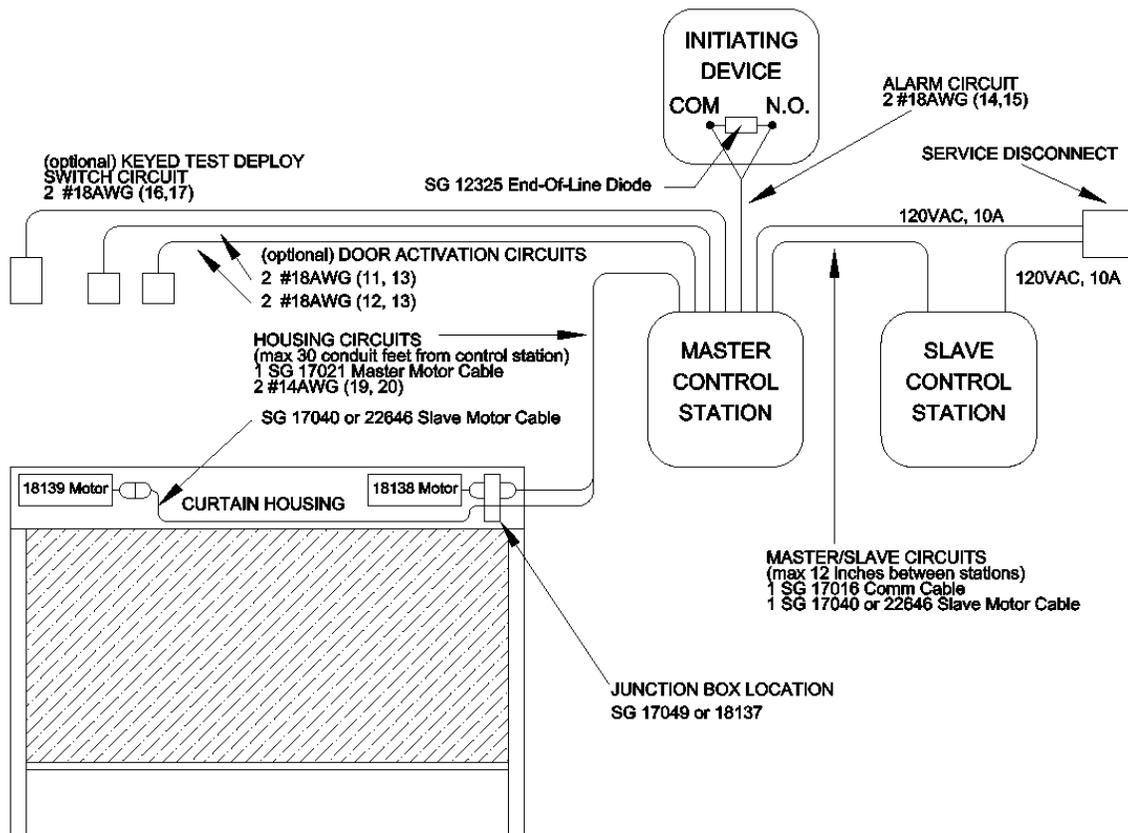




Model 2500 Electrician's Guide

Dual Motor Configuration/14354 Controller

1. Install END-OF-LINE DIODE (furnished by Smoke Guard) at the INITIATING DEVICE.
2. Provide ALARM CIRCUIT from INITIATING DEVICE to MASTER CONTROL STATION.
3. Provide SERVICE DISCONNECT SWITCH and 120VAC to MASTER and SLAVE CONTROL STATIONS. (10A max)
4. Provide HOUSING CIRCUITS from MASTER CONTROL STATION to curtain HOUSING.
5. Provide conduit from MASTER CONTROL to SLAVE CONTROL.
6. Provide optional KEYED TEST DEPLOY SWITCH, and DOOR ACTIVATION SWITCH circuits as required.



This product is intended to be installed in accordance with the National Electric Code NFPA 70, National Alarm Code NFPA 72 and within the limits of the authority having jurisdiction.

Electrical Contractor Main Responsibilities

Alarm circuit

- Provide a conduit as required to connect two 18 or 20 AWG stranded wires between the control station low voltage compartment and the initiating device. Label the wires 14 and 15.
- At the building alarm device, connect the wires between the normally open contacts in parallel with Smoke Guard EOL-Diode, P/N 12325. Order of wires does not matter.

120 VAC

- Install main power wiring through a ½” conduit into each control station high voltage compartment. Connect L, N and GND to terminal block.
- Provide service disconnect switch near control station.

Housing circuits

- Master control station must be within 30 conduit feet of junction box (17049/18137).
- Master (18244/18276) and slave (18245) control stations should be mounted adjacently within 24” of each other. Provide ¾” conduit between housings using lowest side knockout in battery compartment.
- Provide ¾” conduit between the master control station and the right side of housing to mate with housing junction box (17049/18137).
- At the master control station, use the ¾” knockout at the low voltage compartment. Flexible conduit at the housing will ease installation.
- At housing junction box pull free end of Cable 17021 to master control station. Mate cable P1 to junction box P2. Mate junction box P2 to master motor P1. (Note: Do not connect cable 17021 directly to motor, always include junction box.)
- Butt splice up limit wires to master motor up limit cable, order does not matter. Secure wiring with cable mounts and ties.
- Connect Cable 17040/22646 to slave motor P1. Route cable to junction box along housing rear and secure to gussets with zip ties. Insert grommet into suitable knockout and feed cable back to control stations.

Optional keyed test deploy switch circuit

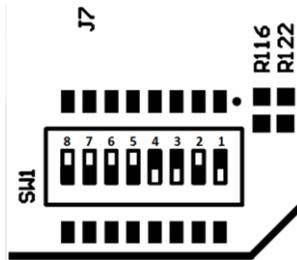
- Provide junction box and ¾” conduit between the keyed test deploy switch and the control station.
- Provide two 18 or 20 AWG stranded wires labeled 16 and 17.

Optional door activation switch circuit(s)

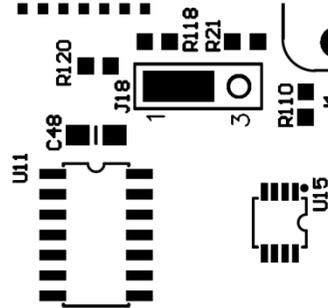
- Provide junction box and ¾” conduit between the door activation switch(es) and the control station.
- Provide two 18 or 20 AWG stranded wires for each switch
 - first switch: labeled 11 and 13 (ground)
 - second switch: labeled 12 and 13 (ground)

Master Control Station (18244/18276 Configuration)

Verify that the configuration switches SW1 are set as illustrated:



Verify that the current limit trip jumper J18 is set for 25A power supply as follows:



Required terminal connections

Terminate cable 17021 and low voltage wiring at master terminal blocks as follows:

wire	terminal
1 (RED)	1) MOTOR +
2 (BLK)	2) MOTOR -
3 (RED)	3) +24V
4 (BLK)	4) COMMON
5 (WHT)	5) BRAKE

wire	terminal
6 (GRN)	6) SENSOR POWER
7 (ORG)	7) SENSOR SIGNAL
8 (BLU)	8) UP LIMIT
14	14) SMOKE DET/FIRE ALARM +
15	15) SMOKE DET/FIRE ALARM -

Optional terminal connections

Edge sensor

wire	terminal
9 (BRN)	9) EDGE SENSOR

Down limit (FSCS control)

wire	terminal
10	10) DOWN LIMIT

Key test deploy switch

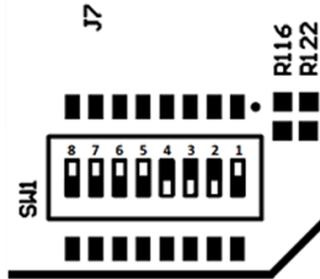
wire	terminal
16	16) WALL SWITCH +
17	17) WALL SWITCH -
Wire the wall switch NORMALLY OPEN. Land the two wires from the wall switch at WALL SWITCH+ and WALL SWITCH-	

Door activation switches

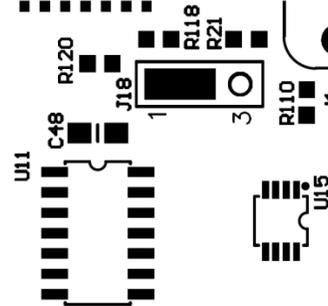
wire	terminal description
11	11) DOOR ACTIVATION 1
12	12) DOOR ACTIVATION 2
13	13) GND
Wire the wall switch NORMALLY OPEN. Land the two wires from the wall switch at DOOR ACTIVATION1 and DOOR ACTIVATION 2.	

Slave Control Station (18245 Configuration)

Verify that the configuration switches SW1 are set as illustrated:



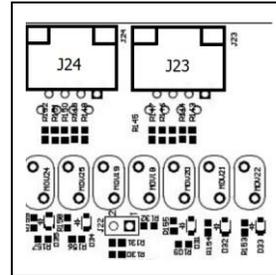
Verify that the current limit trip jumper J18 is set for 25A power supply as follows:



Required terminal connections

Route slave motor cable 17040/22646 to slave controller and terminate as follows:

wire	terminal description
19 (RED)	1) MOTOR +
20 (BLK)	2) MOTOR -
3 (RED)	3) +24V
5 (BLK)	5) BRAKE



Feed Master/Slave Cable (part number 17016) through the 1" conduit between master and slave boxes. At master: install connector at PCA J23. At slave: install connector at J24.

Wiring at the Optional Switches

Keyed test deploy switch (optional)

At the keyed wall switch, connect the wires between the normally open contacts. Order of wires does not matter.

Door activation switch(es) (optional)

At the door activation switch(es), connect the wires between the normally open contacts. Order of wires does not matter.

Install Batteries in Control Stations (required final step)

Perform just prior to initial power on and calibration:

- Connect battery cable positive terminal to the positive terminal of the first battery.
- Connect battery cable negative terminal to the negative terminal of the second battery.
- Connect battery jumper cable between the negative terminal of first battery and the positive terminal of the second battery