VMIACC-BT01, 02, 03, 04

TRANSITION PANELS

INSTRUCTION MANUAL

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RECORD OF REVISIONS

REVISION LETTER	DATE	PAGES INVOLVED	CHANGE NUMBER
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B	04/25/94	Change per ECO	94-0385
C	10/10/94	Change per ECO	94-0781

VMIC
SAFETY SUMMARY

THE FOLLOWING GENERAL SAFETY PRECAUTIONS MUST BE OBSERVED DURING ALL PHASES OF THE OPERATION, SERVICE, AND REPAIR OF THIS PRODUCT. FAILURE TO COMPLY WITH THESE PRECAUTIONS OR WITH SPECIFIC WARNINGS ELSEWHERE IN THIS MANUAL VIOLATES SAFETY STANDARDS OF DESIGN, MANUFACTURE, AND INTENDED USE OF THIS PRODUCT. VME MICROSYSTEMS INTERNATIONAL CORPORATION ASSUMES NO LIABILITY FOR THE CUSTOMER'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.

GROUND THE SYSTEM

To minimize shock hazard, the chassis and system cabinet must be connected to an electrical ground. A three-conductor AC power cable should be used. The power cable must either be plugged into an approved three-contact electrical outlet or used with a three-contact to two-contact adapter with the grounding wire (green) firmly connected to an electrical ground (safety ground) at the power outlet.

DO NOT OPERATE IN AN EXPLOSIVE ATMOSPHERE

Do not operate the system in the presence of flammable gases or fumes. Operation of any electrical system in such an environment constitutes a definite safety hazard.

KEEP AWAY FROM LIVE CIRCUITS

Operating personnel must not remove product covers. Component replacement and internal adjustments must be made by qualified maintenance personnel. Do not replace components with power cable connected. Under certain conditions, dangerous voltages may exist even with the power cable removed. To avoid injuries, always disconnect power and discharge circuits before touching them.

DO NOT SERVICE OR ADJUST ALONE

Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.

DO NOT SUBSTITUTE PARTS OR MODIFY SYSTEM

Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the product. Return the product to VME Microsystems International Corporation for service and repair to ensure that safety features are maintained.

DANGEROUS PROCEDURE WARNINGS

Warnings, such as the example below, precede only potentially dangerous procedures throughout this manual. Instructions contained in the warnings must be followed.

WARNING

DANGEROUS VOLTAGES, CAPABLE OF CAUSING DEATH, ARE PRESENT IN THIS SYSTEM. USE EXTREME CAUTION WHEN HANDLING, TESTING, AND ADJUSTING.

SAFETY SYMBOLS

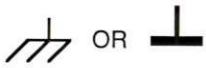
GENERAL DEFINITIONS OF SAFETY SYMBOLS USED IN THIS MANUAL

Instruction manual symbol: the product is marked with this symbol when it is necessary for the user to refer to the instruction manual in order to protect against damage to the system.

Indicates dangerous voltage (terminals fed from the interior by voltage exceeding 1000 volts are so marked).

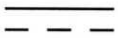
Protective conductor terminal. For protection against electrical shock in case of a fault. Used with field wiring terminals to indicate the terminal which must be connected to ground before operating equipment.

Low-noise or noiseless, clean ground (earth) terminal. Used for a signal common, as well as providing protection against electrical shock in case of a fault. Before operating the equipment, terminal marked with this symbol must be connected to ground in the manner described in the installation (operation) manual.



Frame or chassis terminal. A connection to the frame (chassis) of the equipment which normally includes all exposed metal structures.

Alternating current (power line).



Direct current (power line).

Alternating or direct current (power line).

WARNING

The WARNING sign denotes a hazard. It calls attention to a procedure, a practice, a condition, or the like, which, if not correctly performed or adhered to, could result in injury or death to personnel.

CAUTION

The CAUTION sign denotes a hazard. It calls attention to an operating procedure, a practice, a condition, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the system.

NOTE:

The NOTE sign denotes important information. It calls attention to a procedure, a practice, a condition or the like, which is essential to highlight.

VMIACC-BT01, 02, 03, 04
TRANSITION PANELS

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SECTION 1

INTRODUCTION

1.1 INTRODUCTION

The VMIACC-BT01, 02, 03, and 04 family of transition panels meets ANSI/IEEE SWC TEST.

The BT transition panels are passive and provide an efficient and versatile interfacing between discrete wires to ribbon cables, between external user equipment and VMIC's VMEbus-based interface boards. The BT transition panels eliminate the need for wire lugs and other bulky methods of wiring transitions.

1.2 FEATURES

The VMIACC-BT01 differential dual 64-pin transition panel facilitates 64 isolated pair circuits with no common ground (2-wire). The VMIACC-BT02 single-ended dual 64-pin transition panel facilitates 64 nonisolated pair circuits with C-row tied to common ground E1 (2-wire). The VMIACC-BT03 differential dual 96-pin transition panel facilitates 64 isolated pair circuits with a common ground (3-wire). The VMIACC-BT04 dual 96-pin transition panel breaks out 192 individual circuits to terminal blocks. The BT transition panels are EIA RS-310C standard 19-inch rack mountable. The BT transition panels are compact and convenient to use even where space is a constraint. The panels will accommodate wire size from 22 AWG to 14 AWG stranded wire or to 12 AWG solid wire.

1.3 GENERAL DESCRIPTION

The VMIACC-BT01, 02, 03, and 04 transition panels in essence are a rapid transition vehicle system that reduces connective time significantly.

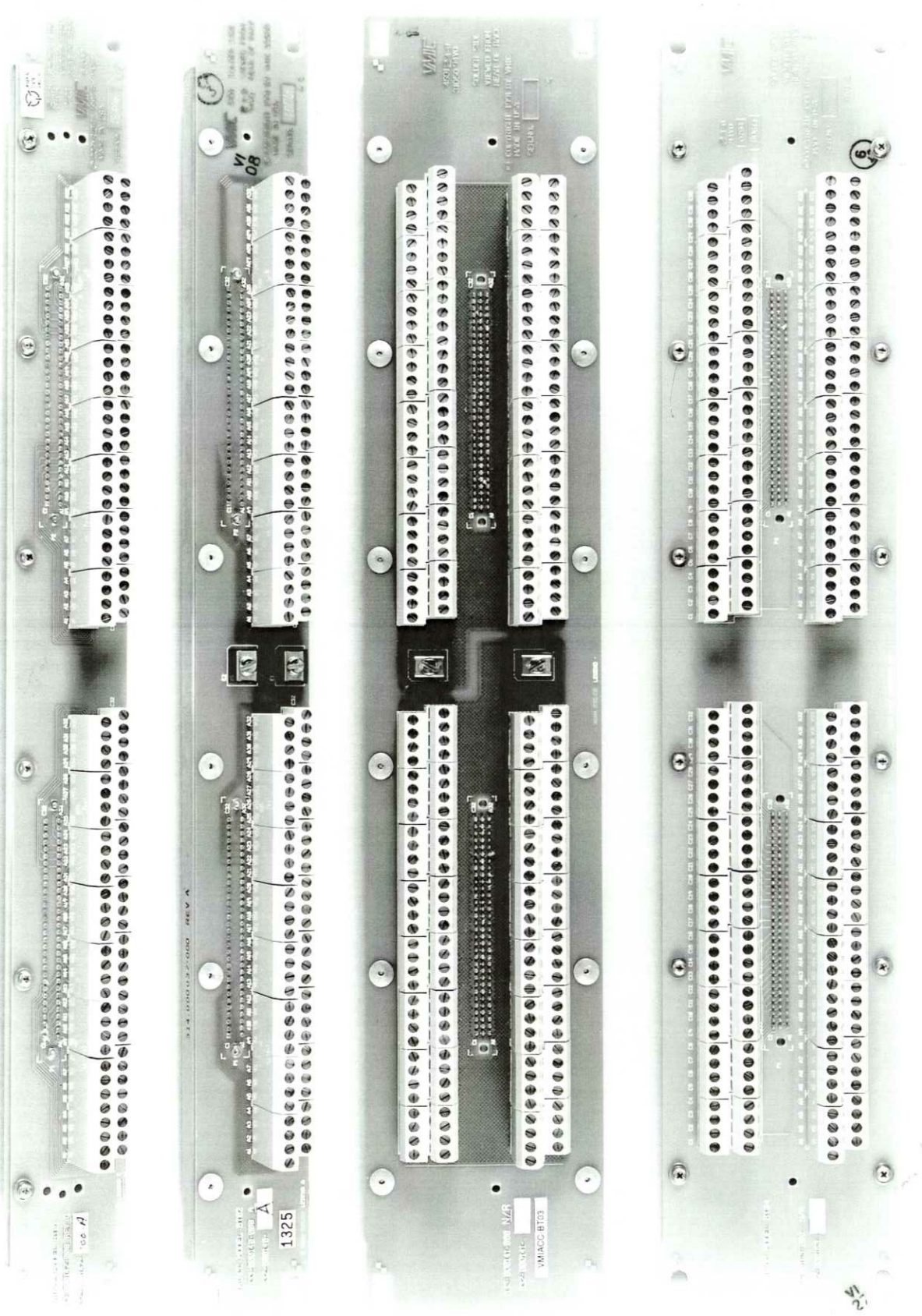
1.4 REFERENCE MATERIALS LIST

The following reference materials are found in Appendix A

132-010142-000	VMIACC-BT01 Assembly drawing
132-010140-000	VMIACC-BT02 Assembly drawing
132-010141-000	VMIACC-BT03 Assembly drawing
132-000163-000	VMIACC-BT04 Assembly drawing
141-000142-000	VMIACC-BT01 Schematic

1.4 REFERENCE MATERIALS LIST (Concluded)

141-000140-000	VMIACC-BT02 Schematic
141-000141-000	VMIACC-BT03 Schematic
141-000163-000	VMIACC-BT04 Schematic
800-000142-000	VMIACC-BT01 Specification
800-000140-000	VMIACC-BT02 Specification
800-000141-000	VMIACC-BT03 Specification
800-000163-000	VMIACC-BT04 Specification



VMIACC-BT01, 02, 03, and 04 Transition Panels

SECTION 2

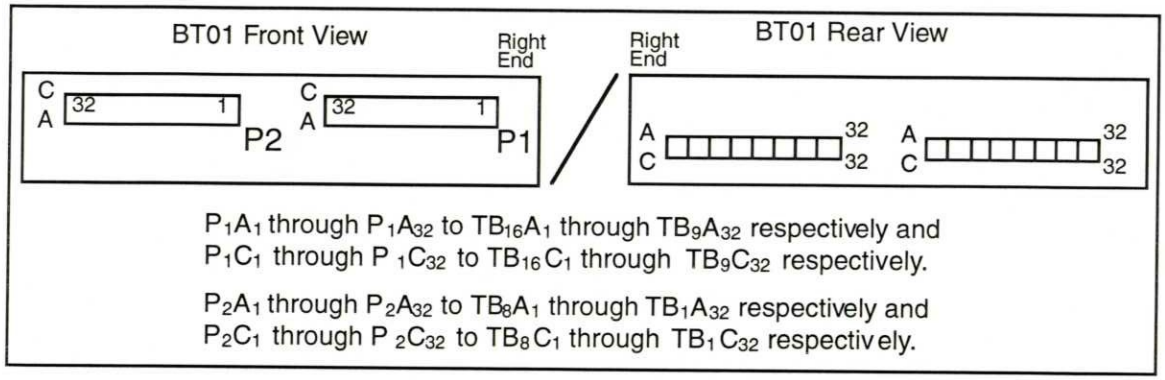
INSTALLATION

2.1 GENERAL INSTALLATION

The VMIACC-BT01, 02, 03, and 04 will fit EIA-RS-310C standard 19-inch equipment racks/rails.

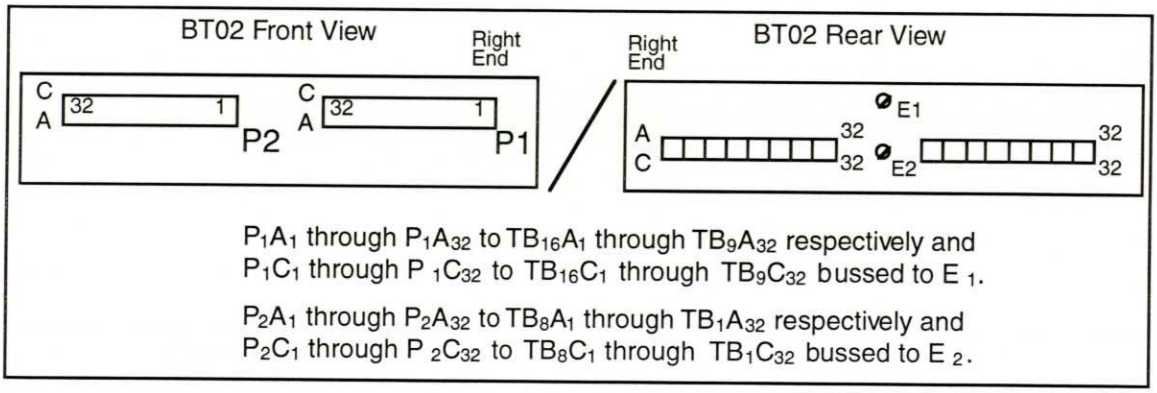
The VMIACC-BT01 and 02 transition panels are 1U high (1.75 inches) and the VMIACC-BT03 and 04 transition panels are 2U high (3.50 inches).

The VMIACC-BT01, 02, 03, and 04 transition panel(s) should be securely fastened into/onto the rack/rails with screws then cabled up to interface the VMIC I/O boards with the discrete wires.



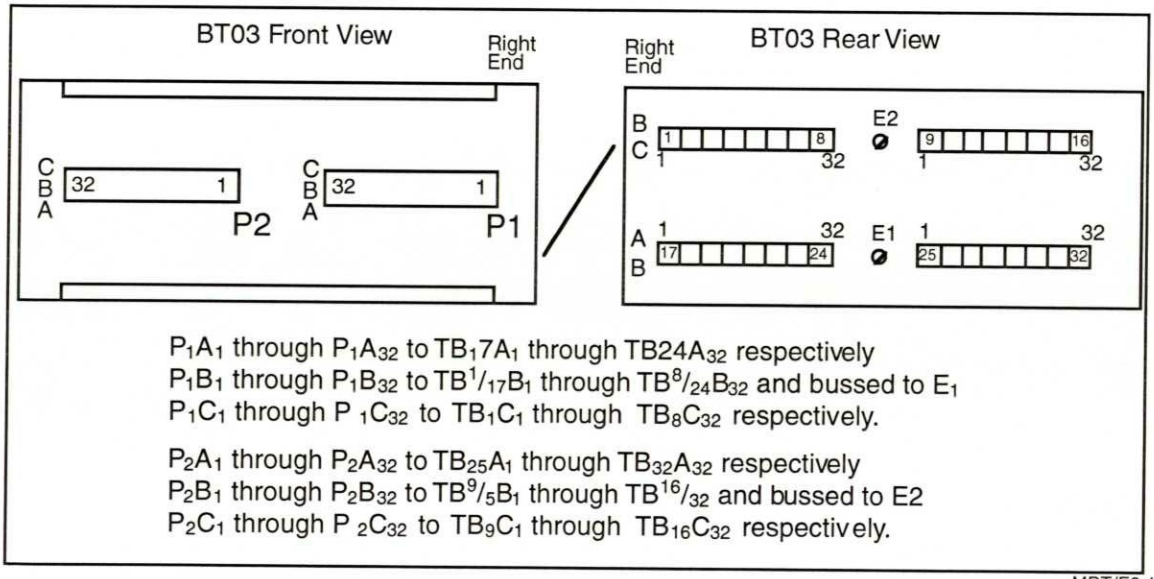
P_1A_1 through P_1A_{32} to $TB_{16}A_1$ through TB_9A_{32} respectively and
P_1C_1 through P_1C_{32} to $TB_{16}C_1$ through TB_9C_{32} respectively.

P_2A_1 through P_2A_{32} to TB_8A_1 through TB_1A_{32} respectively and
P_2C_1 through P_2C_{32} to TB_8C_1 through TB_1C_{32} respectively.



P_1A_1 through P_1A_{32} to $TB_{16}A_1$ through TB_9A_{32} respectively and
P_1C_1 through P_1C_{32} to $TB_{16}C_1$ through TB_9C_{32} bussed to E_1.

P_2A_1 through P_2A_{32} to TB_8A_1 through TB_1A_{32} respectively and
P_2C_1 through P_2C_{32} to TB_8C_1 through TB_1C_{32} bussed to E_2.



P_1A_1 through P_1A_{32} to $TB_{17}A_1$ through $TB24A_{32}$ respectively
P_1B_1 through P_1B_{32} to $TB^1/_{17}B_1$ through $TB^8/_{24}B_{32}$ and bussed to E_1
P_1C_1 through P_1C_{32} to TB_1C_1 through TB_8C_{32} respectively.

P_2A_1 through P_2A_{32} to $TB_{25}A_1$ through $TB_{32}A_{32}$ respectively
P_2B_1 through P_2B_{32} to $TB^9/_5B_1$ through $TB^{16}/_{32}$ and bussed to E2
P_2C_1 through P_2C_{32} to TB_9C_1 through $TB_{16}C_{32}$ respectively.

MBT/F2.1-1

Figure 2.1-1. Wire List

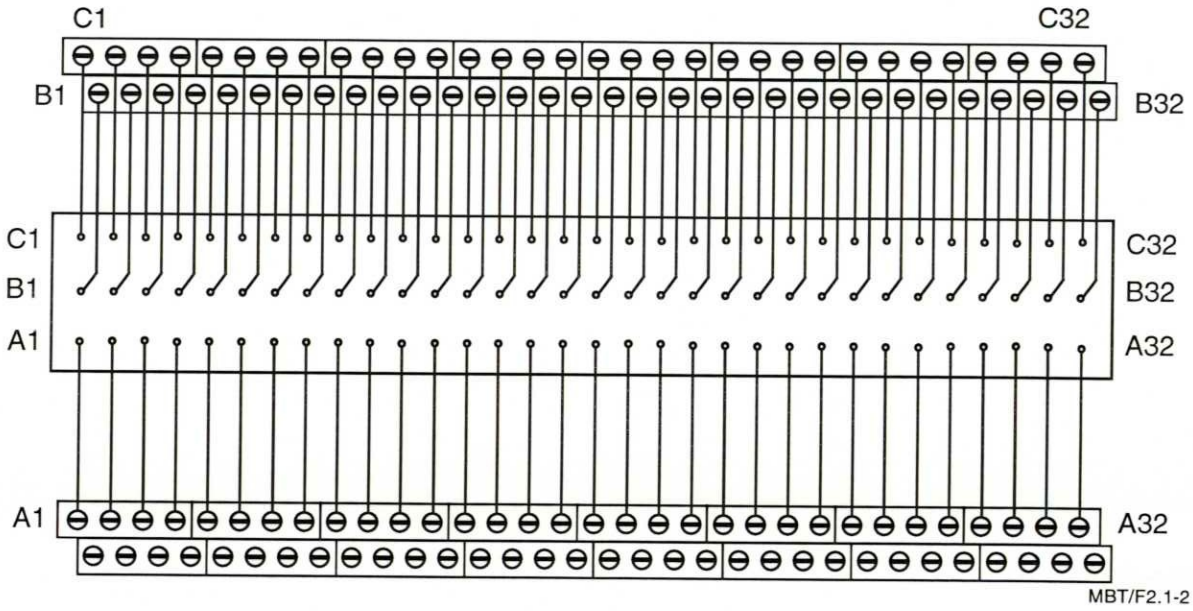


Figure 2.1-2. VMIACC-BT04 Wiring Diagram: 96 of 192 Circuits

SECTION 3

MAINTENANCE

3.1 MAINTENANCE

This section provides information relative to the care and maintenance of VMIC's products. If the products malfunction, verify the following:

a. Software
b. System configuration
c. Electrical connections
d. Jumper or configuration options
e. Boards are fully inserted into their proper connector location
f. Connector pins are clean and free from contamination
g. No components of adjacent boards are disturbed when inserting or removing the board from the chassis
h. Quality of cables and I/O connections

If the products must be returned, contact VMIC for a Return Material Authorization (RMA) Number. **This RMA Number must be obtained prior to any return.**

3.2 MAINTENANCE PRINTS

User-level repairs are not recommended. The appendix to this manual contains drawings and diagrams for reference purposes only.

APPENDIX A

ASSEMBLY DRAWING, PARTS LIST, AND SCHEMATICS