

ISOLATED RECEIVER OPTION PCB

46S02371-0110 SCHEMATIC 45S02371-0110
-0111 -0111

DESCRIPTION

This option consists of components necessary for providing a 0 to ± 10 VDC output rated at 4mA which is used as an input to the Transducer Interface option PCB. Note that when the Isolated Receiver option is used, the Transducer Interface option PCB MUST ALSO BE USED.

Selectable voltage and current jumpers enable the circuit to provide the rated output for one of the following differential input signal ranges:

1. 0-10VDC
2. 0-40VDC
3. 0-100VDC
4. 0-200VDC
5. 1-5mA
6. 2-10mA
7. 4-20mA
8. 10-50mA

INSTALLATION

Referring to Figure 1 for 40-75HP drives or Figure 2 for 100-200HP drives, install the option in the following manner:

1. Install PVC mounting track (L.A. part no. 43T1501-0000) to panel or mounting plate where option is to be mounted, using appropriate hardware.
2. Install option assembly by pressing firmly into mounting track.
3. If the Isolated Receiver 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.

INTERCONNECTION

The Isolated Receiver requires that an external DC voltage or current be applied. Refer to schematic diagram for the following.

1. If this option is to be used as a voltage follower, a jumper must be installed from 1TB-11 and 1TB-12. Table 1 indicates which additional jumpers are required for a desired differential input voltage range.

Table 1

DIFFERENTIAL INPUT VOLTAGE AT 1TB-2 (+) AND 1TB-1 (-)	JUMPERS REQUIRED
0 to 10VDC	1TB-3 to 1TB-6 1TB-7 to 1TB-10
0 to 40VDC	1TB-4 to 1TB-6 1TB-8 to 1TB-10
0 to 100VDC	1TB-1 to 1TB-5 1TB-2 to 1TB-9
0 to 200VDC	1TB-1 to 1TB-4 1TB-2 to 1TB-8

2. If this option is to be used as a current follower, Table 2 indicates the jumpers required for a desired differential input current range.

CHANGE RECORD

1	STD-2513	4/16/86
2	STD-2582	7/22/86

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TABLE 2

DIFFERENTIAL INPUT CURRENT AT 1TB-11 (+) AND 1TB-17 (-)	JUMPERS REQUIRED
1 to 5mA	1TB-11 to 1TB-13
2 to 10mA	1TB-11 to 1TB-14
4 to 20mA	1TB-11 to 1TB-15
10 to 50mA	1TB-11 to 1TB-13 1TB-13 to 1TB-14 1TB-14 to 1TB-15 1TB-15 to 1TB-16

NOTE

The -0110 and -0111 PCBs are identical except for the terminal numbers on 2TB. The following instructions show 2 numbers for 2TB. The first is for the -0110 PCB, the second in parentheses () is for the -0111 PCB.

3. Connect control power by connecting wires between the following points:

a. 2TB-10(27) on Isolated Receiver to 1TB-B18 on Rectifier Main PCB.

b. 2TB-9(26) on Isolated Receiver to 1TB-B22 on Rectifier Main PCB.

4. Connect output by connecting wires between the following points:

a. 2TB-8(25) on Isolated Receiver PCB to 2TB-8 on Transducer Interface PCB.

b. 2TB-7(24) on Isolated Receiver PCB to 2TB-7 on Transducer Interface PCB.

ADJUSTMENTS

After installing the option PCB, remove

wires from 2TB-7(24) and 2TB-8(25) and apply power to the drive. Follow the steps for offset and span calibration.

A. For Voltage Follower:

1. Set up for a differential 0-10VDC input.

2. With 0VDC input, adjust the OFFSET pot (2RH) for 0.00VDC at the output, 2TB-7(24) (+) and 2TB-8(25) (-).

3. Apply 1.00VDC input between 1TB-2 (+) and 1TB-1 (-) and adjust the SPAN pot (1RH) for 1.00VDC at the output.

B. For Current Follower:

1. Set up for a differential 1-5mA input.

2. Apply 1.00mA between 1TB-11 (+) and 1TB-17 (-). Adjust the OFFSET pot (2RH) for 0.00VDC at the output.

3. Increase the input current to 5.00mA. Adjust the SPAN pot (1RH) for 10.00VDC at the output.

If the results in A or B above cannot be obtained, perform the option troubleshooting procedure.

After completing adjustments, reconnect wires to 2TB-7(24) and 8(25).

TROUBLESHOOTING

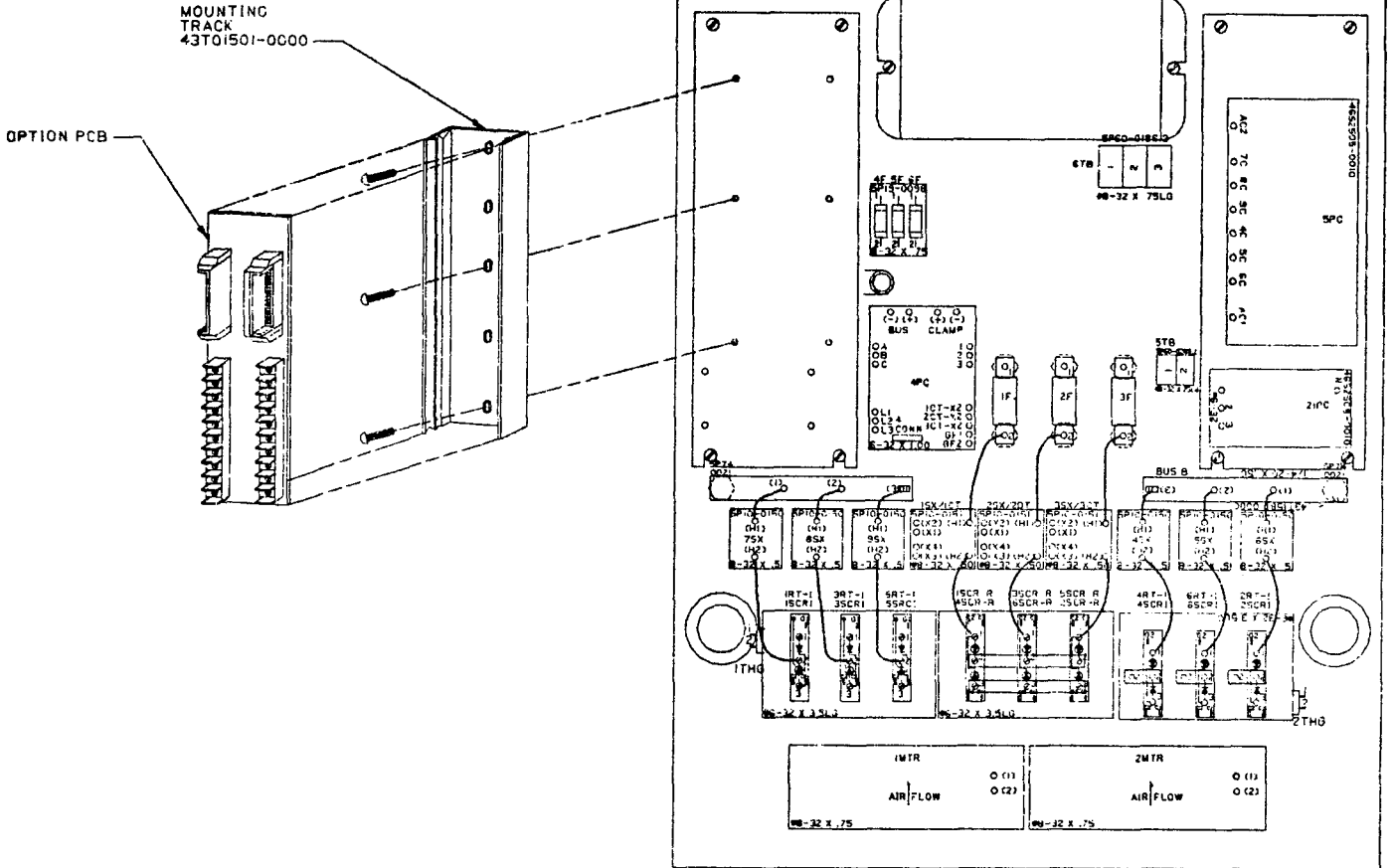
If other options or modifications have been installed, be sure to troubleshoot them thoroughly before discarding this option as faulty.

1. Check that interconnection was made correctly according to this instruction sheet.

2. Measure +15VDC $\pm 5\%$ at 3TP with respect to 4TP (-). If not correct, replace option PCB.

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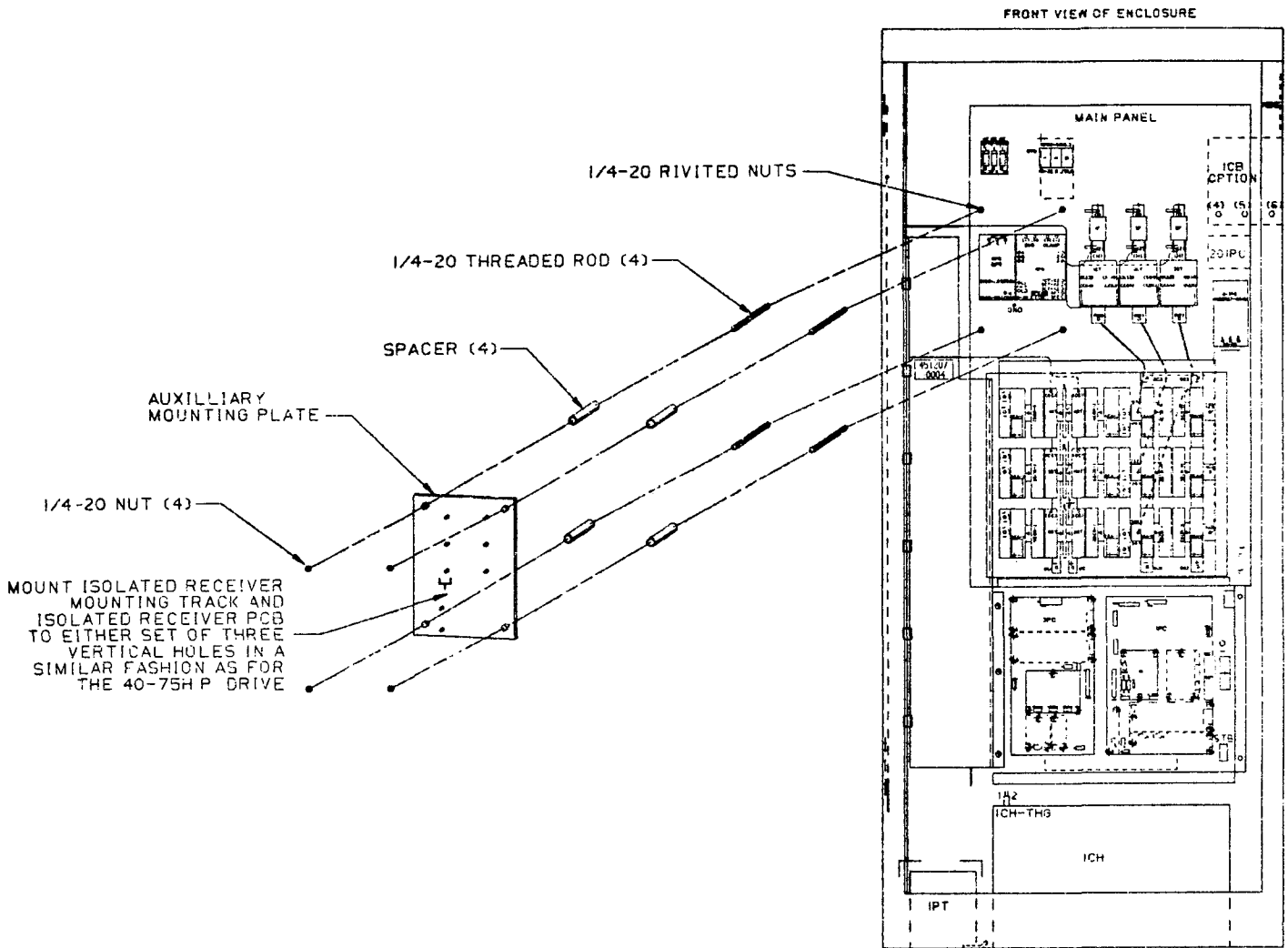
FRONT VIEW OF PANEL
(INTERIOR OF LANCER I ENCLOSURE)



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

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REF.2Y25.0160.2

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

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