (ESD). ESD precautions must be taken whenever the module is handled.

Any module to be installed in the 73A-851 must conform to the VME Rev C.1 rules 7.34 and 7.35 to insure it will pass through the opening in the front panel of the 73A-851. These rules specify the maximum lead length and height of components on a VME module.

- **VMEbus 6U Size Module Installation With Option 002**

Option 002 is required when a 6U VME module is to be installed in the 73A-851 that requires access to P2 connector, rows P2-A and -C.

73A-851 installation procedure when used with Option 002 and a 6U size VME module is as follows:

1) Connect the ribbon cable assembly to Module Headers A and B on the 73A-851 (see Figure 851-1). Make sure that pin 1 of each ribbon cable (indicated by the red wire at one side of each cable) is connected to pin 1 of its header.

2) Remove the three VXIbus P2 Power Jumper Blocks from the 73A-851. These jumper blocks connect +5V, -5.2V, -2V, +24V and -24V power and ground to the installed module's P2 connector per the VXIbus Specification.

CAUTION:
Application of these voltages to a VME module could cause severe damage to the VME module.

3) Be sure all switches are correctly set. Install the 73A-851 Module in any slot other than slot 0.

4) Remove the two captive screws at the top and bottom of the front panel of the VME module to be installed. Replace them with the captive screws shipped with the 73A-851.

5) Slide the VME module through the cutout in the 73A-851 front panel.

6) Fasten the 73A-851 and VME module to the VXIbus card cage with the captive screws at the top and bottom of the VME card front panel.

7) Fasten the front panel connected to the ribbon cable assembly to the VXIbus card cage immediately to the right of the 73A-851 Module.

NOTE on address selection of an installed VME module:

The installed VME module must not reside in the upper quarter of A16 address space (0C000h to 0FFFFh). It may reside in the lower three quarters of A16 address space (0000h to 0BFFFh).

If the installed module uses any A24 or A32 address space, be sure that the address space used by the VME module does not coincide with A24/A32 address space assigned to VXIbus modules by the VXIbus Resource Manager.

- **VXIbus B Size Module Installation With Option 01**

Option 01 is required when a B size VXIbus module is to be installed in the 73A-851.

73A-851 installation procedure when used with a B size VXIbus module is as follows:

1) Connect one ribbon cable assembly from Module Header A to VXI Bus Header A on the 73A-851 Module (see Figure 851-1). Connect one ribbon cable assembly from Module Header B to VXI Bus Header B on the 73A-851 Module. Make sure that pin 1 of each ribbon cable (indicated by the red wire at one side of each cable) is connected to pin 1 of its header.

2) Install the three VXIbus P2 Power Jumper Blocks on the 73A-851. These jumper

blocks connect power and ground from backplane connector P2 rows A and C to the VXIbus module. These jumpers should be installed only if a VXIbus module is installed in the 73A-851. They MUST be removed if a VME module is to be installed in the 73A-851.

3) Be sure all switches are correctly set. Install the 73A-851 in any slot other than slot 0.

4) Remove the two captive screws at the top and bottom of the front panel of the VME module to be installed. Replace them with the captive screws shipped with the 73A-851.

5) Slide the VXIbus module through the cutout in the 73A-851 front panel.

6) Fasten the 73A-851 and VXIbus module to the VXIbus card cage with the captive screws at the top and bottom of the VME card front panel.

• VMEbus/VXIbus A Size Module Installation With Option 03

Option 03 is required when a 3U size VME module or an A size VXI module is to be installed in the 73A-851.

73A-851 installation when used with a 3U size VME module or an A size VXIbus module is as follows:

1) Check that all switch settings are correct on the 73A-851 Module and the A or 3U size module to be installed.

2) Install the 73A-851 Module in any slot other than slot 0.

3) Install an A size Adapter assembly over the bottom half of the cutout in the front panel of the 73A-851 Module.

4) Replace the captive screw at the top of the A size module with one of the captive screws shipped with the 73A-851.

5) Slide the A size module through the top half of the cutout in the front panel of the 73A-851 Module.

6) Fasten the 73A-851 and the A size module to the VXIbus card cage with the captive screws at the top and bottom of the A size module and the captive screw at the bottom of the A size adapter assembly.

INSTALLATION CHECKLIST

Installation parameters may vary depending on the card cage being used. Be sure to consult the card cage Operating Manual before installing and operating the 73A-851 Module.

Revision Level: _____

Serial No.: _____

Card Cage Slot Number: _____

Switch Settings:	1	2
Interrupt Select Switches:		
IRQ1*	___	___
IRQ2*	___	___
IRQ3*	___	___
IRQ4*	___	___
IRQ5*	___	___
IRQ6*	___	___
IRQ7*	___	___
TTL Trigger Direction Switches:		
TTLTRG0*	___	___
TTLTRG1*	___	___
TTLTRG2*	___	___
TTLTRG3*	___	___
TTLTRG4*	___	___
TTLTRG5*	___	___
TTLTRG6*	___	___
TTLTRG7*	___	___
ECL Trigger Direction Switches:		
ECLTRG0*	___	___
ECLTRG1*	___	___
SERCLK Direction Switch:	___	___
SYSRESET* Direction Switch:	___	___

Jumpers:		
VXIbus P2 Power Jumper Blocks:	___ IN	___ OUT
SUMBUS:	___ IN	___ OUT
IACKIN*/IACKOUT*:	___ A	___ B
BG0IN*/BG0OUT*:	___ A	___ B
BG1IN*/BG1OUT*:	___ A	___ B
BG2IN*/BG2OUT*:	___ A	___ B
BG3IN*/BG3OUT*:	___ A	___ B
ECL Trigger 0 Input:	___ IN	___ OUT
ECL Trigger 1 Input:	___ IN	___ OUT
SERCLK Input:	___ IN	___ OUT
SERCLK Output:	___ IN	___ OUT
SERDAT*:	___ IN	___ OUT

Performed by: _____ Date: _____

OPERATION

Once the 73A-851 Module is installed, no operator intervention is required for proper operation.

The commands normally used to interact with the VME or VXIbus Module installed on the 73A-851 will function as usual.

If the module is being used in a CDS 73A-IBX System card cage, the module's commander will be the 73A-151 or 73A-151B Resource Manager/IEEE-488 Interface Module. Refer to the 73A-151/B Operating Manual for information on how the system controller communicates with the 73A-151/B.

APPENDIX A - FRONT PANEL INPUT/OUTPUT CONNECTIONS

The table below applies only when a VME 6U size module and a ribbon cable assembly 91100-85101 are installed on the 73A-851 Module. This cable assembly (Option 002) connects rows A and C of P2 on the installed VME module to two DC37P connectors mounted on a separate removable front panel.

P2 PIN NUMBERS	DC37P PIN NUMBERS	P2 PIN NUMBERS	DC37P PIN NUMBERS
A1	S4-1	C1	S4-2
A2	S4-3	C2	S4-4
A3	S4-5	C3	S4-6
A4	S4-7	C4	S4-8
A5	S4-9	C5	S4-10
A6	S4-11	C6	S4-12
A7	S4-13	C7	S4-14
A8	S4-15	C8	S4-16
A9	S4-17	C9	S4-18
A10	S4-19	C10	S4-20
A11	S4-21	C11	S2-22
A12	S4-23	C12	S4-24
A13	S4-25	C13	S4-26
A14	S4-27	C14	S4-28
A15	S4-29	C15	S4-30
A16	S4-31	C16	S4-32
A17	S5-1	C17	S5-2
A18	S5-3	C18	S5-4
A19	S5-5	C19	S5-6
A20	S5-7	C20	S5-8
A21	S5-9	C21	S5-10
A22	S5-11	C22	S5-12
A23	S5-13	C23	S5-14
A24	S5-15	C24	S5-16
A25	S5-17	C25	S5-18
A26	S5-19	C26	S5-20
A27	S5-21	C27	S5-22
A28	S5-23	C28	S5-24
A29	S5-25	C29	S5-26
A30	S5-27	C30	S5-28
A31	S5-29	C31	S5-30
A32	S5-31	C32	S5-32

APPENDIX B - TROUBLESHOOTING PROCEDURE

If a VME module installed in the 73A-851 Module does not function properly, use the following procedure before consulting the factory:

1) Check the switch settings on the 73A-851 Module. These settings must be set according to the capabilities of the installed module. For example, if the installed module generates interrupts on VME level 3, the IRQ3* switch on the 73A-851 Module must be set to position 2.

2) Check the jumper positions on the 73A-851 Module. The three P2 power jumper blocks must be removed if a VME module is installed in the 73A-851.

3) If the 73A-851 switch settings and jumper positions are correct and the module still does not function properly, remove the module from the 73A-851 module and install it on a VME extender board. If a VME module is being used, be sure to isolate the VME module from P2 rows A and C.

4) If the module functions properly after following step 3, call CDS for help in resolving the problem that appears when the module is installed on the 73A-851.

5) If the module still does not function properly after following step 3, recheck the switch settings and jumper positions on the module. VME modules must not be placed in the upper quarter of A16 address space (0C000h through 0FFFFh with address modifiers 29h or 2Dh).

Also verify that any A24 or A32 address space used by the module does not coincide with address space assigned to another VXIbus module installed in the system.

Appendix C
Options

Option 01

Option 01 provides required jumper blocks for VXIbus "B" size module. And it connects rows A and C of P2 to rows A and C of the "B" size VXI module.

Option 02

Option 02 provides a two-wide front panel with access to rows A & C of VME module (via 2 DC37P connectors).

Option 03

Option 03 provides a front panel for use with "A" size module.

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