

86OPT07 I/O Board Installation Instructions

Description:

This option provides optically isolated outputs for setpoints and optically isolated inputs for remote switches and digital inputs for batching functions. This option can be used with the Model 4200 and the Model 8600.

Refer to the Model 4200 Operating and Service Manual and the Model 8600 Instruction Manual for more information. Also refer to assembly drawings 04-SUB120 and 04-SUB121.

A. Required parts:

1.	PCB-174,	Digital I/O PCB Assembly.	1 ea.
2.	ENC-375,	Mounting Plate	1 ea.
3.	SUB0196	Ribbon Cable Assembly	1 ea.
4.	FST-011,	6-32 Keps Nut	4 ea.
5.	FST-023,	6-32 X 1/2 Phil Pan Scr	4 ea.
6.	FST-098,	# 6 Lockwasher	8 ea.
7.	HDW-082,	6-32 X 1/2 M/F Standoff	4 ea.
8.	HDW-086,	3/16 Nylon Spacer	4 ea.
9.	HDW-088,	6-32 X 3/8 M/F Standoff	8 ea.
10.	HDW-105,	6-32 X 1 3/4" M/F Standoff	4 ea.
11.	CNT-019,	Liquid Tite Feed Thru	1 ea.

Note: Item 10 is used in RSS version only.

B. Installation:

1. Mount the I/O PCB Assembly to the mounting plate using the 6-32 X 1/2 screws and the 3/16 nylon spacers.
2. Assemble one of the 6-32 X 1/2 standoff and two of the 6-32 X 3/8 standoffs together to create an 1 1/4" standoff.
3. Assemble the standoff, in step 2, to mounting studs that hold the main pcb assembly to the mounting plate. Install over the keps nut.

For the RSS version, remove the keps nuts that hold the main pcb assembly. Assemble a #6 lockwasher to the mounting stud and install the 1 3/4" standoff.

4. Plug the ribbon cable into P1 of the I/O PCB.
5. Plug the other end of the ribbon cable to J8 of the main pcb. Be sure of proper orientation of cable.
6. Assemble the mounting plate to the standoffs with 6-32 keps nuts.

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C. I/O Wiring and Connections

1. Setpoint Wiring: TB2.

The outputs on TB2 are single pole single throw (SPST), normally open (N.O.), optically isolated solid state relays (SSR). These relays can control AC or DC loads up to 100 ma. The maximum voltage that can be switched is 50 volts AC or DC. These outputs are sufficient to drive the Option 865 Interface Relay Unit, most solid state relays, and low current mechanical relays.

TB2 Position	Model 4200	Model 8600
1	Input Voltage	Input Voltage
2	Aux. Input	Aux. Input
3	Over Output	Setpoint 9
4	Accept Output	Setpoint 8
5	Under Output	Setpoint 7
6	Setpoint 6	Setpoint 6
7	Setpoint 5	Setpoint 5
8	Setpoint 4	Setpoint 4
9	Setpoint 3	Setpoint 3
10	Setpoint 2	Setpoint 2
11	Setpoint 1	Setpoint 1
12	Setpoint 0	Setpoint 0

2. Remote Switch Connections: P2.

P2 supports remote normally open (N.O.) pushbutton switches that emulate the function keys on the touch panel. A Molex p/n 09-50-3021 housing and 2 Molex p/n 08-50-0106 pins are required for each switch to connect to P2.

P2 Positions	Model 4200	Model 8600
1 & 2	TARE	RECALL
3 & 4	PRINT	TARE
5 & 6	CONVERT	GROSS/NET
7 & 8	GROSS/NET	ACCUMULATE
9 & 10	SPARE 1	SPARE
11 & 12	SPARE 2	UNITS
13 & 14	SPARE 3	DIGIT (2)
15 & 16	SPARE 4	DIGIT (3)

3. Digital Inputs: TB1.

The inputs on TB1 are optically isolated inputs that can be programmed to do various functions. These digital inputs require a dry contact closure or an open collector output. The programming of these inputs is explained in the 8600 Manual, 5.8 DIG 1 thru 5.E DIG 7. These are not available on the Model 4200.

TB1 Positions	FUNCTION
3 & 4	Input 1
5 & 6	Input 2
7 & 8	Input 3
9 & 10	Input 4

TB1 Positions	FUNCTION
11 & 12	Input 5
13 & 14	Input 6
15 & 16	Input 7

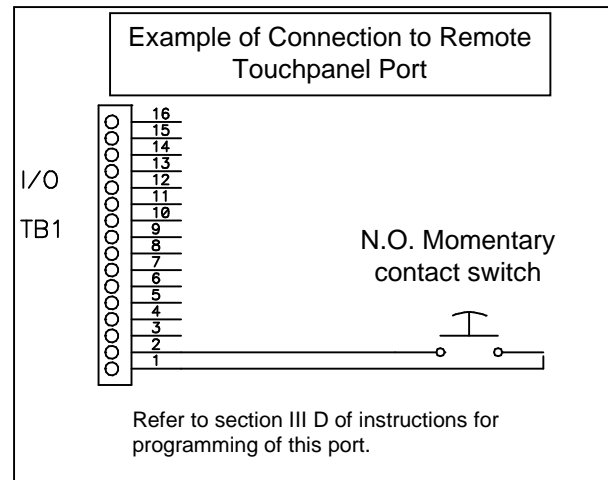
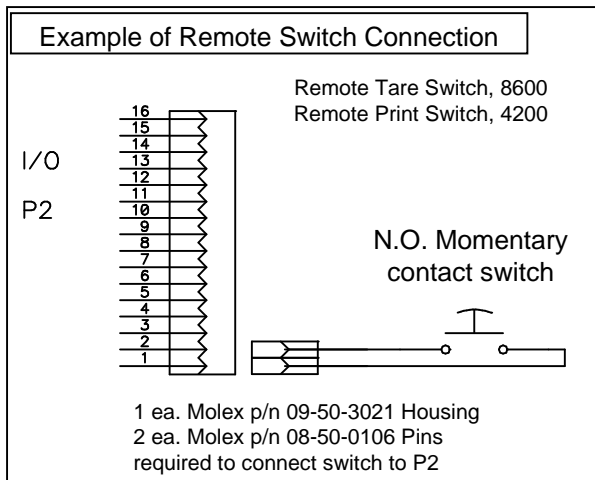
D. Remote Touch Panel Function: TB1.

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The input on TB1 pins 1 & 2 is an optically isolated input that emulates the touch panel. The function that the input performs is programmed by jumpers JMP1 and JMP2. A dry contact closure or an open collector output can be used to activate the remote touch panel function. The closure or open collector output must be a momentary (less than 300ms) contact, or the touch panel will lock up. This input is available on the Model 4200 and the Model 8600.

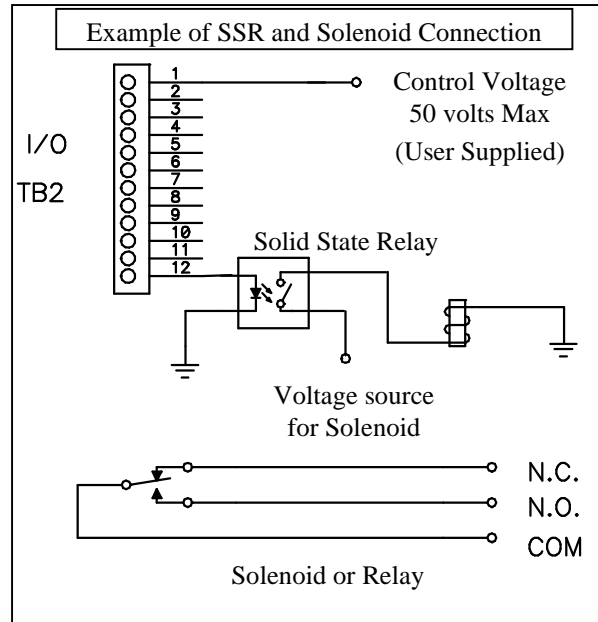
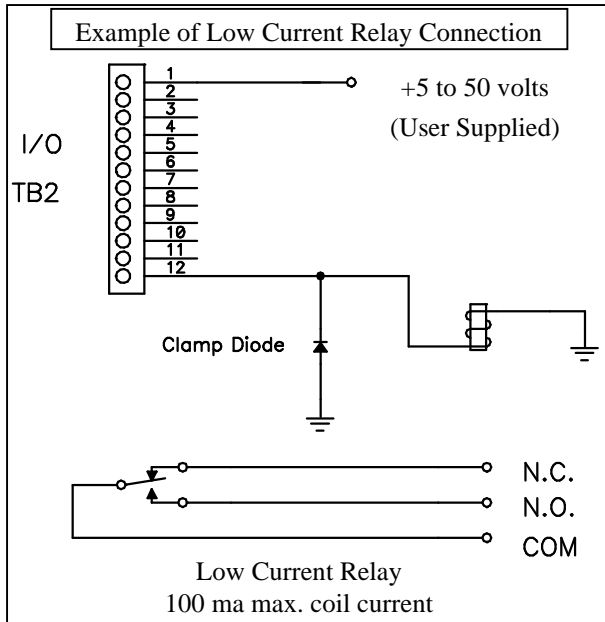
Remote Touch Panel Programming			
8600 FUNCTION	JMP1	JMP2	4200 Function
Zero	Zero	Gnd	Zero
Accum	S1	R1	Grs/Net
Grs/Net	S1	R2	Convert
Tare	S1	R3	Print
Aux. Switch	S1	R4	n/a
Units	S1	R6	n/a
Print	S1	R7	n/a
Recall	S2	R1	Tare
Setpoint	S2	R2	Product
1	S2	R7	n/a
2	S2	R6	n/a
3	S2	R5	n/a
4	S2	R4	n/a
5	S2	R3	Under
6	S3	R7	n/a
7	S3	R6	n/a
8	S3	R5	n/a
9	S3	R4	n/a
0	S3	R3	Down Arrow
n/a	S3	R2	Up Arrow
n/a	S3	R1	Over

Examples of Remote Switch Connections



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Examples of Relay Connections



Examples of Digital Input Connections

