

For use with Lancer JR. Type L1
General Purpose AC Inverter Drives.

MULTI ADAPTER MOD KIT
MODEL 92327 46S02718-0010

INTRODUCTION

IMPORTANT

Before installing this kit, a **TECHNICALLY QUALIFIED INDIVIDUAL**, who is familiar with this type of equipment and hazards involved, should **READ** this **ENTIRE INSTRUCTION SHEET**.

This kit may have been installed by the factory. However, certain steps can only be completed at the installation site. Therefore, review and then perform those steps which complete the installation process.

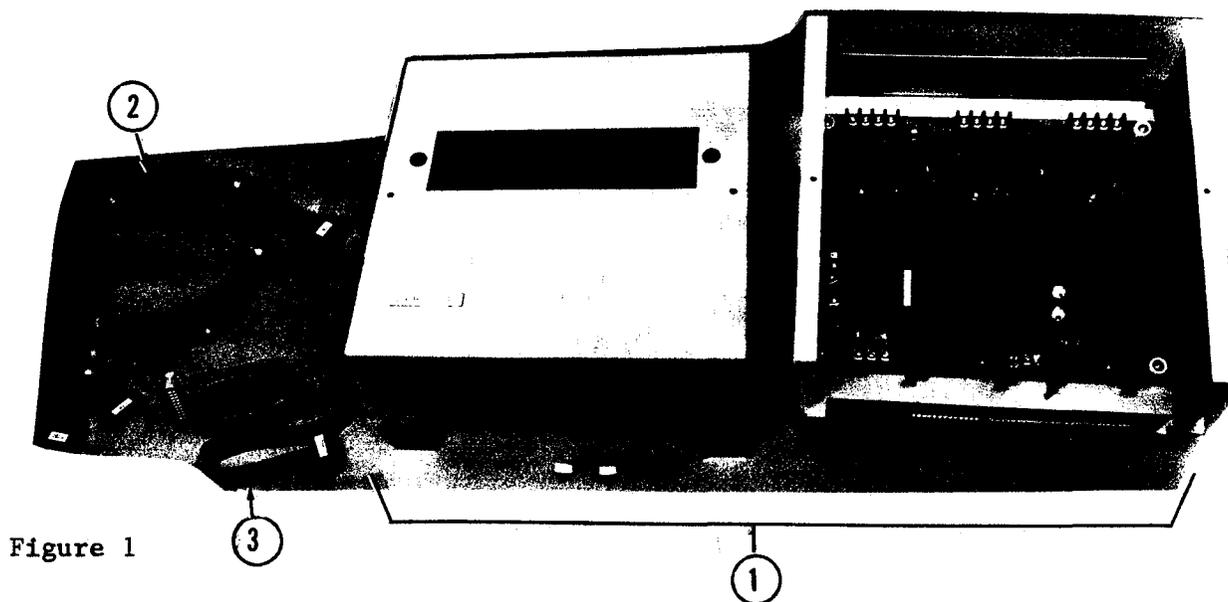


Figure 1

Table 1. KIT CONTENTS

ITEM	QTY	DESCRIPTION
1	1	Multi-Adapter Assembly (Enclosure with PCB)
2	1	Interconnect Harness, CN15 to CN13 & CN14, with Standoff (58" LG)
3	1	Ribbon Cable Assembly, CN16 to CN15 (20-1/2" LG)

CHANGE RECORD

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1 STD 2532-5/16/86

DESCRIPTION

This Louis Allis kit includes all the material described in Table 1 and illustrated in Figure 1. This mod kit can ONLY be installed in a Lancer JR Type L1 inverter drive containing a Main Control PCB part number ARNI-889 (REV D or above). Installation of this kit enables the user to add up to three modification kits to one inverter drive. If additional modifications are used, additional Multi Adapter kits can be interconnected to suit the application. Limitations exist as to the type of modification kits which may be combined in one inverter drive application. Table 2 identifies those mod kits which SHOULD NOT be combined. If in doubt, contact the nearest Louis Allis sales office for assistance.

INSTALLATION

A. Adding First Multi Adapter to Inverter

1. Disconnect all electrical power to drive.
2. Open or remove drive front cover.
3. Verify voltage has been disconnected by using a voltmeter to check for voltage at incoming power terminals.

WARNING

HAZARDOUS VOLTAGE CAN CAUSE
SEVERE INJURY OR DEATH.

LOCK ALL POWER SOURCES FEEDING
DRIVE IN "OFF" POSITION.

4. See Figure 2. Using a Philips screwdriver, remove and retain the two screws which secure the Operators Control Station (OCS) plate. Leave the wiring between the OCS plate and the Main Control PCB terminal strip intact, and allow the plate to drop below the PCB.

IMPORTANT

If a modification PCB is mounted to the Main Control PCB it MUST BE REMOVED to allow connection of the Multi Adapter. Disconnect wires from the PCB terminal strip. Remove and retain the screw and washer securing the PCB and pull the PCB free from connectors on the Main Control PCB. Set aside for later installation in the Multi Adapter Assembly.

5. Remove the hardware and standoff from the hold down clip on the interconnect harness.

NOTE

If an option PCB was removed from the inverter, proceed to Step 8.

6. See Figure 2. The Main Control PCB is held in place by (4) hinged locking PCB fasteners. Grasp the top of board in a convenient location and release from the top (2) fasteners by gently pulling the board forward while pushing upward on the locking portion of the fasteners.

7. See Figure 2. Install and secure the interconnect harness mounting hardware thru the 0.12 inch diameter hole designated "STD" on the Main Control PCB. Tighten the metal spacer onto the screw. Then snap the Main Control PCB back into place.

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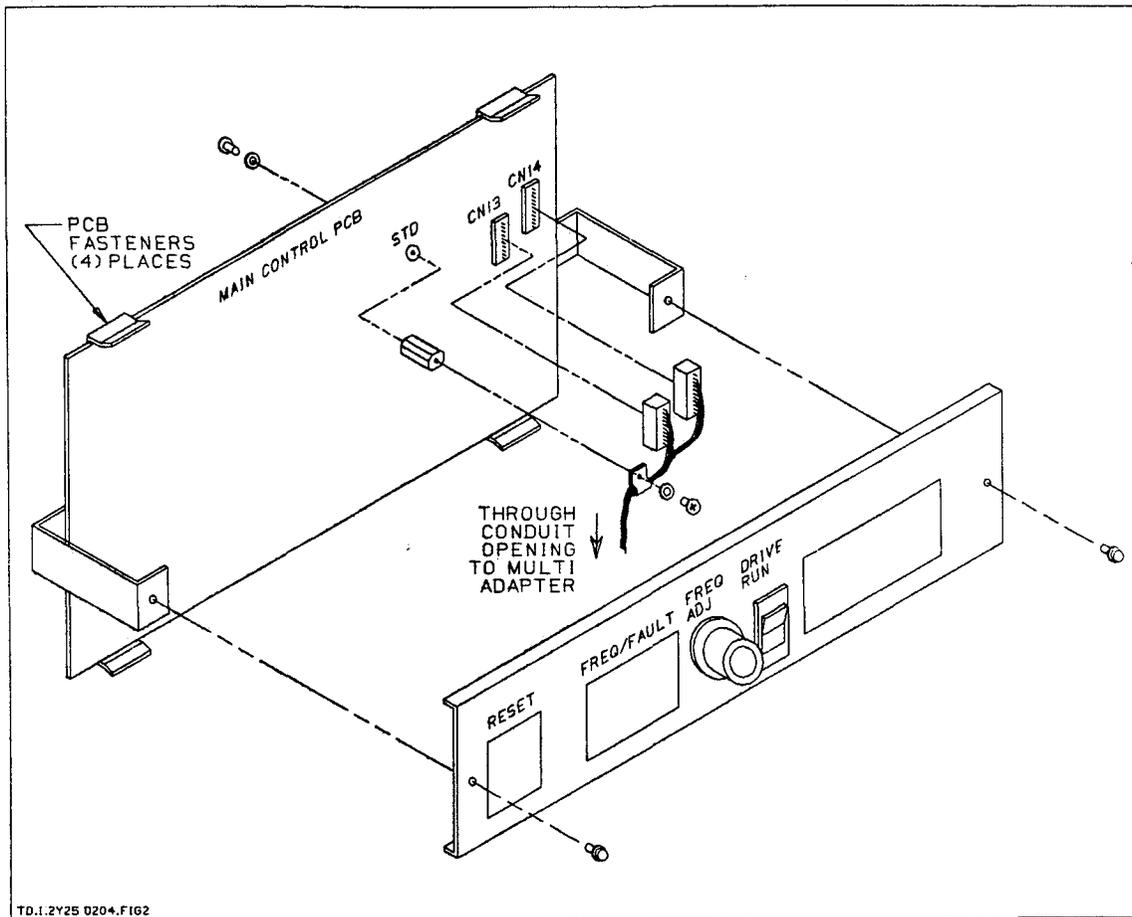


Figure 2

8. See Figure 2. Match female connectors CN13 and CN14 of the interconnect harness to male connectors CN13 and CN14 on the Main Control PCB and snap into place. Ensure that all 22 pins engage. Secure the plastic hold down clip on the interconnect harness to the metal spacer.

9. Route the interconnect harness through the inverter enclosure end plate hole cut-out.

NOTE

The Multi Adapter Assembly is designed for wall or panel mounting near the inverter. DO NOT MOUNT IT TO THE SIDE OF THE INVERTER ENCLOSURE. The final mounting position is restricted by the interconnect harness length and if additional Multi Adapter Kits are needed. (See INSTALLATION procedure B).

10. Determine mounting position of the Multi Adapter Assembly. Hold assembly in place to mark hardware locations. Drill and tap as required. Secure assembly with appropriate hardware.

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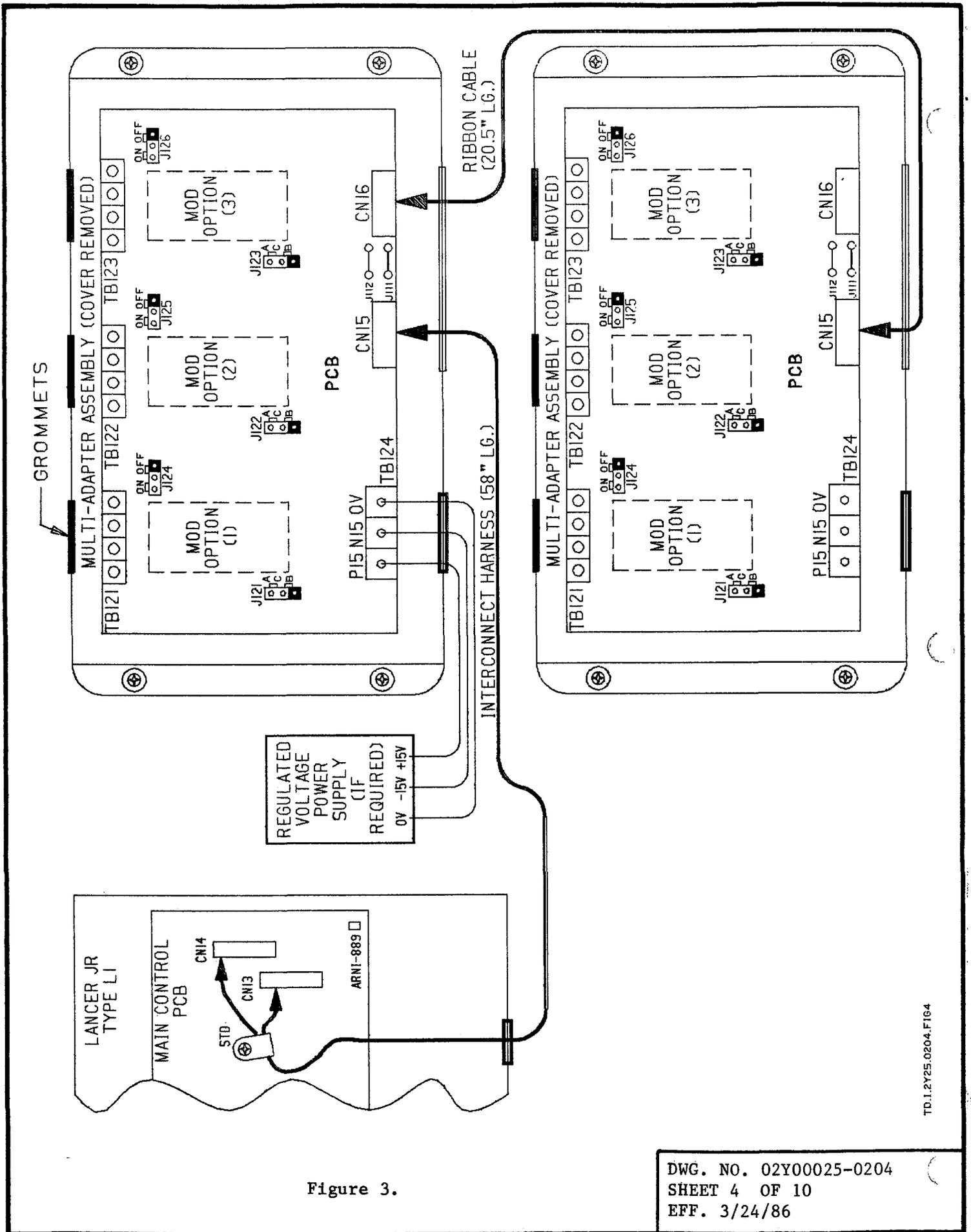


Figure 3.

11. Remove two thumbscrews and pull cover off of assembly. Set aside for later reinstallation.

12. See Figure 3. Route the other connector (CN15) of the interconnect harness through the rectangular cutout in the bottom of the Multi Adapter enclosure. Orient this polarized connector to match male connector CN15 on the PCB, and push into place so that retainer clips snap into position.

B. Adding Additional Multi Adapter

1. Disconnect all electrical power to drive.

2. Remove thumbscrews and pull cover off of existing Multi Adapter Assembly. Also remove cover from new Multi Adapter. Set covers and thumbscrews aside for later reinstallation.

IMPORTANT

The new Multi Adapter must be mounted directly above, below or beside the existing Multi Adapter due to the abbreviated length of the ribbon cable provided. If space limitations do not allow such positioning, a longer ribbon cable must be purchased or fabricated.

3. Determine mounting position of the new Multi Adapter Assembly. Hold assembly in place to mark hardware locations. Drill and tap as required. Secure assembly with appropriate hardware.

4. See Figure 3. Insert connector CN16 of the ribbon cable through the rectangular opening in the bottom of the existing Multi Adapter enclosure. Orient this polarized connector to match male connector CN16 on the PCB, and push into place so that retainer clips snap into position.

5. See Figure 3. Route the ribbon cable to the bottom of the new Multi Adapter enclosure and insert connector CN15 through the rectangular opening. Orient this polarized connector to match male connector CN15 on the PCB, and push into place so that retainer clips snap into position.

6. See Table 3. Set movable jumpers on the Multi Adapter PCB, according to which mod PCBs will be installed.

ADDING MODIFICATION PCB(s)

NOTE

The following must be calculated separately for EACH Multi Adapter Assembly.

1. See Table 4. Add the current requirements for each mod installed in the Multi Adapter. If the total exceeds the capacity of the Main Control PCB a regulated voltage power supply must be added to TB124 in the Multi Adapter, as shown in Figure 4. Also, the two wire jumpers, J111 and J112, on the Multi Adapter PCB must be cut (use side cutting pliers).

2. Install the Mod Kit PCB into an available position on the Multi Adapter assembly according to it's 2Y00025 numbered instruction sheet.

3. Wiring requirements between the mod PCB and the inverter will be identified in it's 2Y00025 numbered instruction sheet. Also identified will be required wiring between the inverter and the Multi Adapter Assembly as well as any other external equipments.

4. After completing all wiring requirements and adjustments identified in the mod PCB(s) 2Y00025 numbered instruction sheets reinstall the Multi Adapter cover.

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5. Reinstall the inverter OCS plate and then the front cover.

6. This completes the installation of the Multi Adapter Mod and any other inverter mod kits.

7. Place all instruction sheets immediately behind the inverter instruction manual front cover.

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Table 2. MULTIPLE MODIFICATION KIT COMBINATIONS

LEGEND	
○	COMPATIBLE
—	DO NOT USE TOGETHER

SPEED FEEDBACK CONTROL
 SET POINT CONTROL (P.I.)
 AUTO RESTART
 LOW SPEED DETECTOR *
 JOG OPERATION
 PULSE OUTPUT OF FREQUENCY
 GROUND FAULT DETECTOR
 VOLTAGE FEEDBACK CONTROL
 RUN RELAY
 3-15 PSI FOLLOWER
 HANDY OVERLOAD DETECTOR
 MOTOR OVERLOAD DETECTOR
 SF (SLIP FREQUENCY) CONTROL
 JOG/RUN RELAY
 THREAD/RUN RELAY
 4-20MA SIGNAL TRANSMITTER

SPEED FEEDBACK CONTROL	—	—	○	○	—	○	○	—	○	—	○	○	—	○	○	○
SET POINT CONTROL (P.I.) (MODEL 92294)	—	—	○	○	—	○	○	—	○	—	—	—	—	—	○	○
AUTO RESTART	○	○	—	○	○	○	○	○	○	○	○	○	○	○	○	○
LOW SPEED DETECTOR *(92296)	○	○	○	—	○	○	○	○	○	○	○	○	○	○	○	○
JOG OPERATION	—	—	○	○	—	○	○	○	○	○	○	○	○	—	—	○
PULSE OUTPUT OF FREQUENCY	○	○	○	○	○	—	○	○	○	○	○	○	○	—	○	○
GROUND FAULT DETECTOR	○	○	○	○	○	○	—	○	○	○	○	○	○	○	○	○
VOLTAGE FEEDBACK CONTROL	—	—	○	○	○	○	○	—	○	—	○	○	—	○	○	○
RUN RELAY (MODEL 92259)	○	○	○	○	○	○	○	○	—	○	○	○	○	—	—	○
3-15 PSI FOLLOWER (MODEL 92262)	—	—	○	○	○	○	○	—	○	—	○	○	—	○	○	○
HANDY OVERLOAD DETECTOR	—	—	○	○	○	○	○	○	○	○	—	—	○	○	○	○
MOTOR OVERLOAD DETECTOR	—	—	○	○	○	○	○	○	○	○	—	—	○	○	○	○
SF (SLIP FREQUENCY) CONTROL	—	—	○	○	—	—	○	—	○	—	○	○	—	○	○	○
JOG/RUN RELAY (MODEL 92260)	○	○	○	○	—	○	○	○	—	○	○	○	○	—	—	○
THREAD/RUN RELAY (MODEL 92261)	○	○	○	○	—	○	○	○	—	○	○	○	○	—	—	○
4-20MA SIGNAL TRANSMITTER (MODEL 92331)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—

* LOW SPEED DETECTOR USED WITH ANY OTHER OPTION PCB REQUIRES AN EXTERNAL -15V SUPPLY.

TD.J.2Y25.0204.TABLE2

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Table 3. MULTI ADAPTER JUMPER POSITIONS

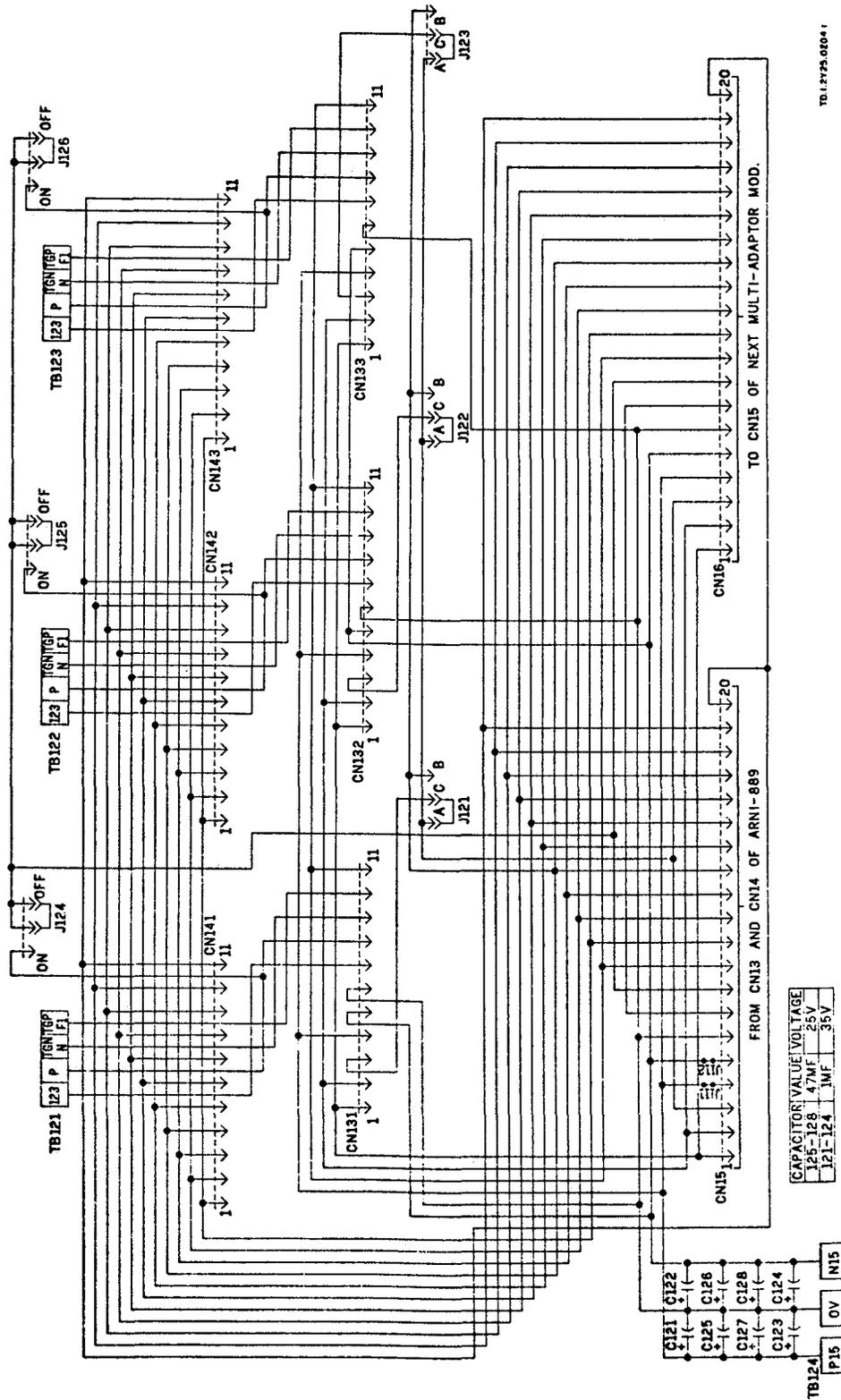
MODIFICATION KIT	J124, J125 OR J126	J121, J122 OR J123
Speed Feedback Control	OFF	A-C
SF (Slip Frequency) Control	ON	A-C
Setpoint Control (P.I.)	OFF	A-C
Auto Restart	OFF	A-C
Low Speed Detector	OFF	A-C
Jog Operation	OFF	A-C
Motor Overload Detector	OFF	A-C
Handy Overload Detector	OFF	A-C
Ground Fault Detector	OFF	A-C
Pulse Output of Frequency	ON	A-C
Voltage Feedback Control	OFF	A-C
3-15 PSIG Following	OFF	A-C
Jog/Run Relay	OFF	A-C
Thread/Run Relay	OFF	A-C
4-20mA Signal Transmitter	OFF	A-C

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Table 4. MOD KIT PCB CURRENT REQUIREMENTS

MODIFICATION KIT	MOD KIT PCB CURRENT REQUIREMENTS AT TERMINAL (mA)				
	P5	N15	P15 (+)	P24	SUB-TOTAL
Speed Feedback Control	-	3.5	1.5	-	_____
Setpoint Control (P.I.)	-	3.5	1.5	-	_____
Auto Restart	-	3.0	29.0	-	_____
Low Speed Detector	-	12.0	7.5	17.5	_____
Jog Operation	-	7.5	12.0	2.5	_____
Pulse Output of Frequency	-	10.0	10.0	-	_____
Ground Fault Detector	-	10.0	10.0	-	_____
Voltage Feedback Control	-	4.5	5.0	-	_____
Jog/Run Relay	-	-	5.0	25.0	_____
Thread/Run Relay	-	-	5.0	25.0	_____
3-15 PSIG Follower	-	-	20.0	-	_____
Handy Overload Detector	-	10.0	10.0	-	_____
Motor Overload Detector	-	10.0	10.0	-	_____
SF (Slip Frequency) Control	-	3.5	1.5	-	_____
4-20mA Signal Transmitter	-	3.0	3.0	20.0	_____
Totals:	_____ mA	_____ mA			_____ mA
Main Control PCB	47 mA	12.5 mA			62 mA

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