LouisAllis
A Division of MagneTek Inc

For use with LANCER JR. TYPE VT General Purpose AC Inverter Drives. This kit is for drives rated 7-1/2 to 20HP, 230V or 460 VAC.

3-15 PSIG FOLLOWER MOD KIT
SPEED INVERSELY PROPORTIONAL TO PRESSURE

MODEL 92301 46S02674-0020

DESCRIPTION

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

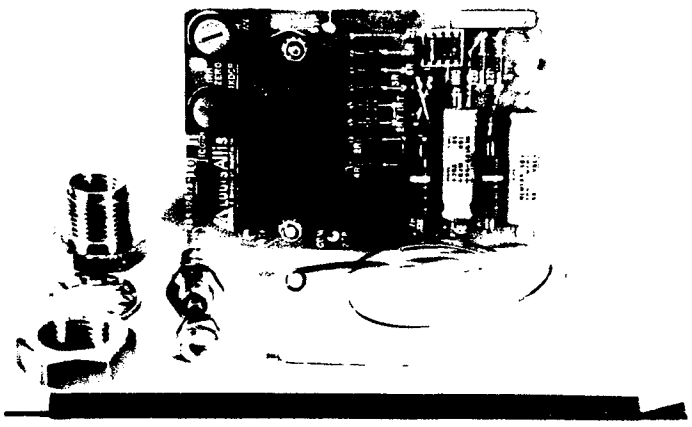

Figure 1.

The installation of this kit will allow the drive to accept a 3-15PSIG air signal, converting it to an inversely proportional 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.

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

Table 1. Kit Contents

QTY.	DESCRIPTION	PART NUMBER
1	Transducer/Signal Conditioner PCB	46S02673-0020
1	Brass Bulkhead Adapter (1/4"-18NPTF)**	05P00070-0147
1	Brass Male Tube Fitting Connector	05P00070-0120
1	1/4" O.D. PVC Tubing (24 inches)	D.E.P. 13I.2.97
1	PCB Extracting Tool w/user Instr.	05P00065-0058
1	TY-RAP 8"	

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

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1 STD2504 3/19/86					SHEET 1 OF 7
2 STD-2774 5-21-87 RRE					EFF. 3/19/86 (B)

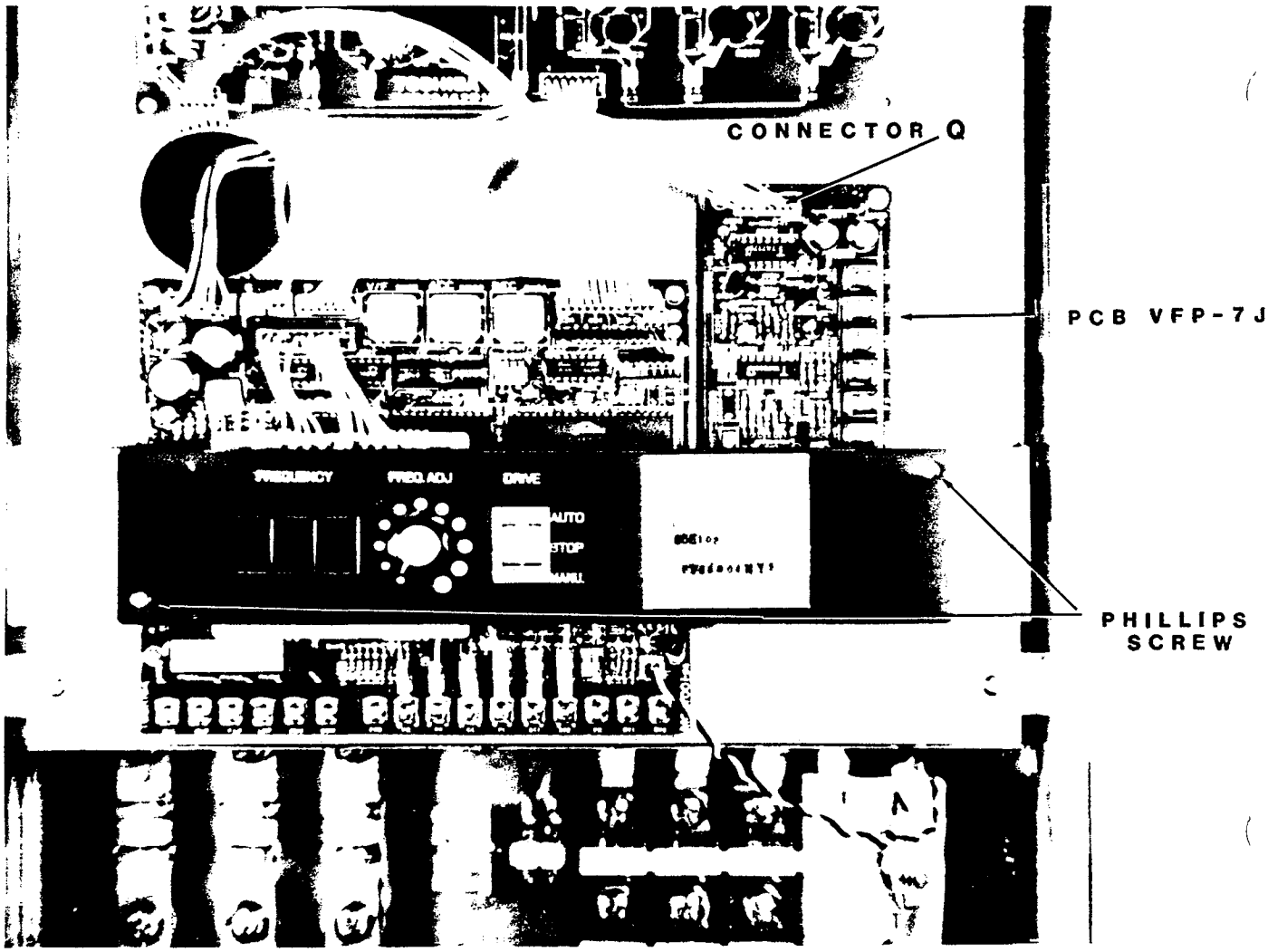

Figure 4. Component Location

8. See Figure 4. Remove and retain both Phillips screws which secure OCS pla to bracket. Carefully move it asi to expose PCB, part numbered VFP-7J.

9. Remove female connector designated "Q" from board.

10. Carefully remove the board from its four stand-offs using the supplied extraction tool. Ensure that stand-offs remain SECURED to drive chassis. Discard PCB board.

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11. See Figure 5. Connect 1/4" O.D. PVC tubing to the input port of the Transducer/Signal Conditioner PCB. Once installed, secure PVC tubing to input port using supplied TY-RAP.

IMPORTANT

Securely hold and support the PCB board while connecting the PVC tubing. Applying excessive pressure while completing this connection may cause board flexing, resulting in cracking or damage.

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

12. See Figure 7. Mount and secure Transducer Signal Conditioner PCB to the four existing stand-offs, ensuring that connector 1CONN is positioned at upper left.

IMPORTANT

Connector 1CONN is NOT POLARIZED. Verify location of Pin 1 on both connectors before completing Step 13.

13. See Figure 6. Insert female connector designated "Q" into 1CONN on board.

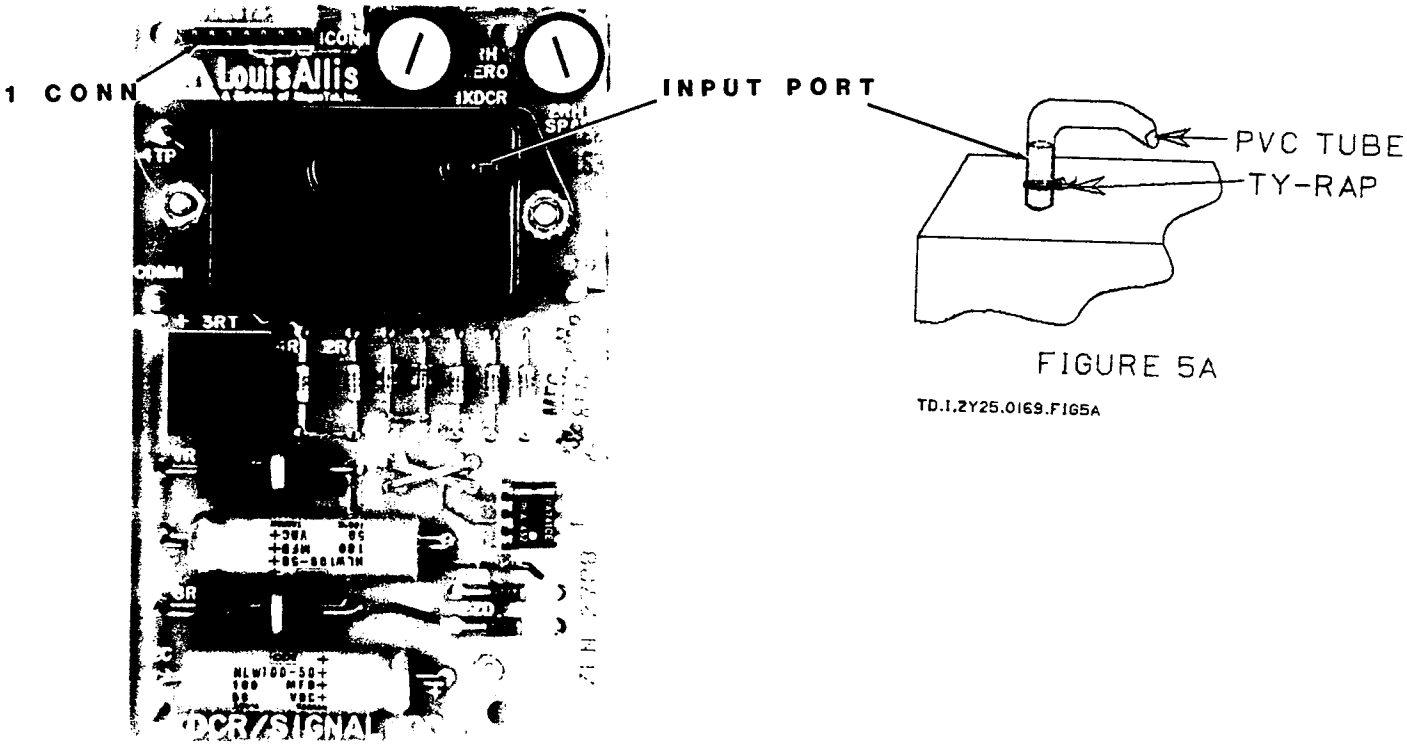

FIGURE 5A

TD.I.2Y25.0169.FIG5A

Figure 5. Transducer/Signal Conditioner PCB

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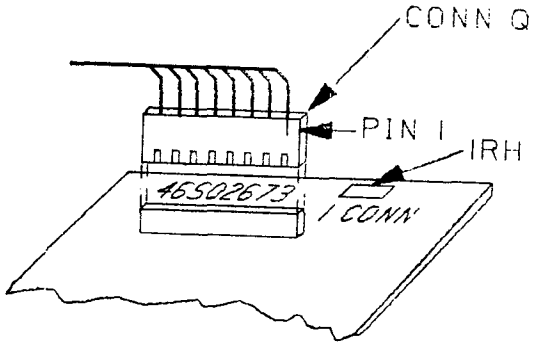


TD.1.2Y25.0185.FIG6

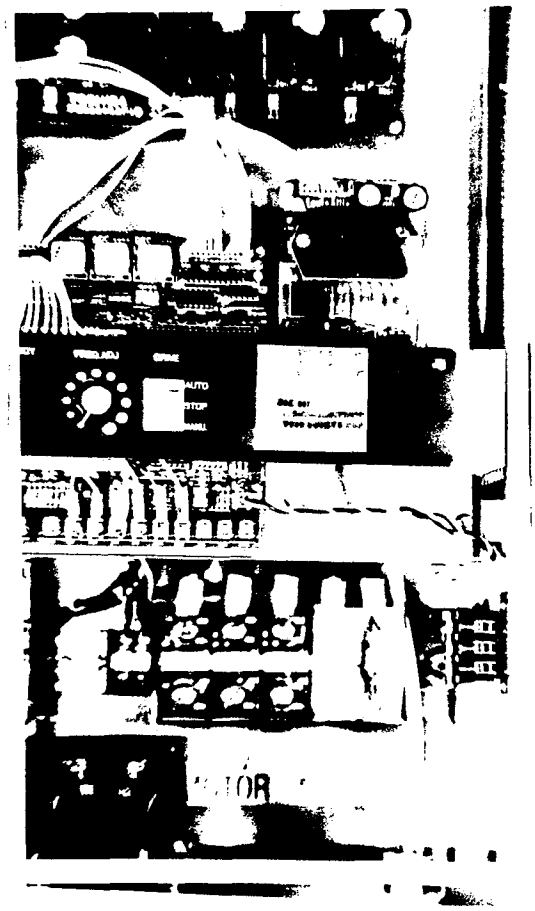
Figure 6. Connector Orientation

14. See Figure 7. Route PVC tubing as shown to the bulkhead connector at bottom of drive enclosure. Allow for slight loop at PCB end.

15. Remove the 7/16" compression nut from the male tube fitting connector. Squarely cut end of PVC tubing to proper length and insert tubing through the compression nut and plastic compression ring, pushing tube into fitting as far as possible.

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

17. Re-install and secure OCS plate.



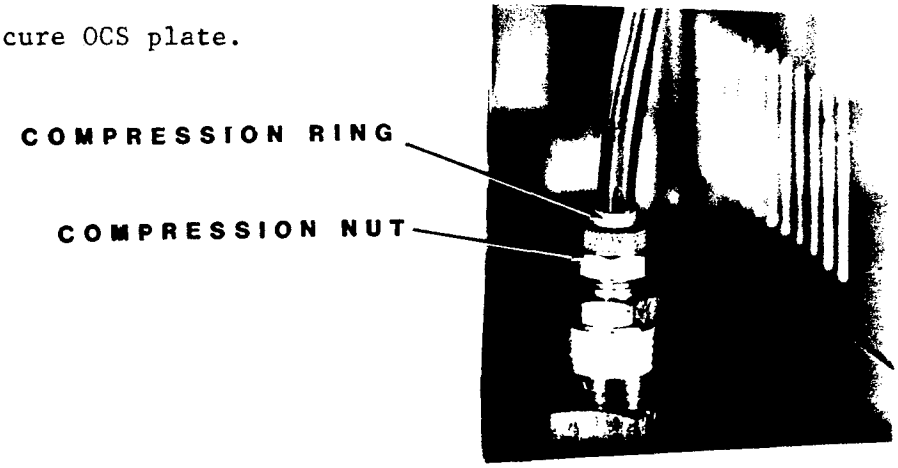


Figure 7. PVC Tube Routing

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FINAL ASSEMBLY

18. Connect the external air supply to the bulkhead fitting (1/4"-18NPTF) at bottom of drive enclosure.

IMPORTANT

Complete Step 19 ONLY IF the drive has been modified to include a Remote Command Run Relay. If it does not, go directly to Step 20.

19. See Figure 8.

a. If application requires a MAN/AUTO function, ADD an EXTERNAL SWITCH as shown in Figure 8A.

b. If application DOES NOT require a MAN/AUTO function, ADD a JUMPER as shown in Figure 8B.

ADJUSTMENTS

20. Complete adjustments specified in drive instruction manual.

Manual Mode: (If applicable)

21. Run the drive in the manual mode. Observe the OCS Plate FREQUENCY/FAULT meter and record both minimum and maximum frequency settings:

MINIMUM FREQ _____

MAXIMUM FREQ _____

After recording values turn drive OFF.

Auto Mode:

22. At Transducer/Signal Conditioner PCB, set 1RH (ZERO) at 75% and 2RH (SPAN) at 33%.

NOTE

These settings approximate a minimum inverter output of 3HZ at 15PSIG and a maximum output of 60HZ at 3PSIG.

23. Place MAN/AUTO selector switch to AUTO.

24. Initiate the drive run command and then apply the maximum (15PSIG) air signal.

25. Observe OCS Plate FREQUENCY/FAULT meter and adjust 1RH to obtain desired minimum drive output frequency.

Turning 1RH CW increases drives' minimum output frequency.

26. Apply minimum (3PSIG) air signal.

27. Observe OCS Plate FREQUENCY/FAULT meter and adjust 2RH to obtain desired maximum drive output frequency.

Turning 2RH CW increases drives' maximum output frequency.

28. Both 1RH and 2RH adjustments interact. Repeat Steps 25 thru 27 until desired operation is attained.

29. Close drive front cover.

30. Place these instructions directly behind front cover of instruction manual.

This completes installation of this modification kit.

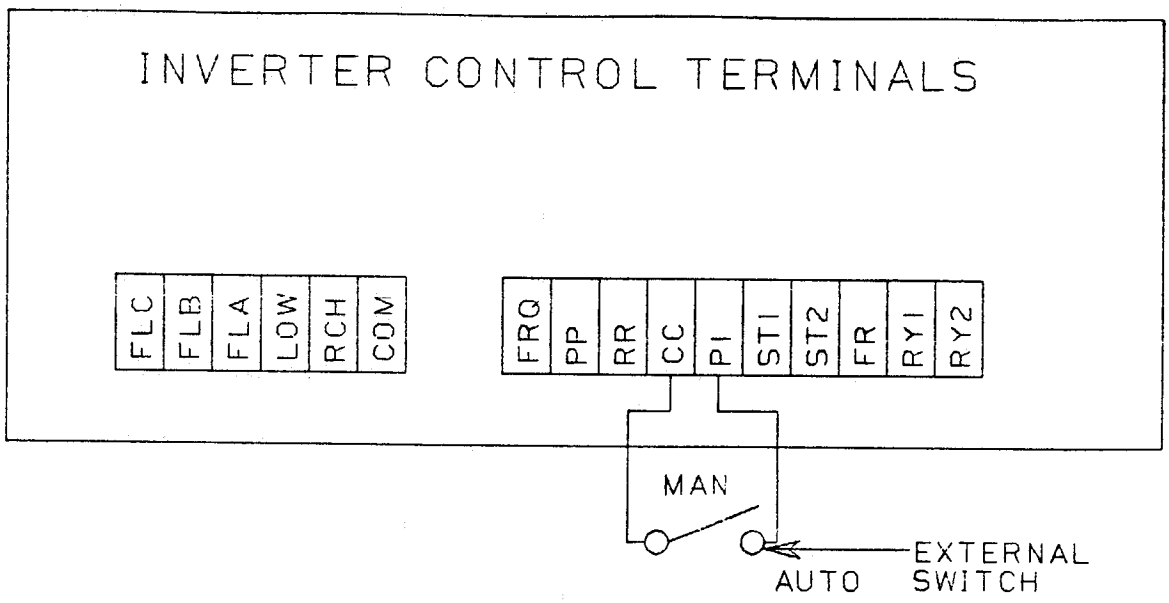

Figure 8A. MAN/AUTO Function Included

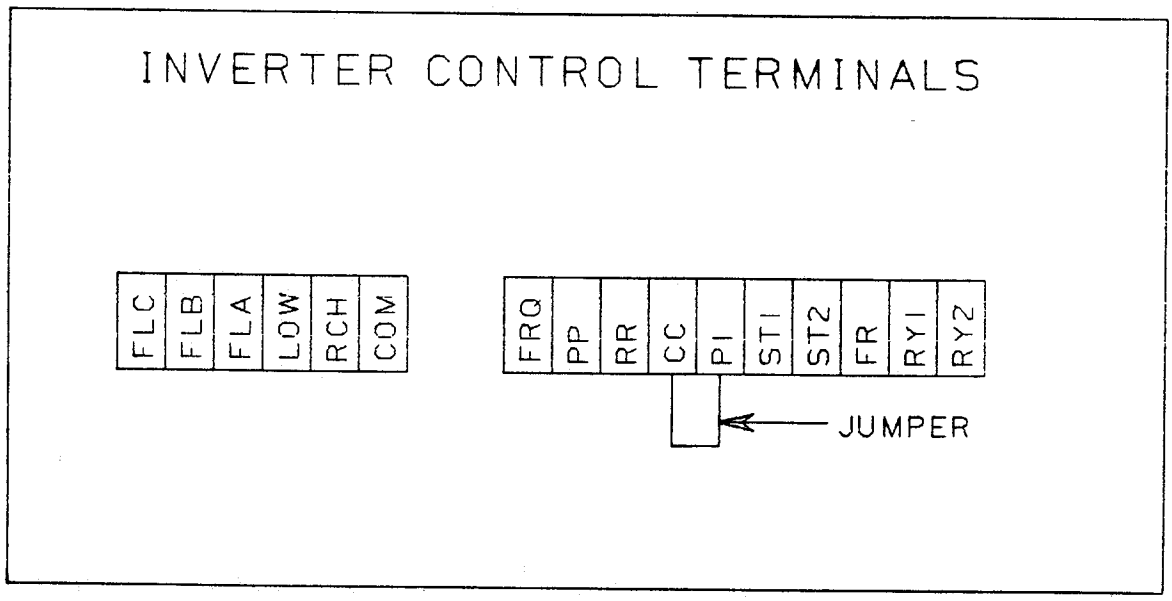

Figure 8B. MAN/AUTO Function NOT Included

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