LouisAllis®
A Division of MagneTek, Inc

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

3-15 PSIG FOLLOWER MOD KIT

MODEL 92262 46S02669-0010

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.

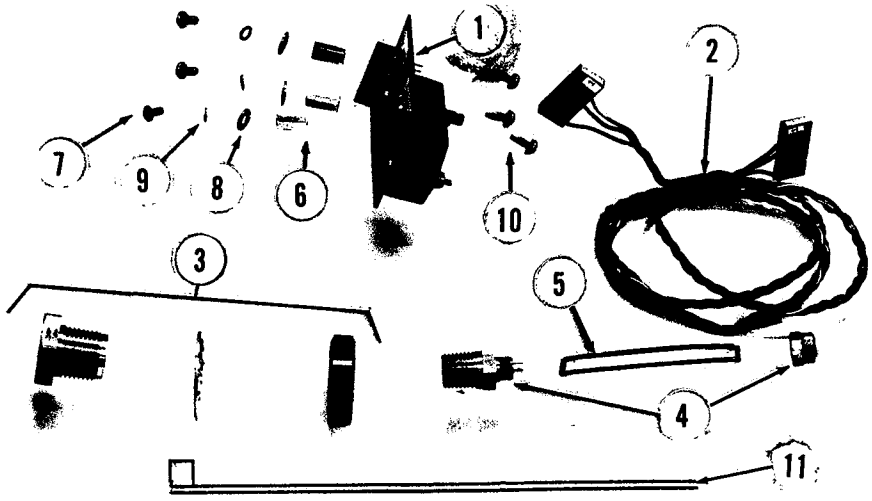


FIGURE 1.

TABLE 1. KIT CONTENTS

ITEM	QTY	DESCRIPTION	PART NO.
1	1	Pressure Transducer PCB	46S02667-0010
2	1	Connector Cable Assembly	46S02668-0010
3	1	Brass Bulk Head Adapter (1/4"-18NPTF)**	05P00070-0147
4	1	Brass Male Tube Fitting Connector	05P00070-0120
5	1	1/4" O.D. PVC Tubing (1 foot)	D.E.P. 131.2.97
6	3	1/4" x 1/2" LG. Hex Spacer	05P00065-0011
7	3	P.H. Machine Screw 6-32 x 0.25 Lg.	05P00306-0503
8	3	#6 Flat Washer	05P00301-0003
9	3	#6 Split Lock Washer	05P00301-1003
10	3	P.H. Machine Screw with Star Washer 6-32 x 3/8" Lg.	05P00307-0505
11	1	TY-RAP 8"	

** User must provide connector between adapter and air supply.

CHANGE RECORD					DWG. NO. 02Y00025-0169
1 STD 2512 4/22/86					SHEET 1 OF 6
2 STD-2774 5-2-97	RRE				EFF. 6/85 (C)

DESCRIPTION

This Louis Allis kit includes all the material described in Table 1 and illustrated in Figure 1. It can only be installed in a Lancer JR. Type L1 inverter drive which has a bottom end cover added to its enclosure. Your nearest Louis Allis district office will provide assistance in obtaining the enclosure kit, if required.

When installed, this kit allows the drive to accept a 3-15PSIG air signal, converting it to a variable DC voltage which is used as the speed signal in the Auto mode of operation. This modification is compatible for use with the internal Operator Control Station (OCS) plate devices as well as with a drive modified with one of the Louis Allis remote command Run Relay mod kits.

INSTALLATION

IMPORTANT

a. This mod kit can be installed inside an inverter which DOES NOT have a Multi Adapter in use. It can be installed alone OR in combination with one of the remote Run Relay mod kits, Model 92259, 92260 or 92261.

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.

NOTE

If this mod kit is being installed in the inverter in combination with a Run Relay mod kit, FIRST install and wire the relay modification board according to its instruction sheet. Then proceed to step 4 of these 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. If installed in inverter:

a. Remove bottom end cover from inverter enclosure; retain hardware for reinstallation.

b. See Figure 2. Layout and drill (4) holes in the bottom end cover.

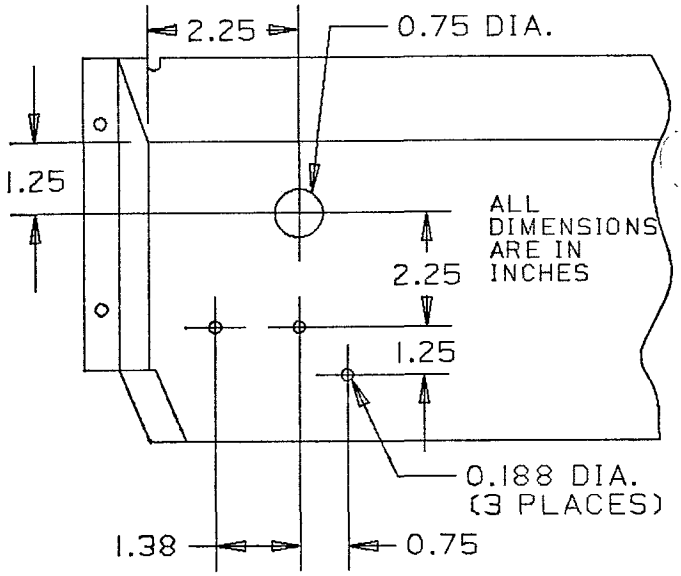


FIGURE 2.

c. See Figure 3. Assemble bulkhead adapter through bottom end cover. While manually holding the outside of the bulkhead adapter, tighten the 1-1/8" nut with a wrench until star lockwasher is compressed against inside of bottom end cover.

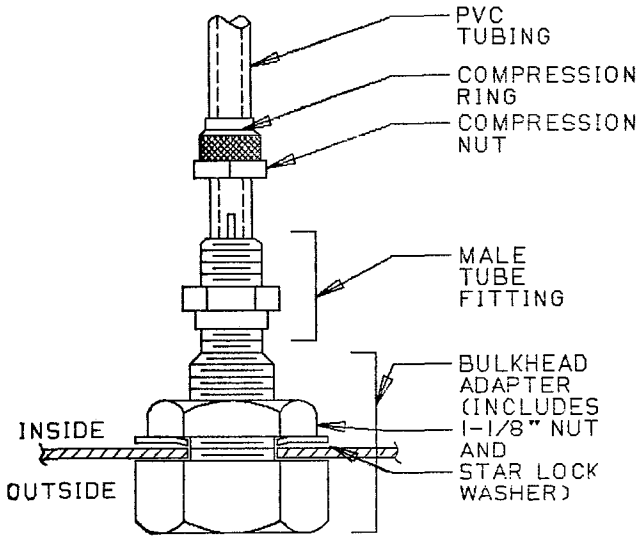


Figure 3.

d. Thread the male tube fitting connector into the female thread of the bulkhead adapter until finger tight. Use a 9/16" open end wrench and tighten an additional one-quarter turn.

e. Remove the 7/16" compression nut from the male tube fitting connector. Insert the 1/4" PVC tubing thru the compression nut, then push tubing into fitting as far as possible.

f. Tighten the compression nut finger tight onto the male tube fitting connector. Then use a 7/16" open end wrench and tighten an additional one-half turn.

g. See Figure 4. Assemble and finger tighten, the Phillips head machine screws with captive star lock-washer and hex spacers to the PCB.

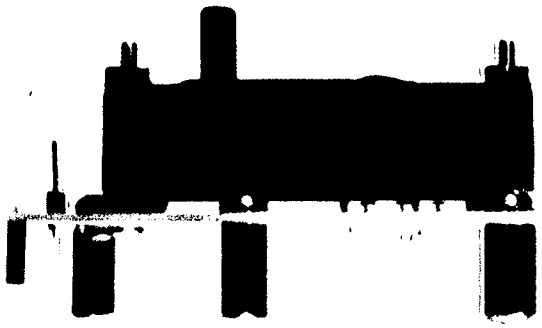


Figure 4.

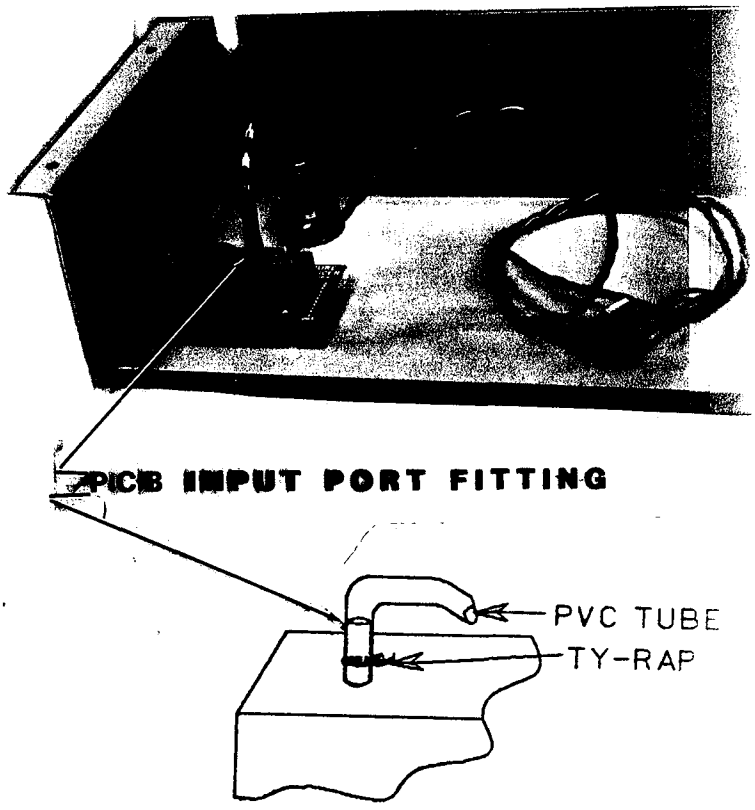


Figure 5.

h. See Figure 5. Secure each hex spacer to bottom end cover with Phillips head machine screws, lockwashers and flatwasher. Tighten each screw until lockwasher is fully compressed.

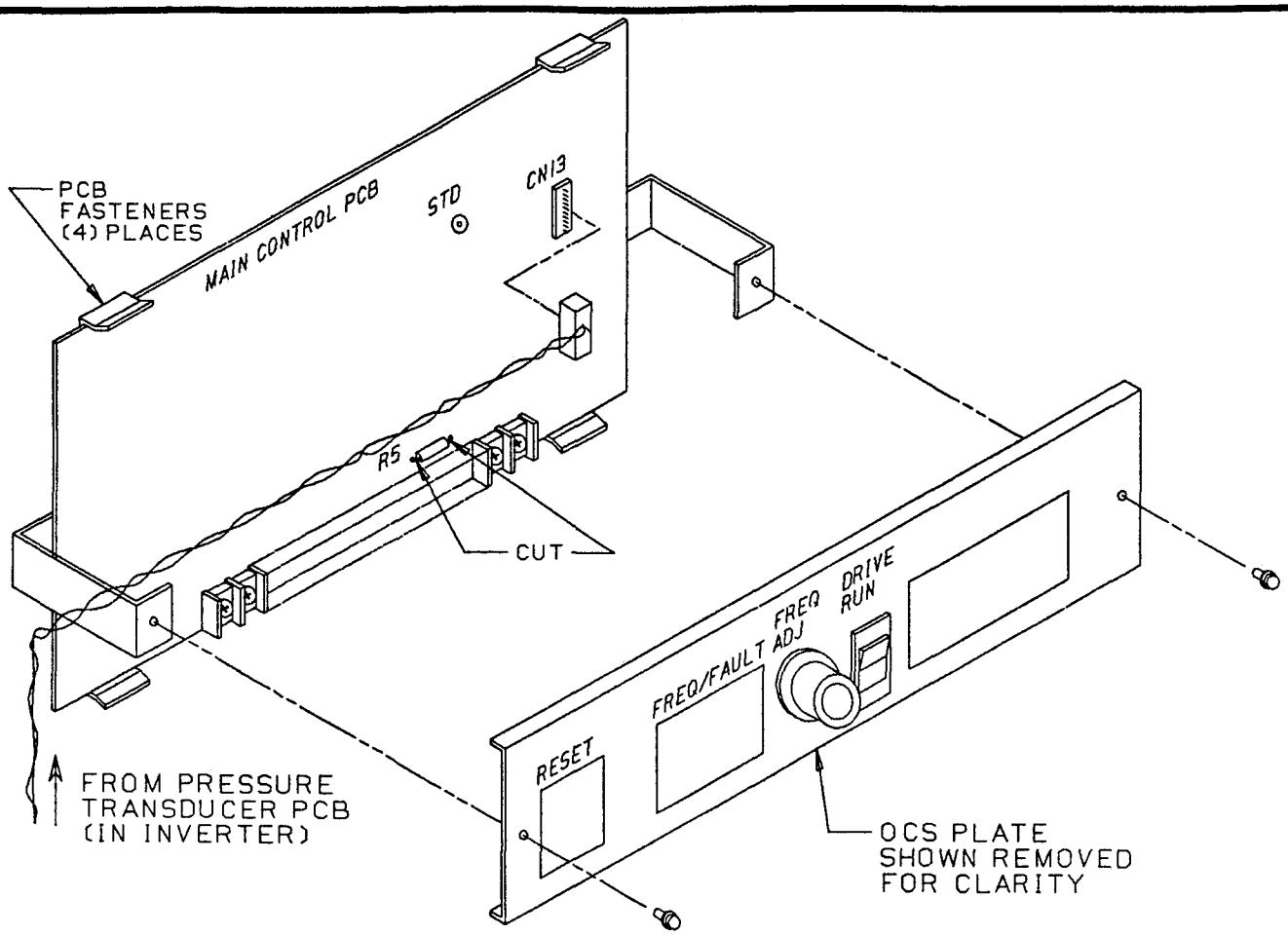
i. See Figure 3. Squarely cut the PVC tubing such that it extends 6 inches from the 7/16" compression nut.

j. See Figure 5. Firmly push the cut end of the PVC tubing onto the PCB input port fitting (P2). Secure PVC tubing using supplied TY-Rap.

NOTE

If "dry" tubing will not slip onto fitting, it may be lubricated with a SMALL amount of water or SILICONE OIL. If used, it MUST NOT be allowed to ENTER the input port hole.

k. Reinstall bottom end cover using existing hardware.



TD.I.2Y25 0169.FIG6

FIGURE 6.

NOTE

In steps 1 and m, ensure that the female pin labeled (1) aligns with the male pin labeled (1) and all pins engage.

1. See Figure 5. Connect one 11-pin female connector of the connector cable to the 11-pin male connector (CN13) on the Transducer PCB.

m. See Figure 6. Route the cable as shown and connect the other end to male connector CN13 on the Main Control PCB. If a Run Relay modification PCB is in place, connect the cable to male connector 13CONN on that PCB.

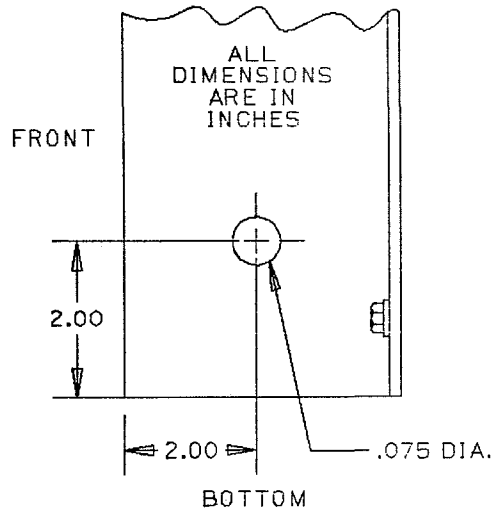
n. Proceed to step 6.

5. If installed in Multi Adapter:

NOTE

For this installation, the spacers, screws, washers and connector cable provided in the mod kit will not be used.

a. See Figure 7. On side panel of Multi Adapter enclosure which is closer to option position where Pressure Transducer PCB will be installed (for position #2, use left side), layout and drill (1) hole.



NOTE: RIGHT SIDE PANEL SHOWN

TD.I.2Y25.0169.FIG7

Figure 7.

b. See Figure 3. Assemble bulkhead adapter through side panel. While manually holding the outside of the bulkhead adapter, tighten the 1-1/8" nut with a wrench until star washer is compressed against inside of side panel.

c. Thread the male tube fitting connector into the female thread of the bulkhead adapter until finger tight. Then use a 9/16" open end wrench and tighten an additional one-quarter turn.

d. Remove the 7/16" compression nut from the male tube fitting connector. Insert the 1/4" PVC tubing thru the compression nut, then push tubing into fitting as far as possible.

f. Tighten the compression nut finger tight onto the male tube fitting connector. Then use a 7/16" open end wrench and tighten an additional one-half turn.

g. At the option position where the modification PCB will be installed in the Multi Adapter, remove and retain the hardware from the end of the metal spacer.

h. Note that there is an 11-pin female connector (CN13) on the back side of the modification PCB. Align this connector with the male CN13( ) connector on the Multi Adapter PCB. Ensure that all 11 pins are engaged and then snap into place. Use the hardware to secure the board to the metal spacer.

i. Determine how long the PVC tubing must be to connect to the transducer without being stretched too tight or forming too large a loop. Squarely cut off the excess length.

j. See Figure 5. Firmly push the cut end of the PVC tubing onto the PCB input port fitting (P2). Secure PVC tubing using supplied TY-Rap.

NOTE

If "dry" tubing will not slip onto fitting, it may be lubricated with a SMALL amount of water or SILICONE OIL. If used, it MUST NOT be allowed to ENTER the input port hole.

6. Connect the external air supply to the bulkhead fitting (1/4"-18NPTF).

MAIN CONTROL PCB MODIFICATION

7. See Figure 6. Use diagonal wire cutters and cut resistor R5 leads as close to the PCB as possible. Discard resistor.

NOTE

Removing resistor R5 changes the drive's NORMAL CURRENT follower input to a VOLTAGE follower input. Any REPLACEMENT of the Main Control PCB in the future will require that the REPLACEMENT BE MODIFIED IN THE SAME MANNER.

ADJUSTMENTS

IMPORTANT

First complete adjustments specified in drive instruction manual. If other mod kits are present, adjust them according to their instructions BEFORE proceeding to the adjustment steps below:

Manual Mode:

8. Run the drive in the manual mode. Observe the FREQUENCY FAULT display and record both minimum and maximum frequency settings:

MINIMUM FREQ _____

MAXIMUM FREQ _____

These values will be used to determine the adjustment settings for the Auto mode.

Auto Mode

9a. For drives with internal OCS controls, turn the FREQ. ADJ. pot to the OFF position.

9b. For drives with a remote OCS and a remote command "Run Relay" modification, place the MAN/AUTO selector switch to AUTO.

10. Initiate drive Run command.

11. Apply the minimum (3PSIG) air signal.

12. Observe the FREQUENCY/FAULT display and adjust 5RH on Main Control PCB to obtain the desired minimum drive frequency. This frequency CANNOT be adjusted for a value lower than that which was set in the Manual mode of operation.

13. Apply the maximum (15PSIG) air signal.

14. Observe the FREQUENCY/FAULT display and adjust 6RH on Main Control PCB to obtain the desired maximum drive frequency. This frequency CANNOT be adjusted for a value higher than that which was set in the Manual mode of operation.

15. Adjustments 5RH and 6RH interact. Repeat steps 11 thru 14 until desired operation is attained.

16. Reinstall and secure all enclosure covers.

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

This completes installation of this modification kit.