

For use with Lancer I  
 Variable Frequency Drives.

## TRANSDUCER/SIGNAL CONDITIONER OPTION PCB

### 46S02591-0010      SCHEMATIC 45S02591-0010

#### DESCRIPTION

Many HVAC systems utilize pneumatic signals for process control. This option permits the Lancer I to accept a commonly used 3-15 psi air signal and convert it to a 0-10VDC signal usable by the drive as a speed signal. A standard 1/4-18 NPTF bulkhead adapter is provided for connection of the air line (provided by customer). Note that when this option is used, the Transducer Interface option PCB MUST ALSO BE USED.

#### INSTALLATION

The Transducer/Signal Conditioner PCB mounts to four standoffs which must be mounted onto panel hardware within the Lancer I drive prior to mounting the option PCB. For mounting locations and details, refer to Figure 1 for 40-75HP

drives and Figure 2 for 100-200HP drives.

#### INTERCONNECTION

After the option PCB has been installed, make wiring connections per Table 1.

After wiring is completed, connect air line to 1/4-18 NPTF bulkhead adapter.

If the Transducer/Signal Conditioner PCB is being added after the drive has been installed, refer to Section 1.2 in the Instruction Manual for instructions on how to update the 53SL number. A simplified diagram in the form of a pastie has been included with the Transducer/Signal Conditioner PCB. Modify the Signal Flow Diagrams in the Instruction Manual by pasting the pastie in position on Sheet 4.

TABLE 1.

SIGNAL	FROM OPTION PCB	TO
<b>RECTIFIER MAIN PCB</b>		
-15VDC	1TB-4	1TB-B24
Comm	1TB-5	1TB-B22
+15VDC	1TB-6	1TB-B18
<b>TRANSDUCER INTERFACE PCB</b>		
Output	1TB-1 (Direct Operation)	2TB-7
	1TB-3 (Inverse Operation)	
Comm	1TB-2	2TB-8

CHANGE RECORD				DWG. NO. 02Y00025-0161 SHEET 1 OF 4 EFF. 10/24/84
1	STD-2582	7-16-86		

ADJUSTMENTS

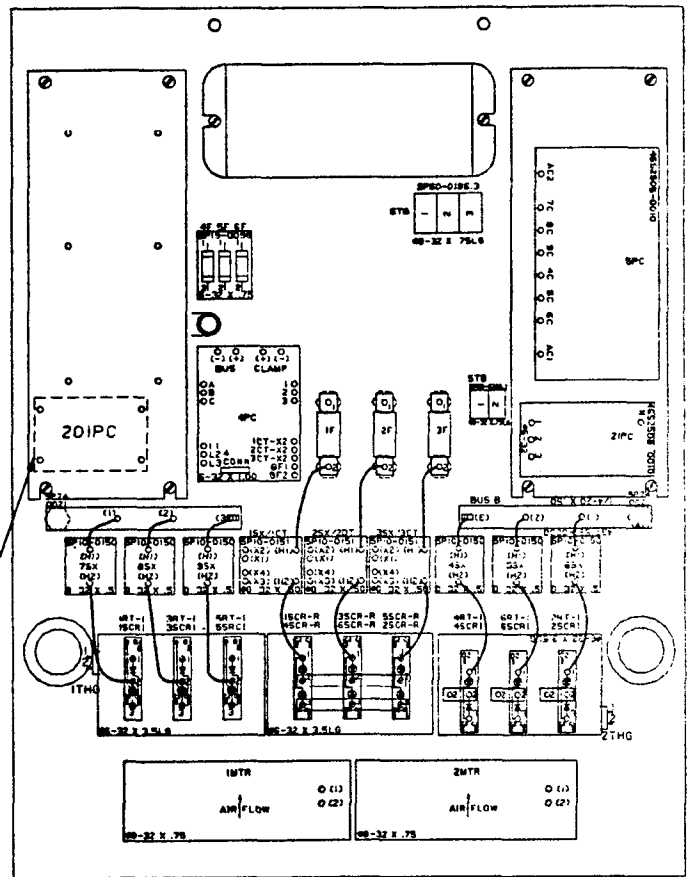
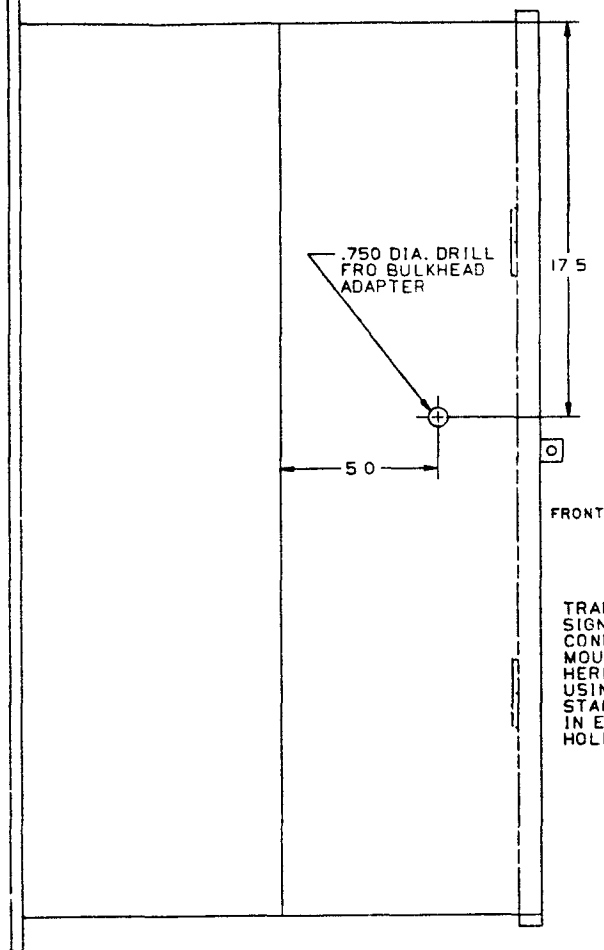
No adjustments are required on this PCB. For direct operation, the voltage is typically 3.75V to 11.25V over the pressure range of 3 to 15 psi. For inverse operation,

wire #115 must be moved to 1TB-3. Output voltage is then typically 3.1V to 9.3V over the pressure range of 15 to 3 psi.

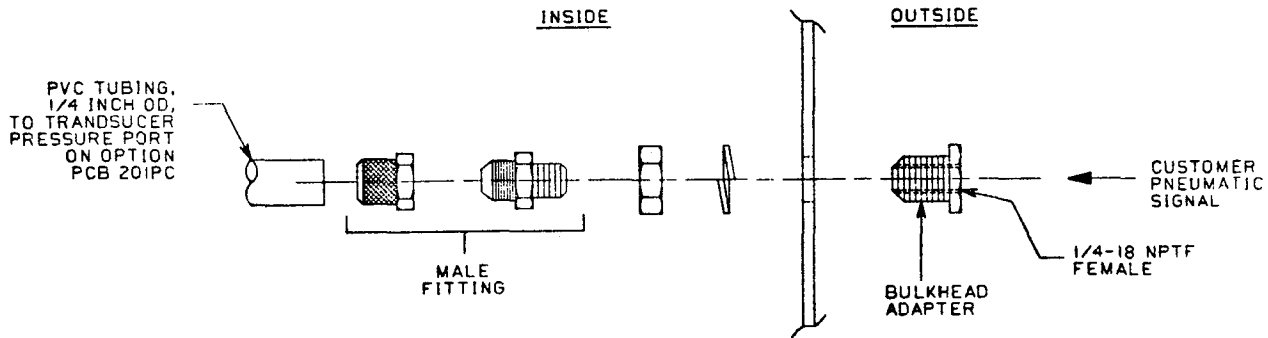
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LEFT SIDE OF ENCLOSURE

FRONT VIEW OF PANEL  
(INSIDE ENCLOSURE)



TRANSDUCER/  
SIGNAL  
CONDITIONER  
MOUNTED  
HERE  
USING (4)  
STANDOFFS  
IN EXISTING  
HOLES

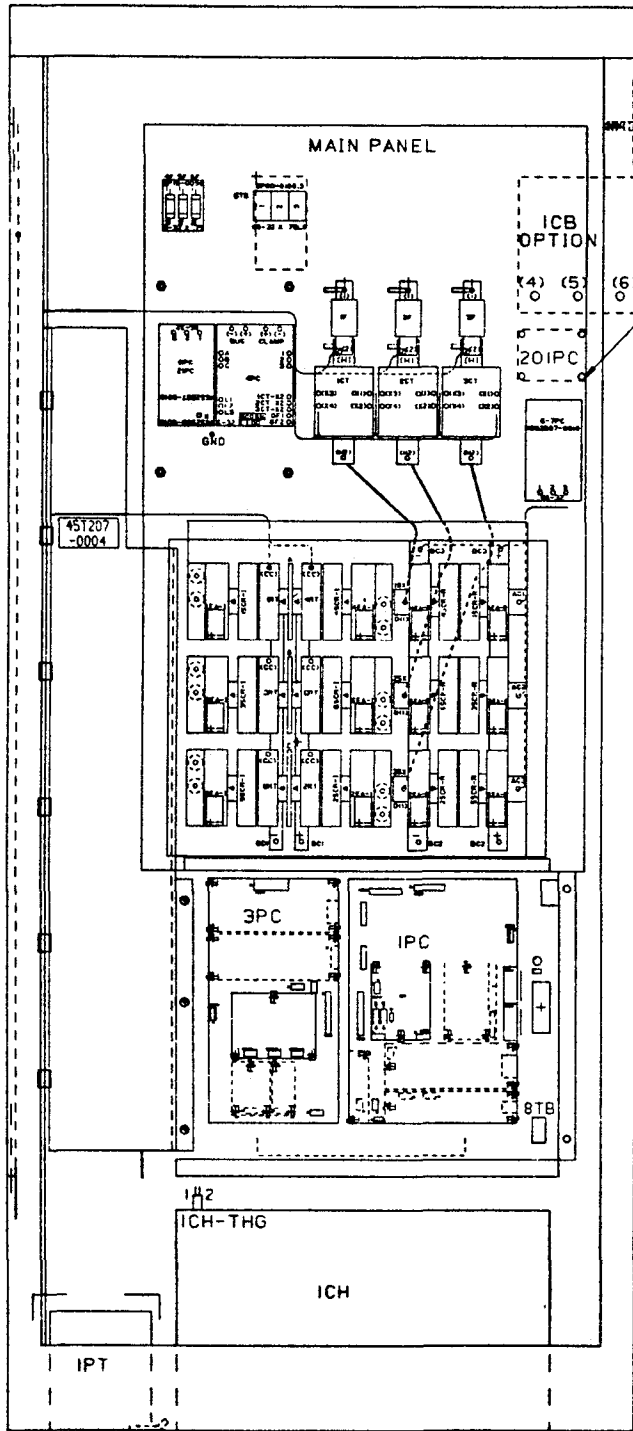


REF.2Y25.0161.1

FIGURE 1. OPTION PCB INSTALLATION INTO 40-75HP DRIVE

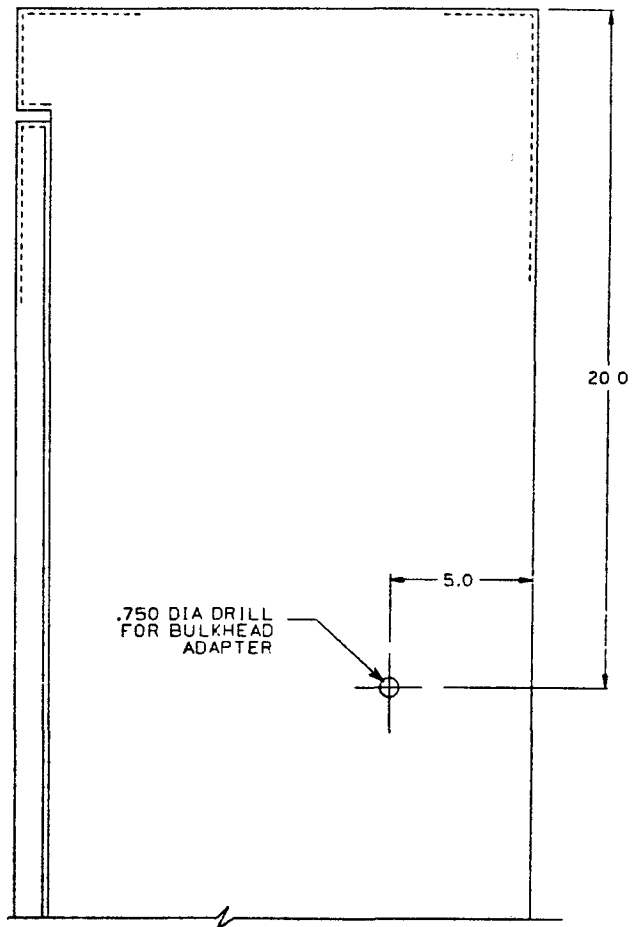
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SHEET 3 OF 4  
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FRONT VIEW OF ENCLOSURE



TRANSDUCER/SIGNAL  
CONDITIONER MOUNTED  
HERE USING (4)  
STANDOFFS

PARTIAL RIGHT SIDE OF ENCLOSURE



FRONT

NOTE: INSTALLATION OF BULKHEAD ADAPTER AND  
PVC TUBING IS SAME AS FOR 40-75 H.P.DRIVE.

REF.2Y25.0161

FIGURE 2. OPTION PCB INSTALLATION INTO 100-200HP DRIVE

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