POWERAMP
McGUIRE
DLM
SYSTEMS
Loading Dock Equipment

Auxiliary Door Limits • Installation instructions

⚠ DANGER

Make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

⚠ CAUTION

All electrical work — including the installation of the disconnect panel, control panel, and optional sensors — must be performed by a certified electrician and conform to all local and applicable national codes.

Door Operator Auxiliary Limits

Auxiliary limits in Door Operators are used to signal the position of the door to external equipment. This information can be used for interlocking and sequence of operation, and also to provide analytics for dock management applications.

Auxiliary limits are optional on most operators. To verify if an operator has auxiliary limits, reference the operators Owner's and User Manual.

Installation Instructions

1. Before attempting the installation, review the wiring diagram for the iDock (C) and the door operator (N). See Figure 1.

   Note: iDock wiring information available from Systems, LLC. Locate the drawing number inside the iDock and contact Technical Services using the information below. Auxiliary limit wiring in the operator is provided by the dock door operator manufacturer.

2. Use the door operator Owner's and User manual to verify the auxiliary interlock configuration and determine if the auxiliary switches are present.

3. If limit switches are not present, check with the operator manufacturer to see if there are retrofit options. If retrofit kits are not available, Systems, LLC offers door position sensors (D) and (F) that can be used instead. See Figure 1.

4. Plan a route for the limit switch wiring from the iDock to the operator (N). You will need 4 conductors between the operator and iDock (C). See Figure 1.

5. Reference all national and local codes before installing electrical components.

Electrical Connections

1. Secure wires following all applicable local and national codes.

   Note: If also installing a vehicle present sensor, it can share conduit to the iDock. Use conduit with a sufficient I.D. to secure the additional sensor cable.

2. Remove factory installed yellow jumper wires in the iDock, if present.

3. Terminate the auxiliary limit switch wiring in the iDock (**C**) with the following connections:

Small Terminal Board (See Figure 8 - Page 2)

- Wire #20 (Common) connect to Terminal 20.
- Wire #20 (Common) connect to Terminal 21.
- Wire #24 (Door Open Signal) to Terminal 29.
- Wire #25 (Door Closed Signal) to terminal 30.

Large Terminal Board (See Figure 9 - Page 2)

- Wire #20 (Common) connect to Terminal 30.
- Wire #20 (Common) connect to Terminal 31.
- Wire #29 (Door Open Signal) to Terminal 51.
- Wire #30 (Door Closed Signal) to terminal 52.

4. Land the limit switch wiring in the operator according to the instructions in its manual. Wiring may vary between manufacturer.

   Note: For questions on operator wiring, please contact the operator manufacturer.

5. Continue to testing operation on page 2.

Conduit to Dock Door Operator.

Door Opening
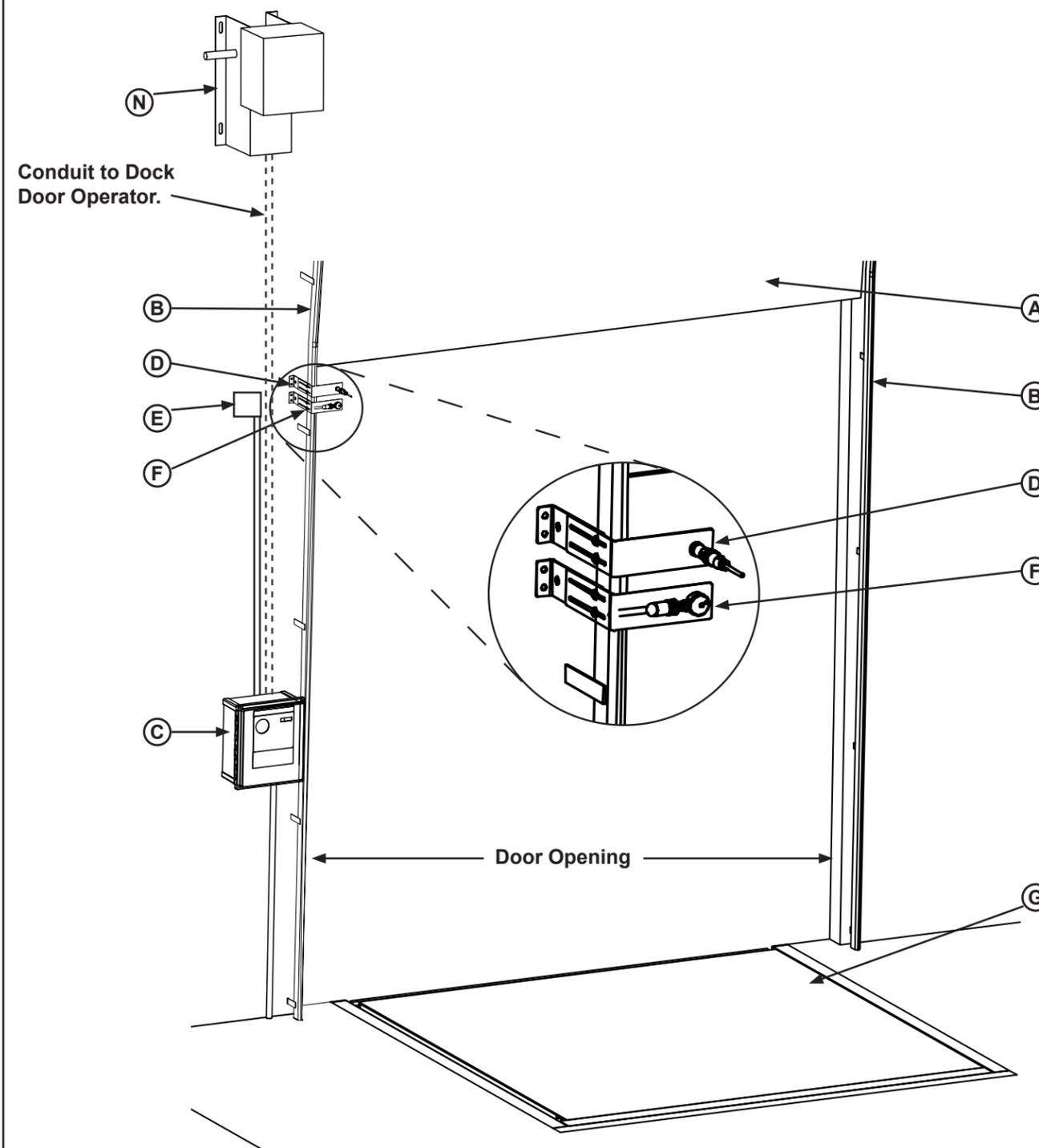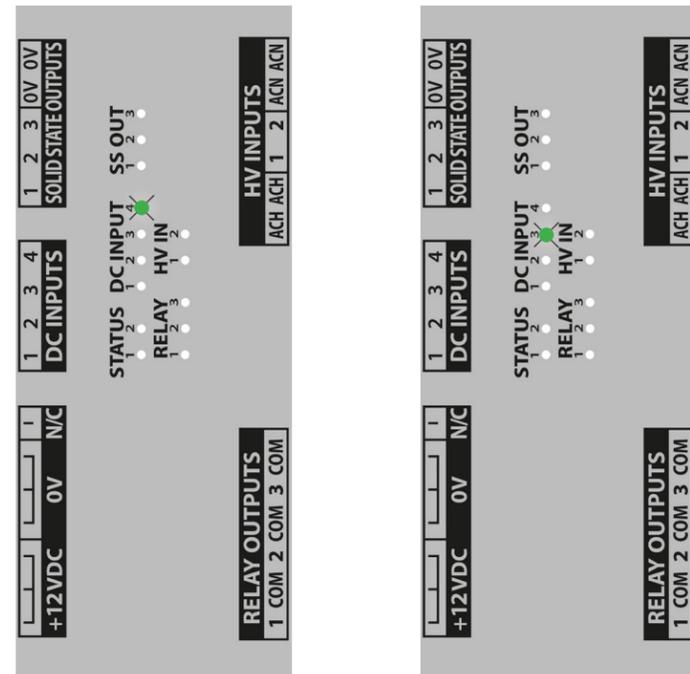
Figure 1

A—Overhead Door (Open)	D—Door Open Sensor Kit (7155-0010)	G—Dock Leveler	K—Adjusting Hardware
B— Door Track	E—Suggested J-Box Location (door sensors only)	H—Bracket	M—Sensor Cable
C—iDock Controller	F—Door Closed Sensor Kit (7155-0011)	J—Sensor	N—Door Operator

Systems, LLC ● W194 N11481 McCormick Drive ● Germantown, WI 53022 ● 800.643.5424 ● fax: 262.255.5917 ● www.loadingdocksystems.com ● techservices@loadingdocksystems.com

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Auxiliary Limit Installation (Continued)

Testing Operation

1. After the electrical connections have been made, remove the lock out tag outs and safely energize the equipment.

2. With the door in the *Closed* position, the terminal board in the iDock controller should display the following:
   - Small Terminal Board: DC Input #4 ON (Figure 4)
   - Large Terminal Board: DC Input #9 ON (Figure 5)

3. With the door in the *Open* position, the terminal board in the iDock controller should display the following:
   - Small Terminal Board: DC Input #3 ON (Figure 6)
   - Large Terminal Board: DC Input #8 ON (Figure 7)

4. If the equipment is operating correctly, based on steps 1-3 above, then the installation is complete. If you require further assistance with the installation, contact Systems Technical Services.

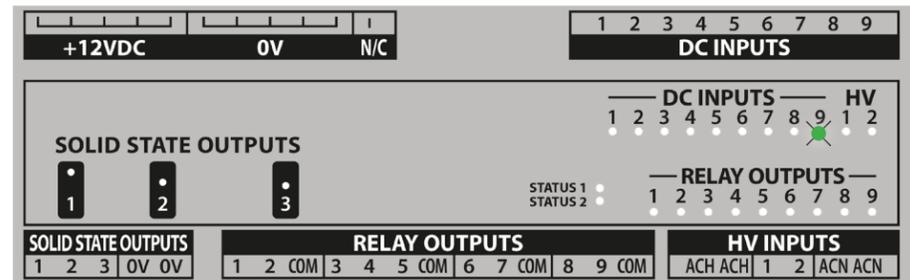**Small Terminal Board - Aux Limit Operation**

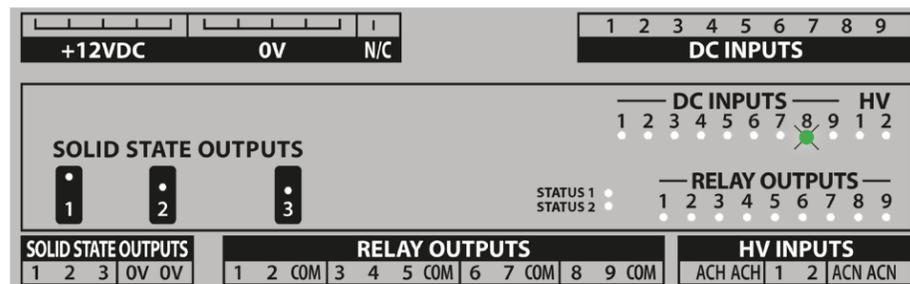Door *Closed* - Input 4 ON

Figure 4

Door *Open* - Input 3 ON

Figure 5

Large Terminal Board - Aux Limit Operation

Door *Closed* - Input 9 ON

Figure 6

Door *Open* - Input 8 ON
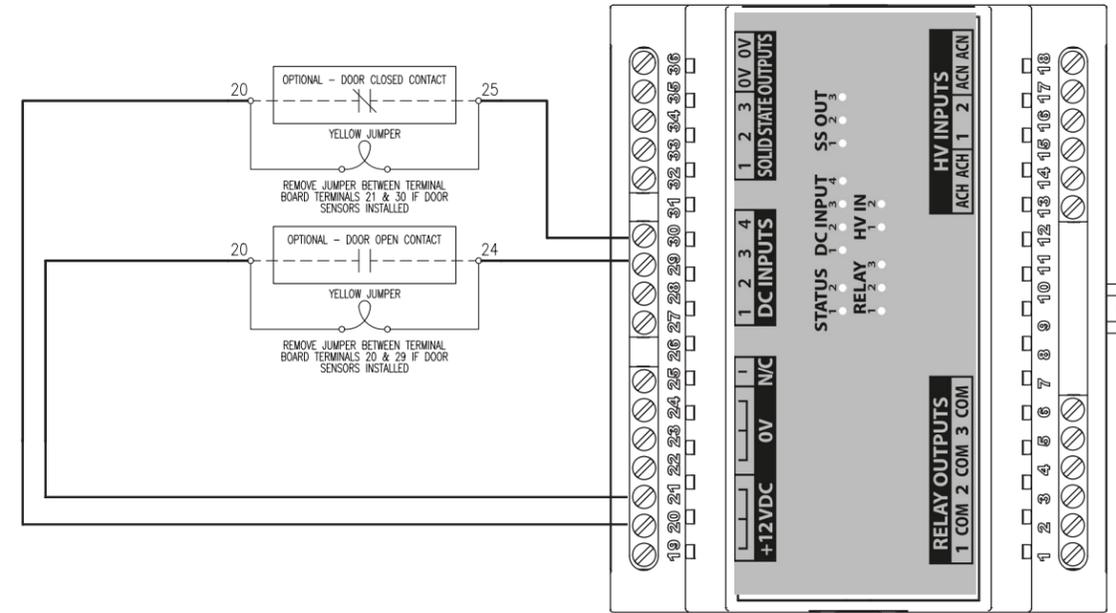
Figure 7

Small Terminal Board - Aux Limit Wiring

Figure 8

Large Terminal Board - Aux Limit Wiring

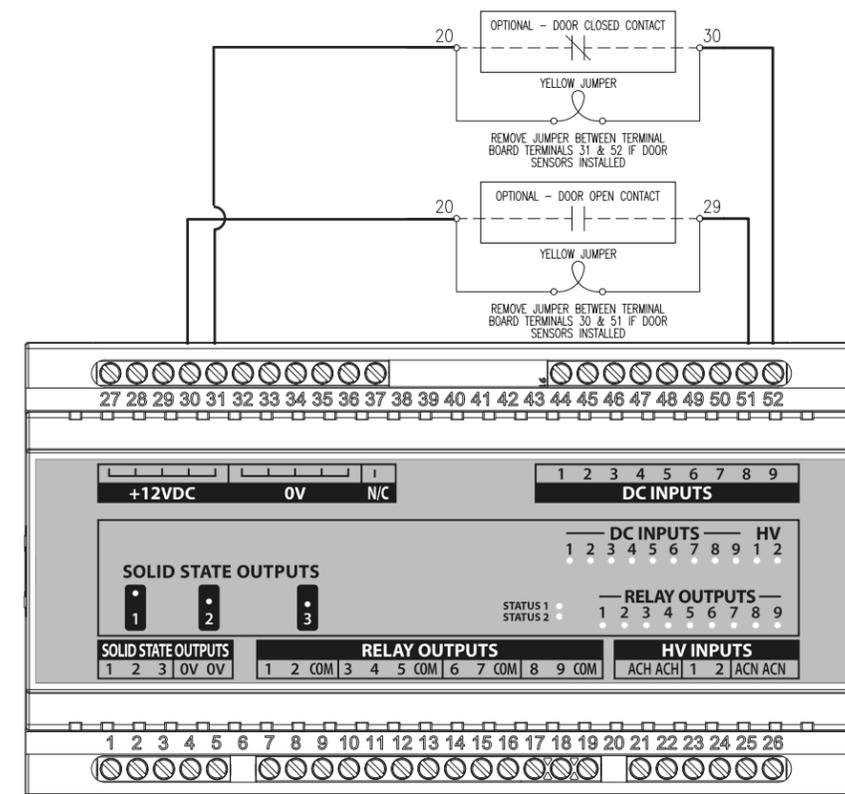**Figure 9**