

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

THREAD/RUN RELAY MOD KIT

MODEL 92261 46S02636-0030

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

IMPORTANT

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.

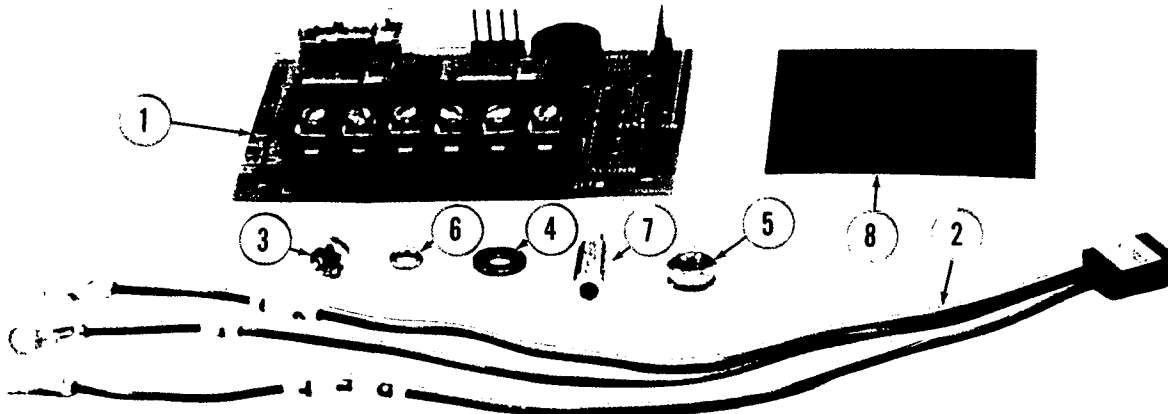


FIGURE 1.

TABLE 1. KIT CONTENTS

ITEM	QTY	DESCRIPTION	PART NO.
1	1	Thread/Run Modification PCB	46S02615-0130
2	1	Cable Assembly	46S02616-0120
3	1	P.H. Machine Screw 6-32 x 0.25 Lg.	05P00306-0503
4	1	#6 Flat Washer	05P00301-0003
5	1	6-32 KEPS Nut	05P00300-5008
6	1	#6 Split Lock Washer	05P00301-1003
7	1	Hex Spacer with 6-32 Male & Female Ends	05P00065-0018
8	1	Pot/Switch Cover Plate	45T00277-0000

CHANGE RECORD

2	STD-2612	9/16/86			
/	STOR2522	4/8/86			

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DESCRIPTION

This Louis Allis kit includes all the material described in Table 1 and illustrated in Figure 1.

The relay modification PCB is designed for installation on the Main Control PCB of a Lancer JR. Type L1 inverter drive. When installed, this kit allows the drive to respond to a remote five wire 24 VDC THREAD-RUN-STOP command and remote speed reference. A pot which is located on the modification PCB, allows thread speed to be adjusted from 0 to approximately 80% of Run Speed.

INSTALLATION

IMPORTANT

a. If this mod kit is to be installed in the inverter, proceed to install according to these installation instructions.

b. If this mod kit is to be installed in a Multi Adapter mod assembly, FIRST complete installation steps stated in 02Y00025-0204. Then continue with these installation instructions.

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. Remove the two Phillips screws which secure the existing Operators Control Station (OCS) plate. Also disconnect the five wires which connect to the Main Control PCB terminal strip.

5. See Figure 2. Remove and discard the FREQ. ADJ. pot and knob and the DRIVE RUN/STOP switch from the OCS plate.

6. Remove the protective covering from the adhesive side of the cover plate supplied with this kit, and apply it to the OCS plate such that the existing holes and legends of the removed pot and switch are completely covered.

7. If installed in inverter:

a. 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.

b. See Figure 2. Insert the male end of the hexagonal metal spacer the 0.12 inch diameter hole designated "STD" on the Main Control PCB. Pivot the top portion of the board out and away from the chassis far enough to allow the 6-32 KEPS nut to be placed behind the PCB, and fastened to the metal spacer. Turn the metal spacer finger tight. Then snap the Main Control PCB back into place.

c. See Figure 2. Note that there is an 11-pin female connector (13CONN) mounted on the back side of the relay modification PCB. Align this connector with the male connector CN13 on the Main Control PCB. Ensure that all 11 pins are engaged and then snap the board into place. Use the 6-32 Phillips screw, lock washer, and flat washer to secure the board to the metal spacer.

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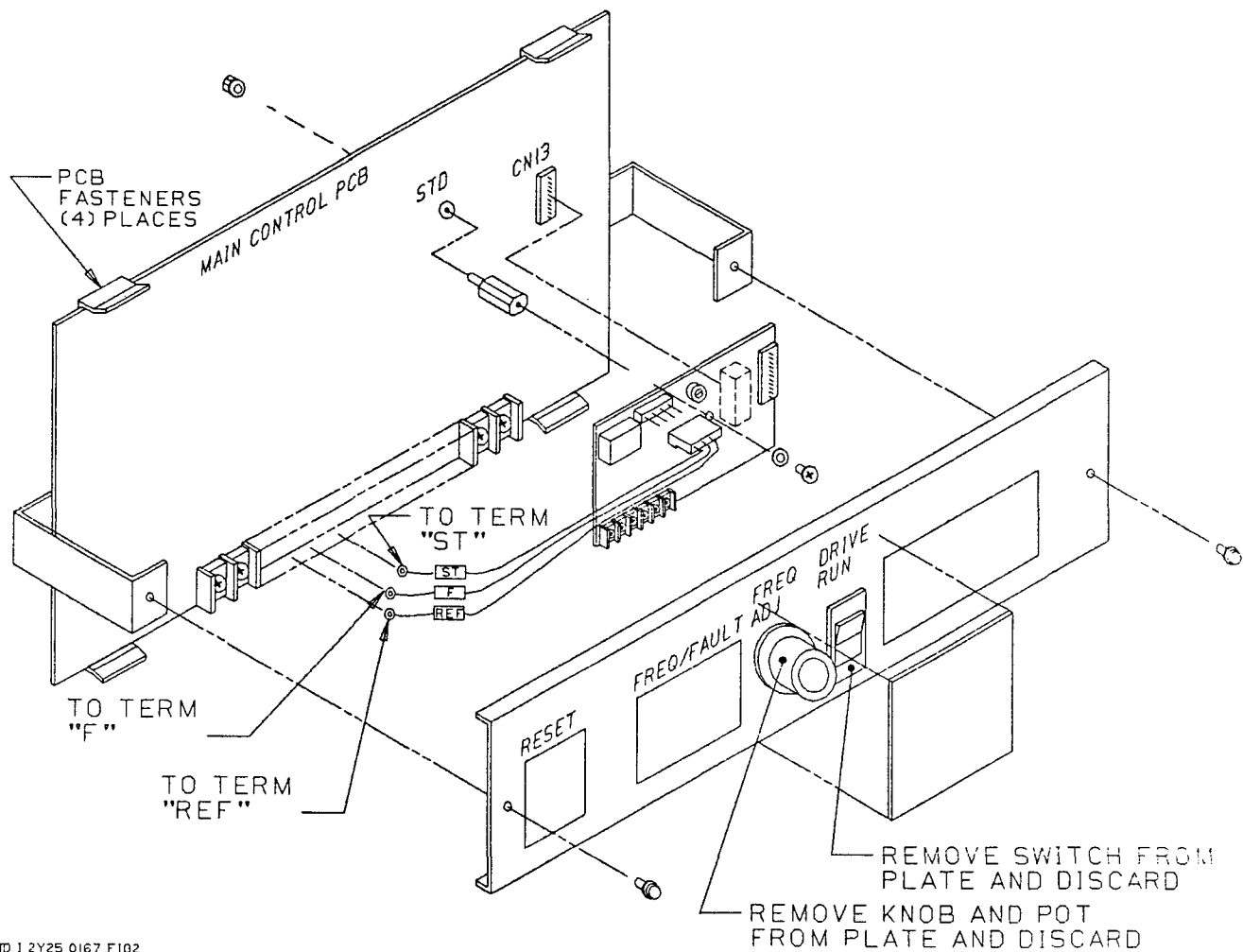


FIGURE 2.

d. See Figure 2. Ensure the pins labeled 1 align up with each other, and connect the 4-pin ICONN female connector of the cable assembly to the male plug ICONN on the modification PCB.

e. See Figure 2. Connect ring lug ends of the cable assembly tagged ST, REF and F to the respective terminals on the Main Control PCB.

8. If installed in Multi Adapter:

NOTE

For this installation, the metal spacer and hardware provided in the mod kit will not be used.

a. At the option position where the board will be installed in the Multi Adapter, remove the hardware from the end of the metal spacer.

b. Note that there is an 11-pin female connector (13CONN) on the back side of the relay PCB. Position the board in the option position so that this connector is aligned with male pin connector CN13() on the Multi Adapter PCB. Ensure that all 11 pins engage and then snap into place. Use the hardware to secure the board to the metal spacer.

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c. See Figure 3. Ensure that pins labeled 1 align with each other and connect the 4-pin 1CONN female connector of the cable assembly to male plug 1CONN on the modification PCB.

d. See Figure 3. Connect ring lug ends of the cable assembly tagged ST, F and REF to terminals TGN, TGF and 123, respectively, of terminal board TB12() on the Multi Adapter PCB.

e. See Figure 3. Connect #22 AWG wires to terminals TGN, TGF and 123 of TB12(). Feed the wires through the grommet of the Multi Adapter enclosure, route them to the inverter and connect to terminals ST, F and REF on the Main Control PCB.

WIRING CONNECTIONS

9. See Figure 4. Make connections between the drive and remote OCS as follows:

a. Construct a three-conductor cable per NOTE 1. Tag each end of the wires 64, 65, 66 and connect per Table 2.

b. Construct a five-conductor cable per NOTE 1. Tag each end of the wires 16, 17, 18, 19, 20 and connect per Table 3.

TABLE 2.

FROM	WIRE #	TO
Modification PCB 1TB-5	64	High Side of SPEED Pot
Modification PCB 1TB-6	65	Wiper of SPEED Pot
Main Control PCB Terminal OV	66	Low Side of SPEED Pot

TABLE 3.

FROM	WIRE #	TO
Main Control PCB Terminal FLC	16	One Contact of STOP PB
Modification PCB 1TB-1	17	Normally Open Contact of THREAD PB (Also add jumper as shown in Figure 4)
Modification PCB 1TB-2	18	Normally Closed Contact of THREAD PB (Also add jumper as shown in Figure 4)
Modification PCB 1TB-4	19	One Contact of RUN PB
Modification PCB 1TB-3	20	THREAD PB Normally Closed Contact Which is Opposite Wire #18

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NOTE 1:

Use twisted three or five conductor wire rated 300 volts and twisted two to three turns per inch: #22 AWG for distances of less than 150 feet that meets local and national code requirements, or #16 AWG for distances of more than 150 feet and less than 600 feet.

10. Check the inverter instruction manual and other modification instruction sheets to ensure that all wiring required for proper operations has been completed.

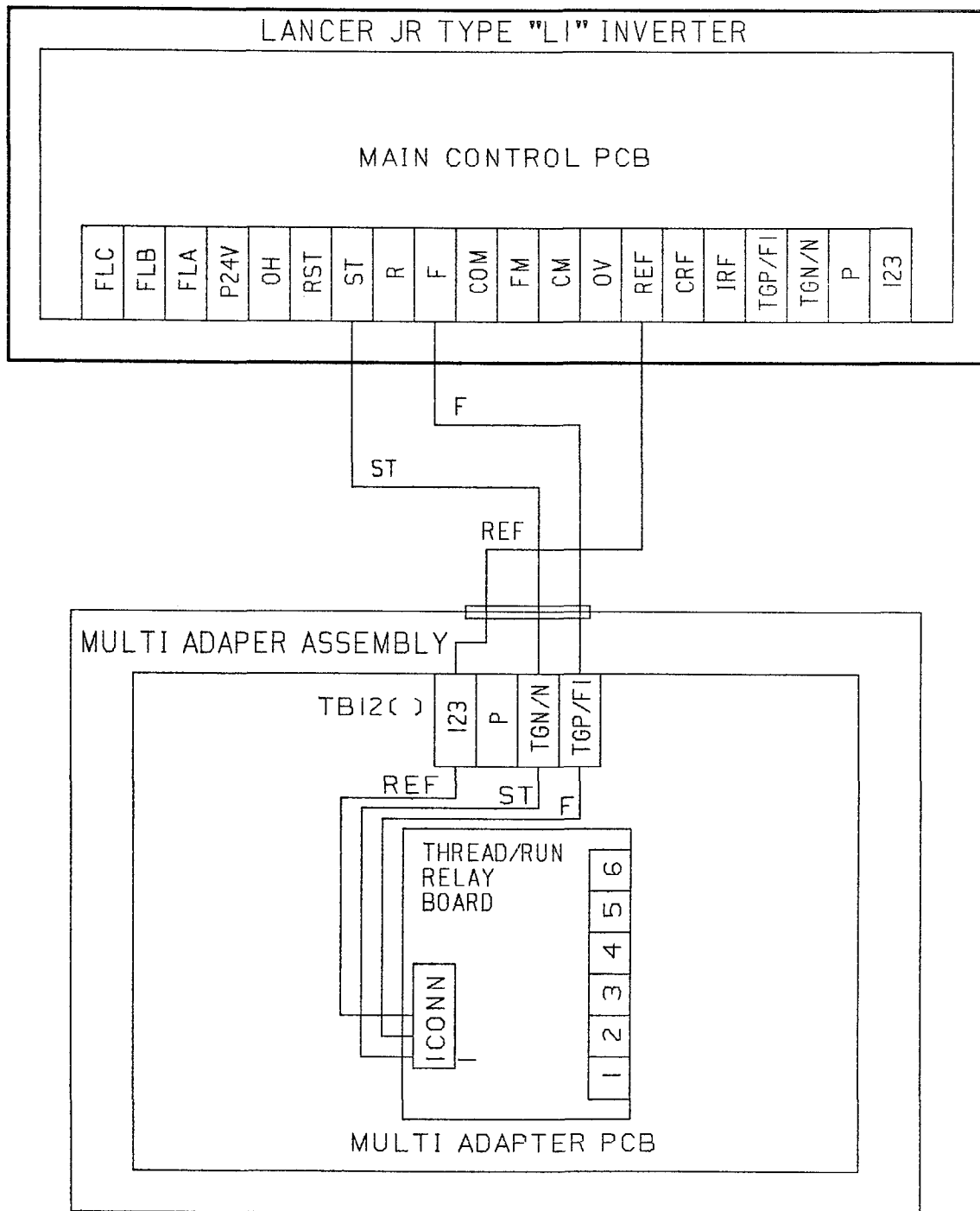
11. Reinstall the modified OCS plate.

12. Replace and secure all enclosure covers.

13. Place this instruction sheet immediately behind the front cover of the inverter instruction manual.

This completes the installation of the modification kit.

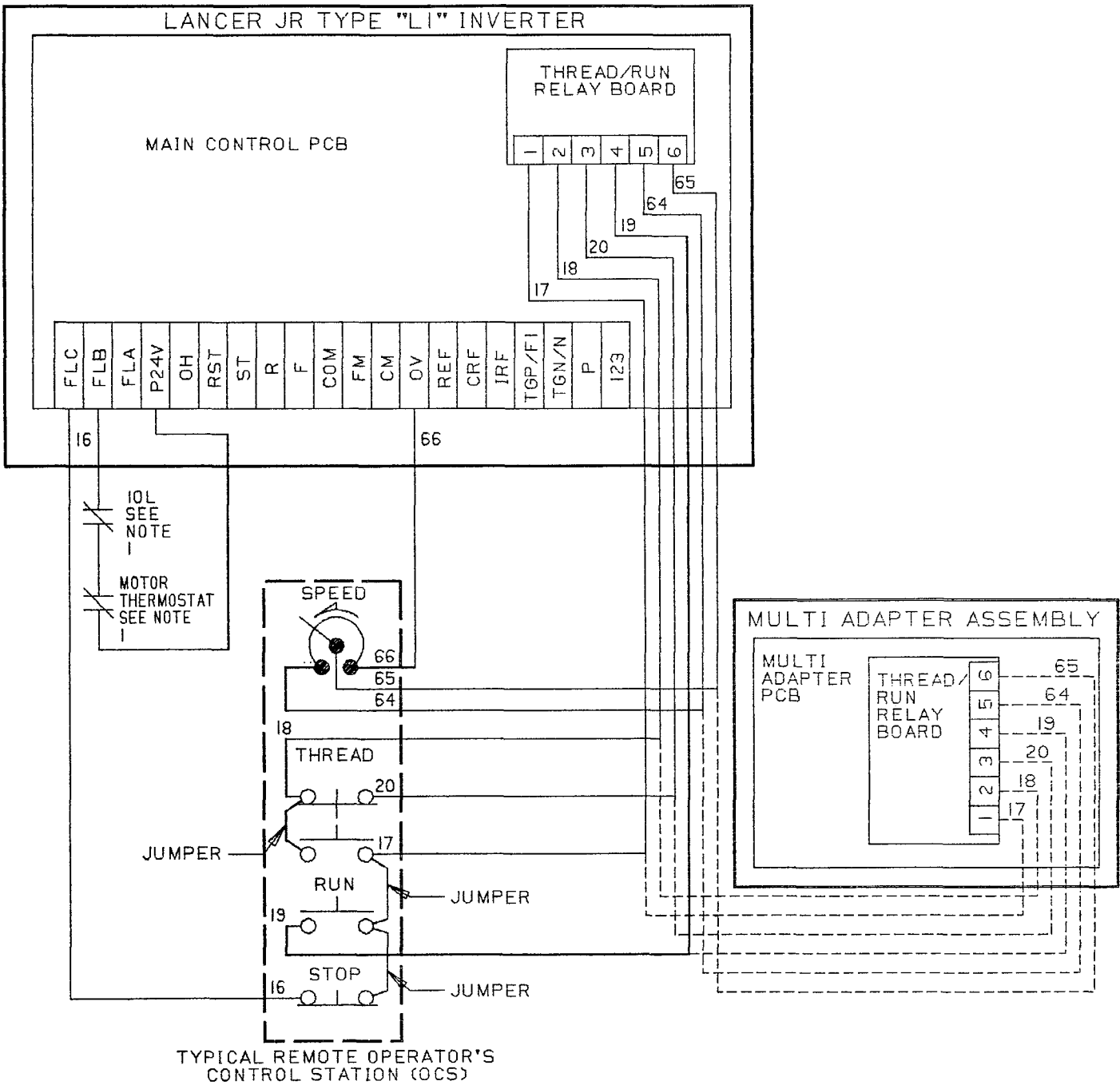
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FIGURE 3.

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NOTE:
 1. CONTINUITY OF THE CIRCUIT BETWEEN TERMINALS (P24V) AND (FLB) MUST BE MAINTAINED FOR PROPER DRIVE OPERATION. ADD APPROPRIATE JUMPERS TO REPLACE IOL OR THE MOTOR THERMOSTAT IF THESE DEVICES ARE NOT USED.

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FIGURE 4.

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