



## ***VMIC's Family of Adapter Boards***

### **INSTALLATION GUIDE**

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## RECORD OF REVISIONS

REVISION LETTER	DATE	PAGES INVOLVED	CHANGE NUMBER
A	12/17/96	Release	96-0867

## **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.

**W A R N I N G**

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



# SAFETY SYMBOLS

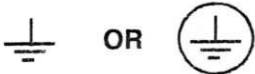
## GENERAL DEFINITIONS OF SAFETY SYMBOLS USED IN THIS MANUAL



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.



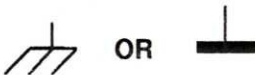
Indicates dangerous voltage (terminals fed from the interior by voltage exceeding 1000 volts are so marked).



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.



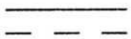
Low-noise or noiseless, clean ground (earth) terminal. Used for a signal common, as well as providing protection against electrical shock in case of a fault. Before operating the equipment, terminal marked with this symbol must be connected to ground in the manner described in the installation (operation)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



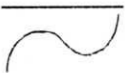
Frame or chassis terminal. A connection to the frame (chassis) of the equipment which normally includes all exposed metal structures.



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.



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.



# ***VMIC's Family of Adapter Boards***

## ***Installation Guide***

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### **IN THIS GUIDE:**

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### **INTRODUCTION**

This Installation Guide is used to assist in the assembly and cabling of VMIC's family of adapter boards. The following figures illustrate the connection of cables to the adapter boards.

## **ADAPTER BOARDS AND CABLE CONNECTIONS**

The following adapter boards are connected using the user supplied cables and the cables supplied by VMIC. See the following paragraphs on the cabling and installation of the adapter boards.

### **Cabling the 32-Channel D.I./D.O. Adapter Boards (Type A and B)**

Cable the two 32-channel D.I./D.O. adapter boards together using the supplied ribbon cable with three 96-pin DIN connectors. Install the cable on the P1 connector of both boards. See Figure 1-1 on page 1-3 for an illustration of the cabling procedures. Connect the user supplied cables to the J1 and J2 connectors on the front panel.

### **Cabling the Analog Output Boards (Type A and B)**

Cable the two analog output adapter boards together using the supplied 64-conductor twisted pair cable. Install the cable on the P1 connector of both boards. See Figure 1-2 on page 1-4 for an illustration of the cabling procedure. Connect the user supplied cables to the J1 and J2 connectors on the front panel.

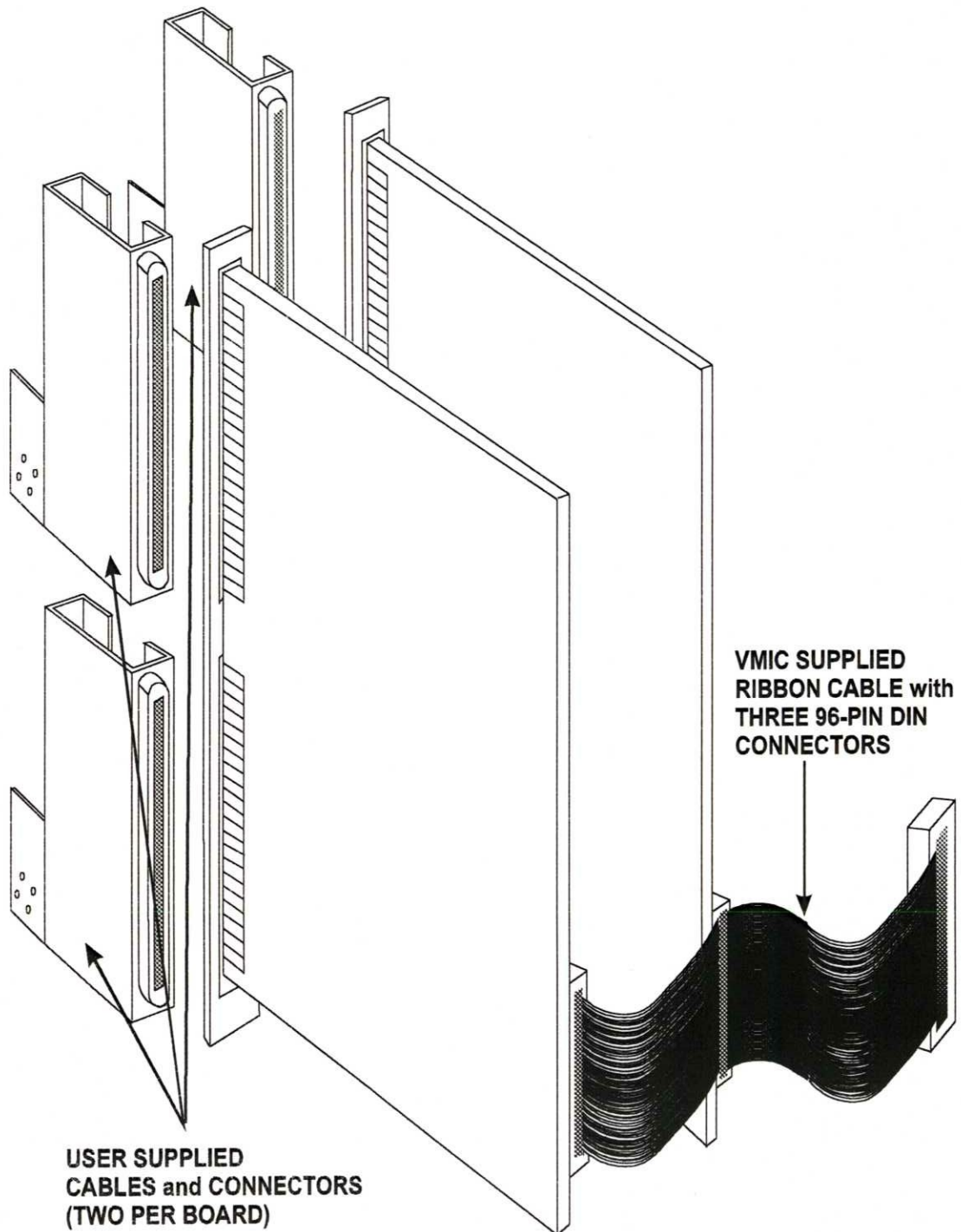
### **Cabling the Analog Input Board**

The analog input adapter board uses two 64-conductor twisted pair with 96-pin DIN connectors. Using the supplied ribbon cables connect the cables to the boards P1 and P2 connector as shown in Figure 1-3 on page 1-5. Connect the user supplied cables to the J1 and J2 connectors on the front panel.

### **Cabling the 64-Channel D.I./D.O. Adapter Board**

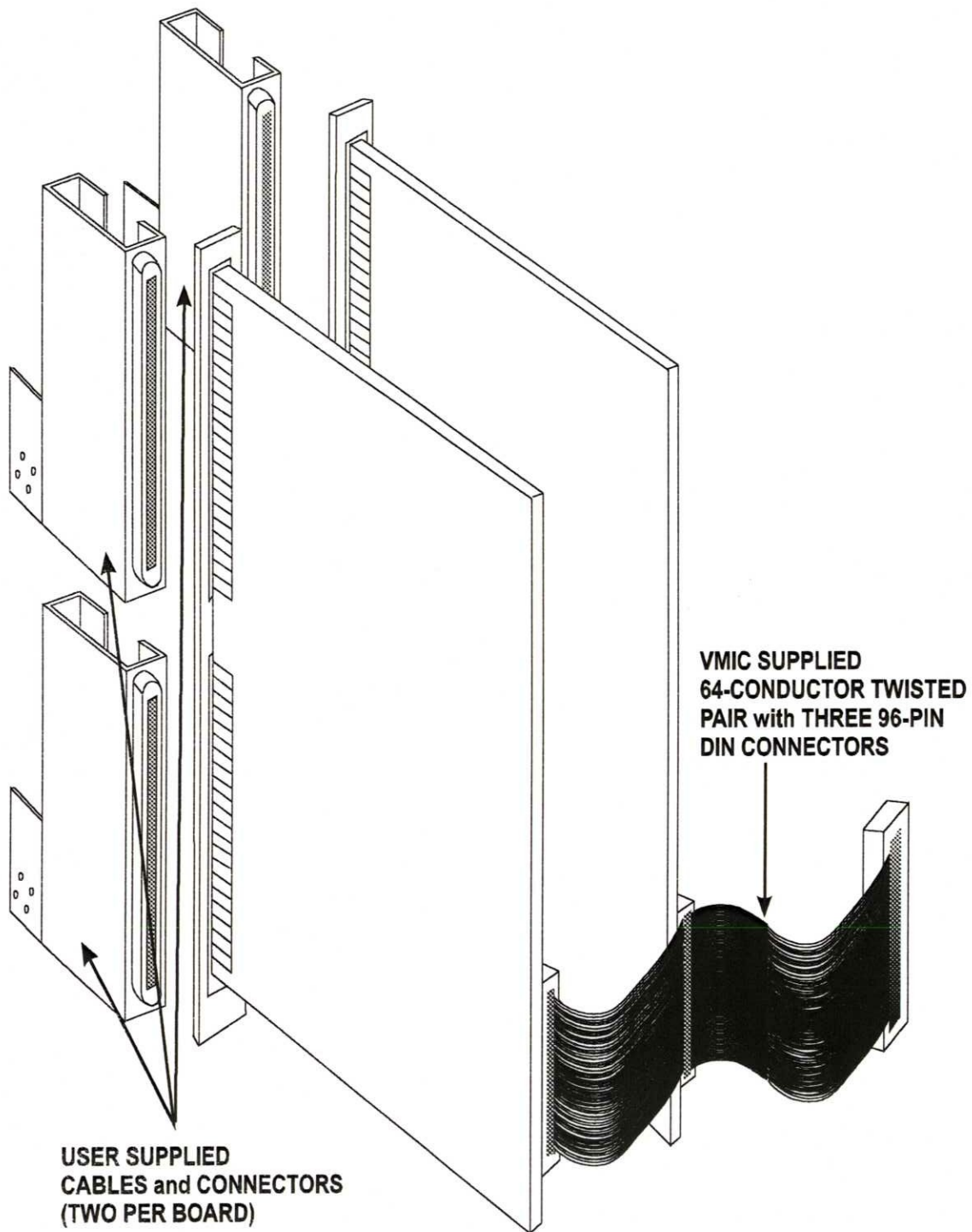
The 64-channel D.I./D.O adapter board is cabled using a 96-pin DIN connector cable installed on the P1 connector. Connect the user supplied cables to the J1 and J2 connectors on the front panel. See Figure 1-4 on page 1-6 for an illustration of this procedure.



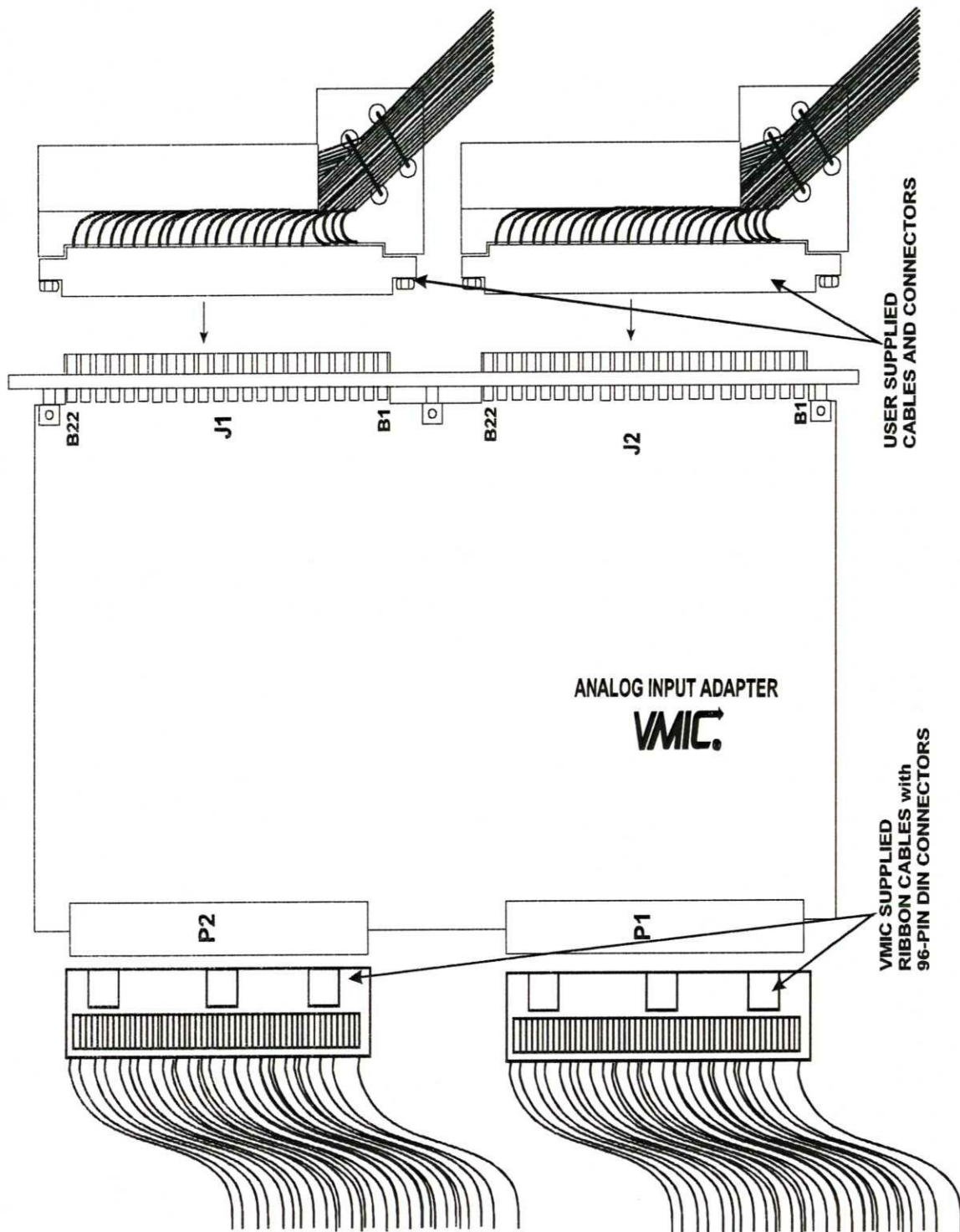


**Figure 1-1** Cabling the 32-Channel D.I./D.O. Adapter Boards (Type A and B)

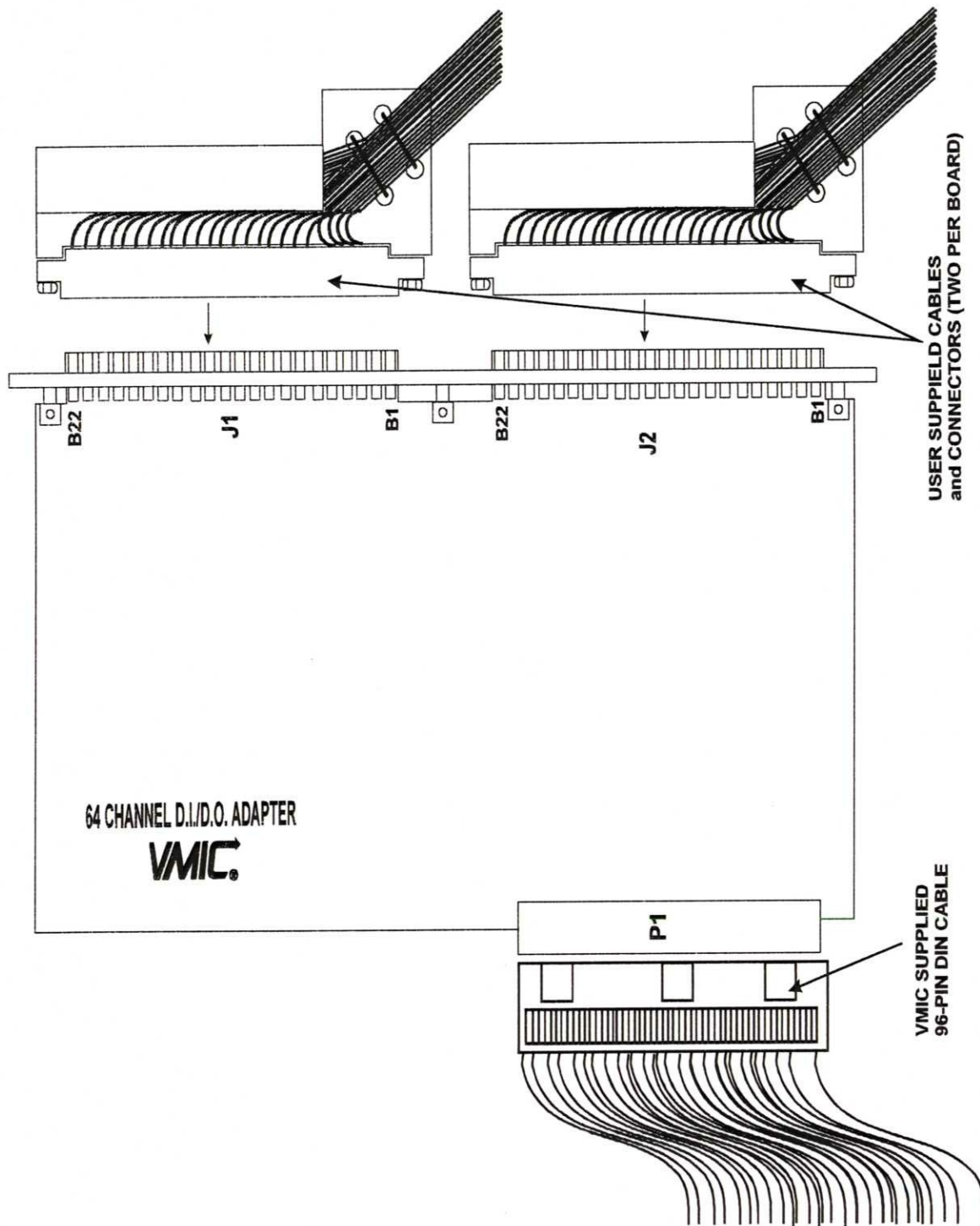




**Figure 1-2** Cabling the Analog Output Adapter Boards (Type A and B)



**Figure 1-3** Cabling the Analog Input Adapter Board



**Figure 1-4** Cabling the 64-Channel D.I./D.O. Adapter Board