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882D Belt Scale Integrator

Digital I/O Option Card

The Digital I/O (DIO) Option Card (PN 160761) provides 24 additional DIO, able to be configured as either inputs or outputs. The first eight DIO can be accessed with a pluggable connector on J1. A 60 pin ribbon cable (sold separately) is need to access all 24 DIO and can be plugged into header J2.

See the 882D technical manual (PN 184260) for complete instruction on opening the enclosure and the necessary ports for plugging into 882D CPU board.



Manuals and additional resources are available from the Rice Lake Weighing Systems website at www.ricelake.com

Warranty information can be found on the website at www.ricelake.com/warranties



WARNING

Always disconnect power before opening the enclosure. Option card is not hot swappable.



CAUTION

A grounding wrist strap must be worn to protect components from electrostatic discharge (ESD) when working inside the 882D enclosure.

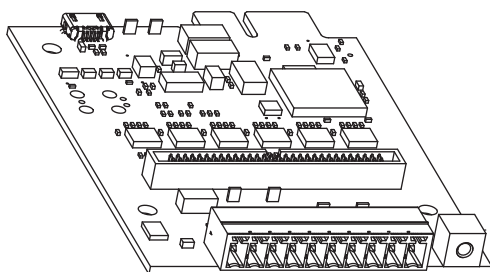


Figure 1. Digital I/O Option Card Kit (PN 190527)

The included parts kit contains items used for installation of the card. See the 882D technical manual for more information on shield grounding.

Part No.	Description	Qty
160761	Board Assy, Dual Com	1
190924	Parts Kit (*includes the parts listed below)	1
*15130	Washer, Lock NO 6 Type A (used for stud grounding)	1
*15631	Cable Tie, 3 inch Nylon (secures cable in panel mount installation)	4
*164918	Connector, 10 Pos Screw Terminal (interface connector)	1
*180826	Nut, M4 x 0.7 Hex (used for stud grounding)	1
*194487	Screw, SEMS Phillips M3 x 6 (secures card to controller assembly)	3
*53075	Clamp, Ground Cable Shield (used for stud grounding)	1

Table 1. Digital I/O Option Card Kit Parts List

Use the following instructions to install and configure the digital I/O option card.

1. Disconnect power to the 882D.
2. Open the enclosure as instructed in the 882D technical manual.
3. Connect the card to slot 1 (J8) or slot 2 (J9).



Note

Rice Lake Weighing Systems also offers interface option cards that must be used in slot 1. The digital I/O option card must be used in slot 2 if an interface option card is also in use.

4. Secure with the three provided M3 screws.
5. Route the cable and make the connection to the option card using one of the following options:

Connection to J1:

- Cable 14-30 AWG

Connection to J2:

- Flat Ribbon Cable (PN 170008), 24"
- Round Ribbon Cable, (PN 170009) 60"
- Round Ribbon Cable with cord grip, (PN 170736) 60"



Note

Connection cables for J2 include a 60 to 50 pin adapter for relay rack connection.

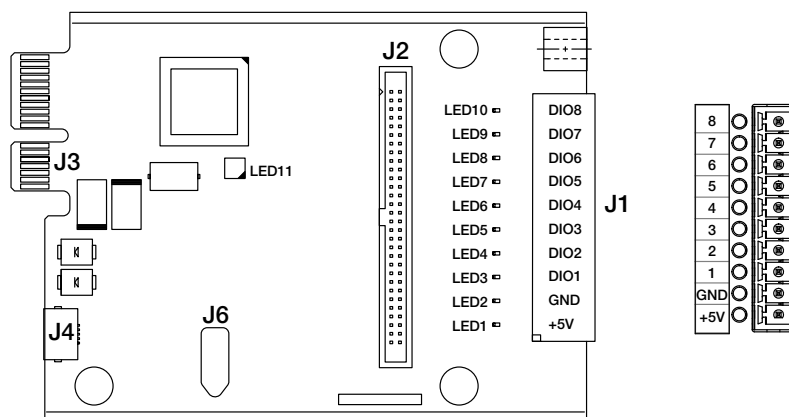


Figure 2. Digital I/O Option Card

Pin	Signal	Pin	Signal
1	DIO24	27	DIO11
3	DIO23	29	DIO10
5	DIO22	31	DIO9
7	DIO21	33	DIO8
9	DIO20	35	DIO7
11	DIO19	37	DIO6
13	DIO18	39	DIO5
15	DIO17	41	DIO4
17	DIO16	43	DIO3
19	DIO15	45	DIO2
21	DIO14	47	DIO1
23	DIO13	49, 51-60	+5V
25	DIO12	even pins	GND

Table 2. Pin Assignments



Note

The slot of the controller assembly that is selected for the installation of the card determines the Digital I/Os that are available (DIO_1 through DIO_24).

6. Ensure no excess cable is left inside the enclosure and use the provided cable ties to secure loose cables inside the enclosure as needed.
7. Ground the shield cable using the grounding stud on the enclosure with the included cable clamp. The round ribbon cable, if used, includes a grounding wire that attaches to the ground stud.
8. Tighten the cord grip and cord grip nut.
9. Reconnect power to the 882D.

LED Status Indicators

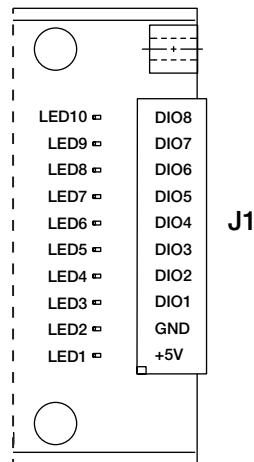


Figure 3. Digital I/O Option Card LEDs

LED	Status
1	Green flashing indicates card is working. Red indicates it is faulty
2	Not used
3-10	Green indicates if the input or output is active

Table 3. LED Status Light Descriptions

Specifications

I/O Channels	Up to 24, 5V/TTL, each software configurable as input or output
Relay Supply Voltage	5 VDC, 500 mA, PTC Fuse 750 mA
Input Voltage	0–5.5V maximum
Digital Outputs	24 mA balanced outputs with sink/source capability
Input Protection	8-screw terminal: 600W transient voltage suppression for ESD, EFT (electrical fast transients), tertiary lightning, and system-generated transients per IEC 60001-4-2, 60001-4-4, and 60001-4-5; European Standards EN50082 and EN61000-4 Remaining I/O: 2KV HBM, 200V machine model
I/O Connection	60-pin ribbon connector, 8-screw terminal connector



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