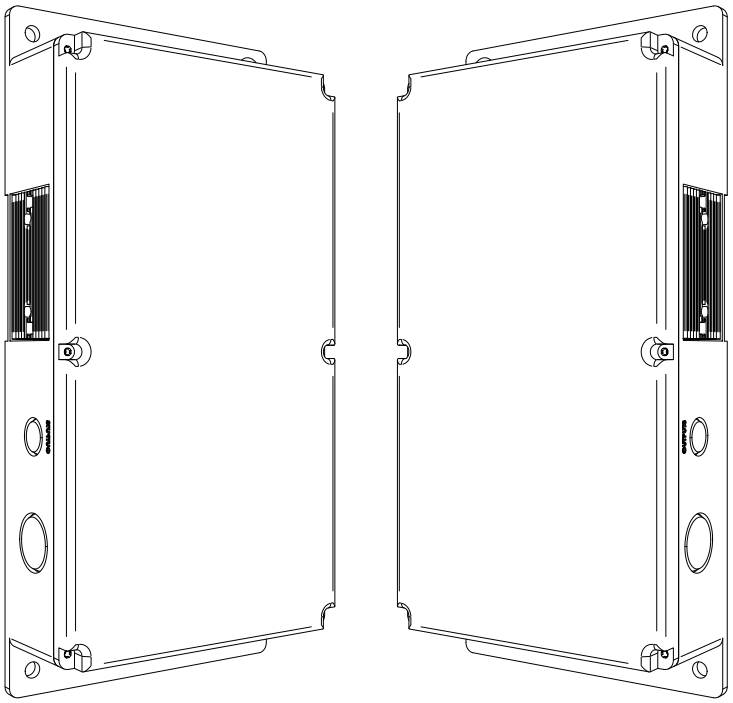
266-EN



WIRELESS CONTROLLER & BRIDGE INSTALLATION & INTERFACE GUIDE GEN 2

PEELLE®

THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

Guide No. 266-EN

WIRELESS CONTROLLER & BRIDGE
INSTALLATION & INTERFACE GUIDE

Date: MAR / 2023

Contents

1.0 SAFETY WARNING

Electrical Hazard Warning Symbol – Failure to observe this warning could result in electrical shock or electrocution.

Operational Hazard Warning Symbol – Failure to observe this warning could result in dangerous or unsafe conditions.

Installation Note: This product should be installed and serviced by a qualified elevator technician familiar with its operation and hazards involved. Proper safety procedures must be followed when working with this controller during installation and with control under power. Proper shielding and grounding of this product is necessary to reduce the emissions of radio frequency interference (RFI) which may adversely affect sensitive electronic equipment.

Electrical Wiring: Wire controller in accordance with the National Electrical Code, Canadian Electrical Code, European Norms and/or any other local codes that apply.

General Contractor Note: A separate fuse disconnect switch is required for the door controllers. See job specific wiring diagrams for disconnect and fuse requirements.

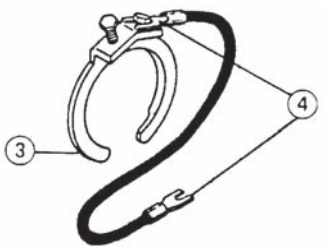
Enclosure Conduit Connections

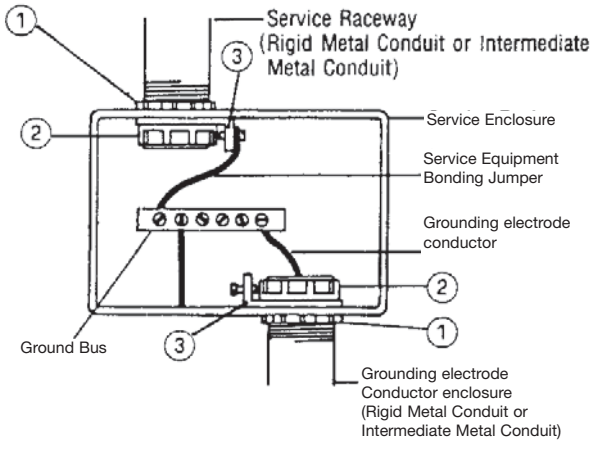
TYPE 1, 4 & 4X
(Indoor Use Only)

CAUTION
Non-metallic enclosure does not provide grounding between conduit connections. Use grounding bushing and jumping wires.
WARNING
Do not mount controller on or above a combustible surface.

The conduit hubs are to be connected to the conduit before being connected to the enclosure.
To maintain the environmental rating of this enclosure, install in any openings only listed or recognized conduit hubs with the same environmental ratings as required, in compliance with the installation instructions of the device.

T&B Series 3651
Bonding & Grounding Wedge

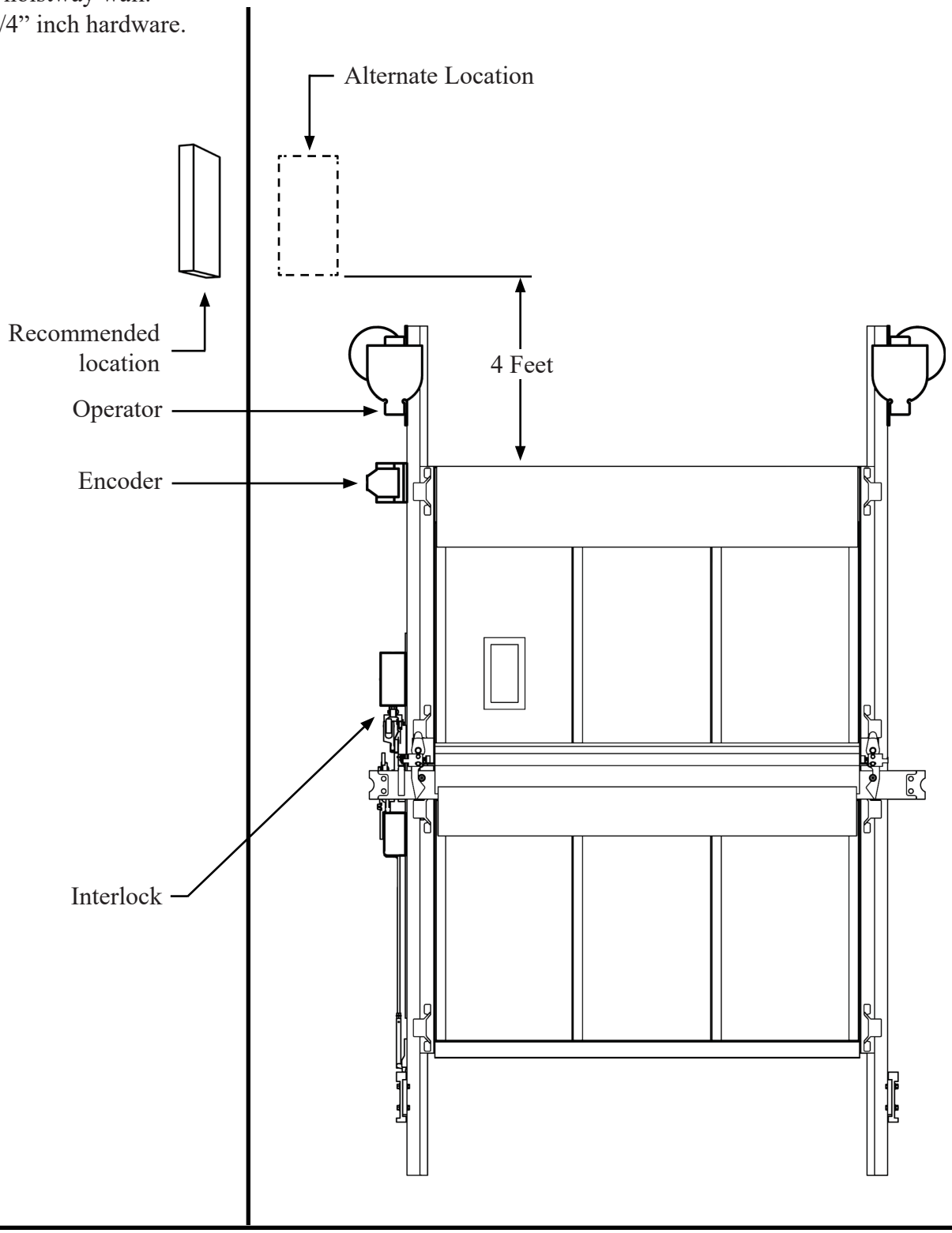




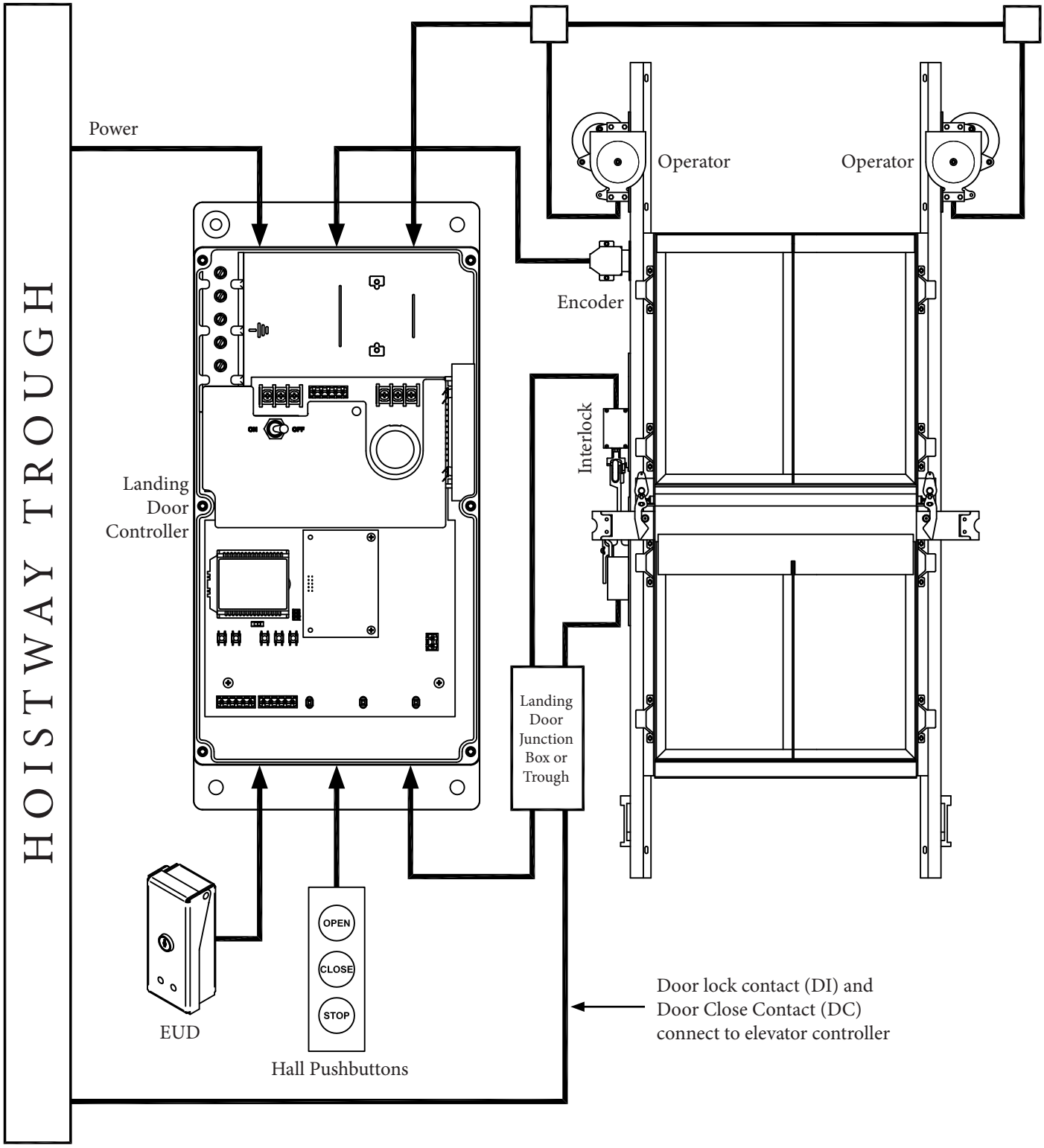
2.0 LANDING DOOR CONTROLLER INSTALLATION

2.1 LANDING DOOR CONTROLLER MOUNTING

Mount the Landing door Controller
to the hoistway wall.
Use 1/4” inch hardware.



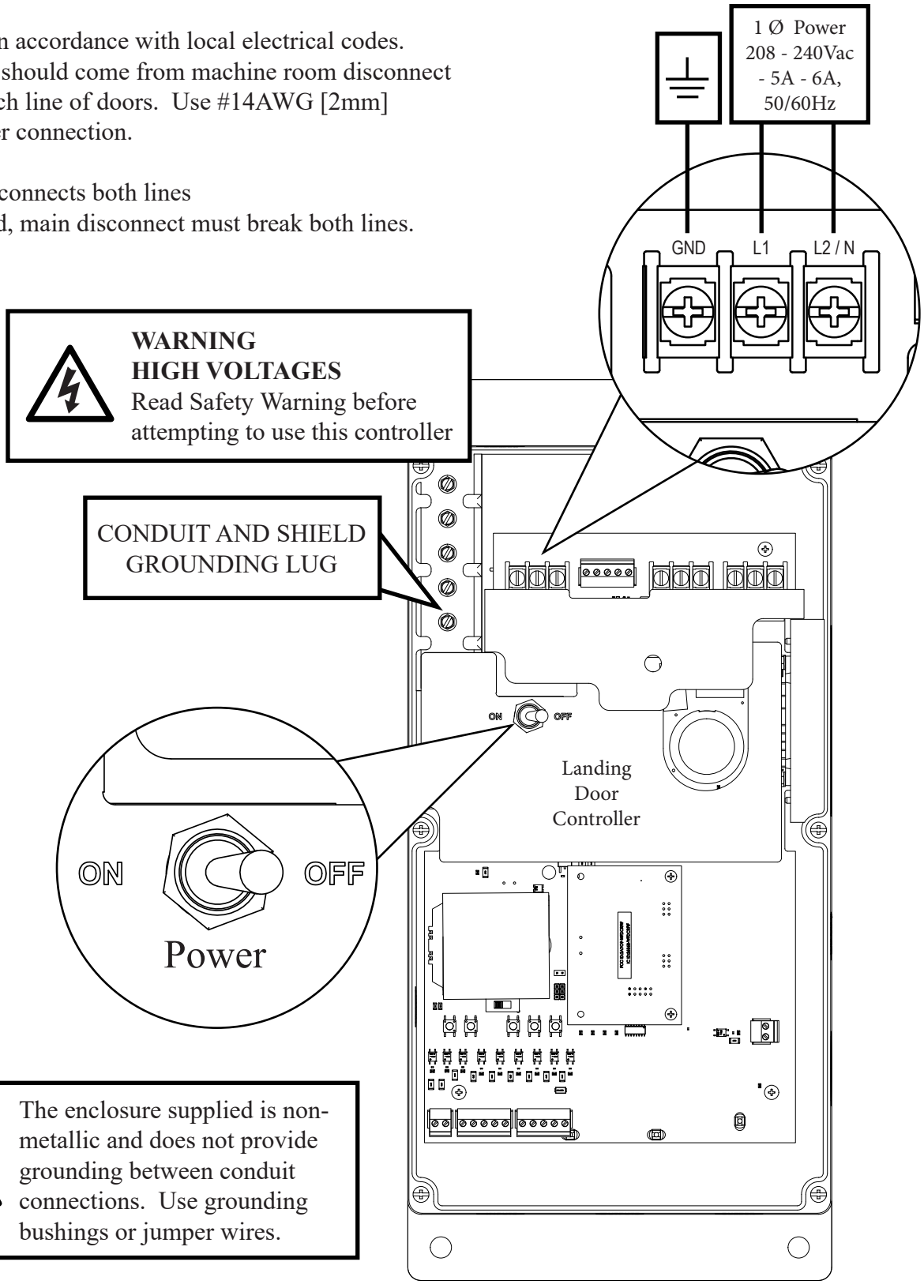
2.2 LANDING DOOR WIRING LAYOUT - STANDARD OPERATORS (OPTION)



2.3 LANDING DOOR POWER CONNECTIONS

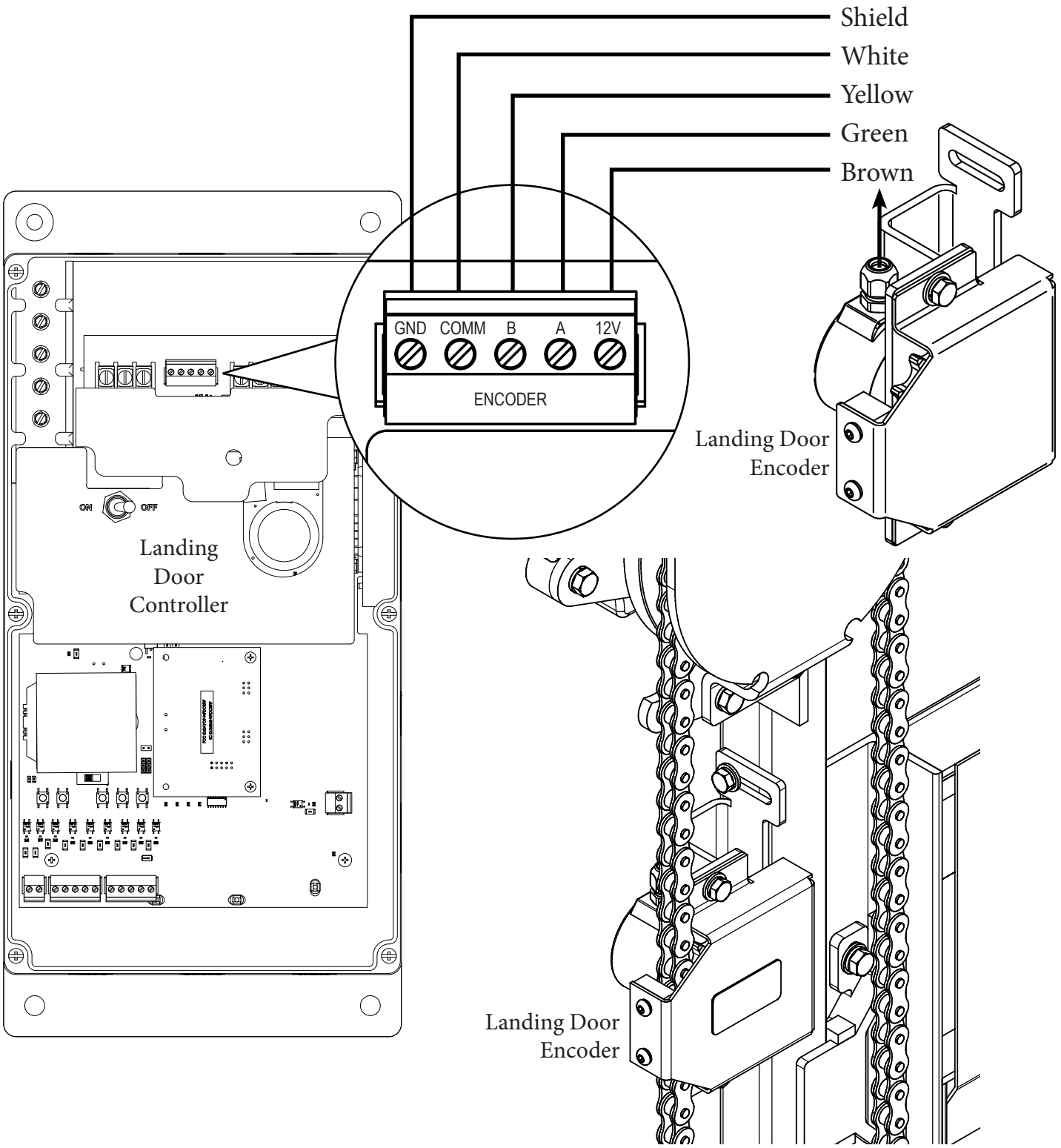
Connect controllers in accordance with local electrical codes. Power branch circuit should come from machine room disconnect 10 amp circuit for each line of doors. Use #14AWG [2mm] copper wire for power connection.

- ON/OFF switch disconnects both lines
- If neutral is not used, main disconnect must break both lines.



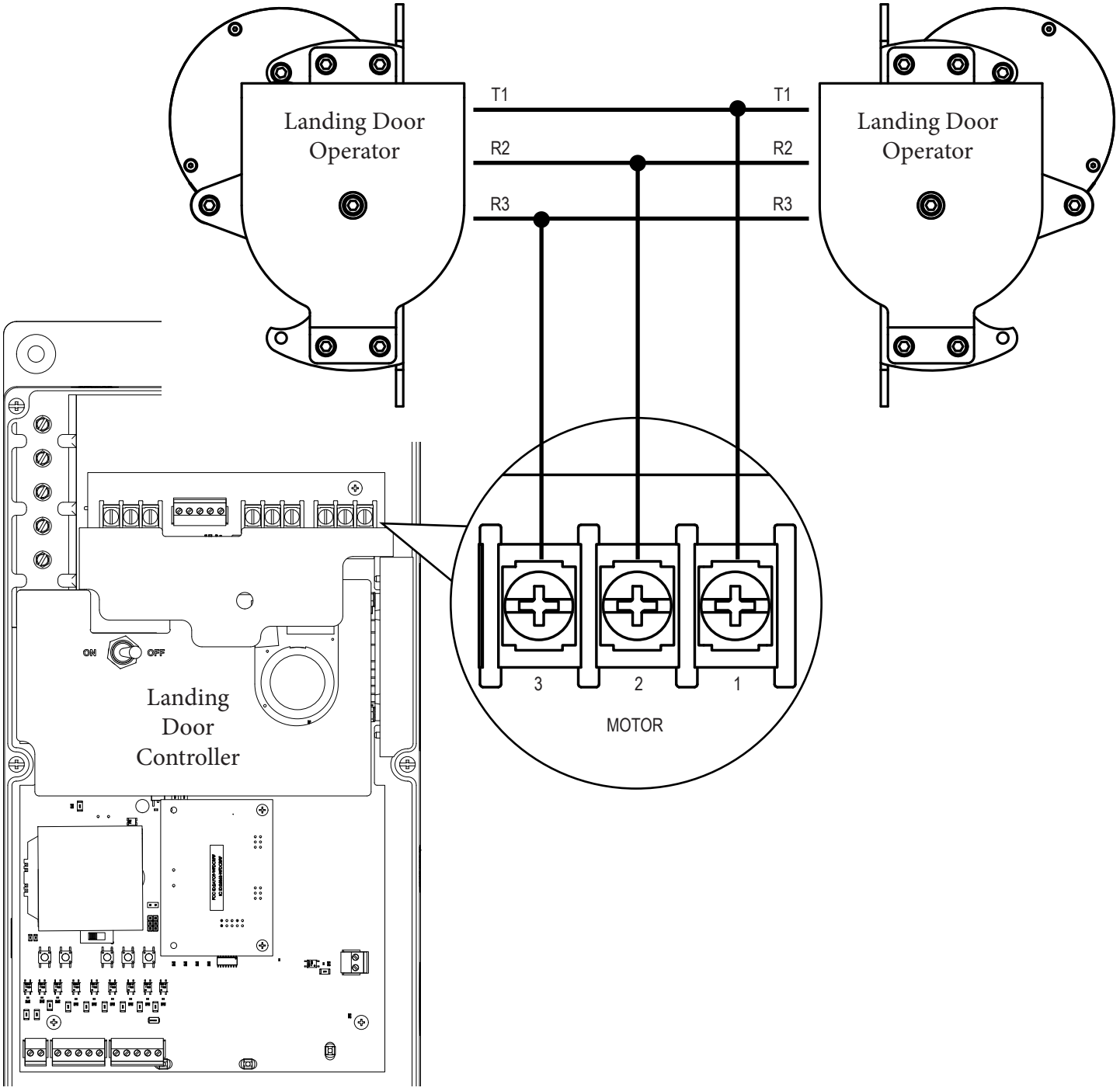
2.4 LANDING DOOR ENCODER

Install and wire encoder same side as the controller. Do not extend the encoder wire.



2.5 LANDING DOOR OPERATORS - STANDARD OPERATORS

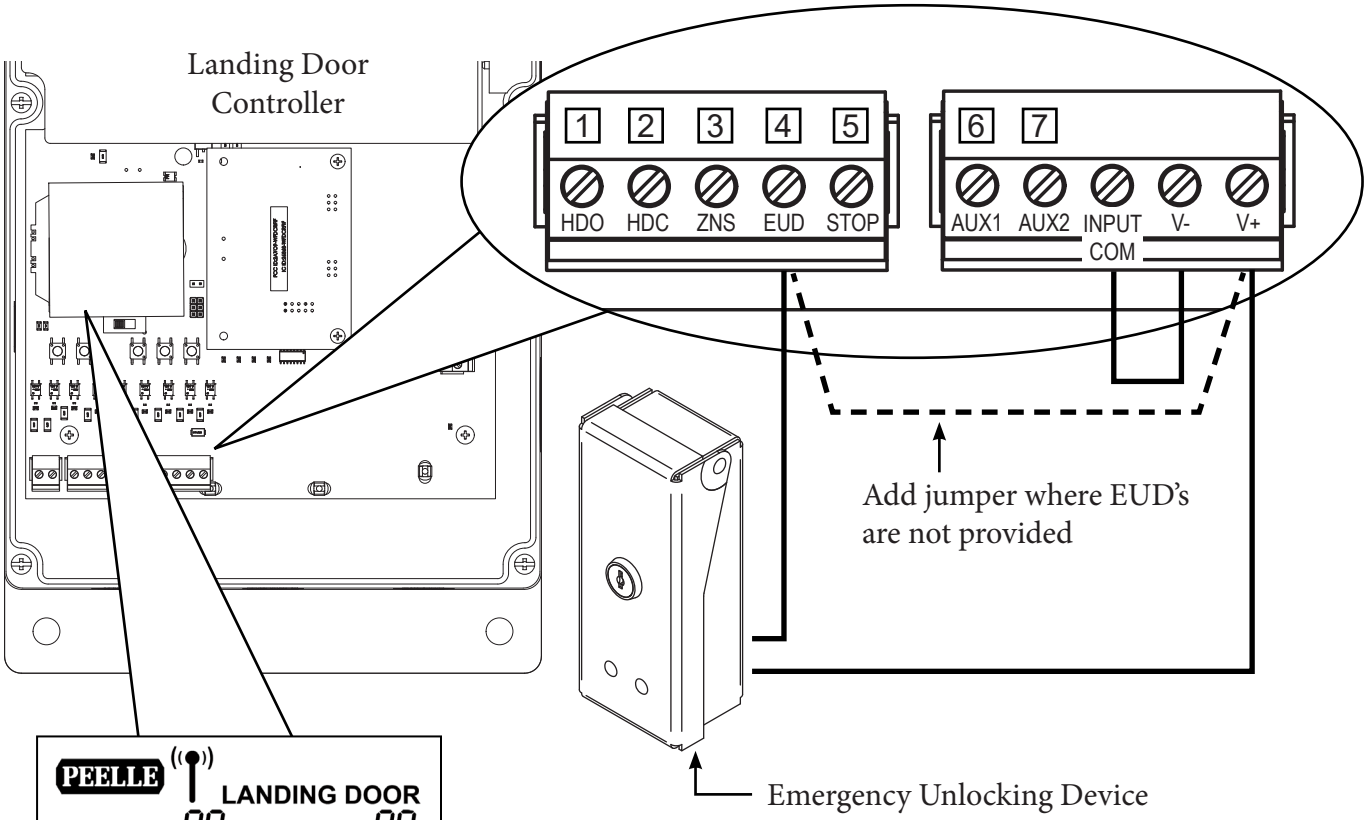
Wire both door motors in parallel. Use #18AWG [1mm] wire in conduit for motor connection. Do not combine motor wires with control wires in same conduit.
Note: Low speed winding is not used. Cap black wires separately (R4-R5).

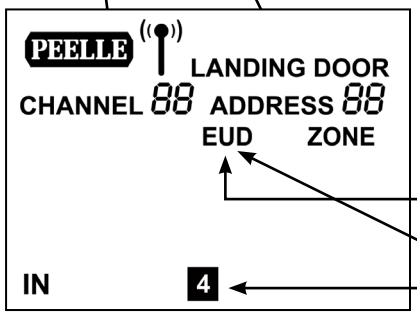


2.6 LANDING DOOR EMERGENCY UNLOCKING DEVICE (EUD)

The Emergency Unlocking Device is located on the landing side and contains a toggle switch which must be wired to the controller.

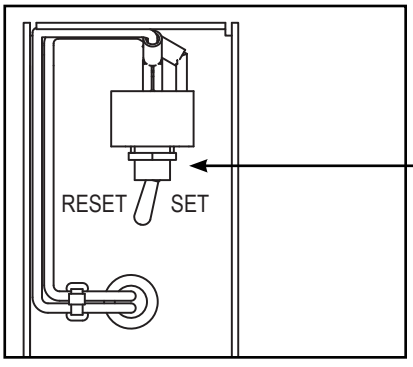
NOTE: Only in jurisdictions not requiring unlocking devices, a jumper needs to but added in lieu of the EUD switch.





The EUD indicator will flash ON all controllers in that channel to indicate there is a EUD STOP at another floor.

The EUD and input indicator 4 will go ON solid when the EUD switch is in the STOP position (activated) for the door connected to that controller.



For automatic door operation, ALL the EUD switches have to be in the RUN position as shown.

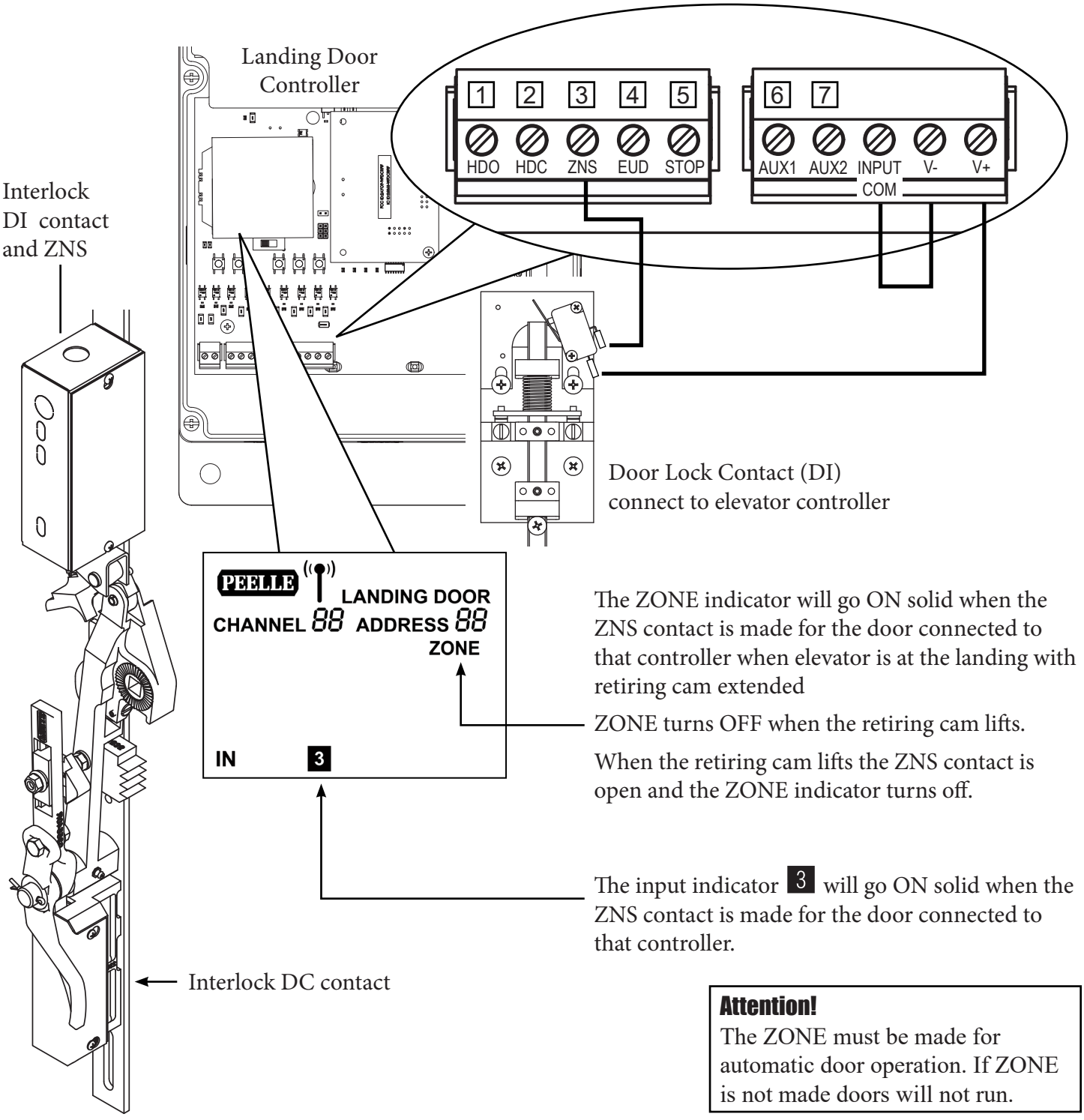
(RUN is normally closed)

Attention!
Three quick buzzer outputs (from car controller) indicates the EUD is set on that channel

Attention!
When EUD is STOP (at any floor) All doors on the same channel will not run.

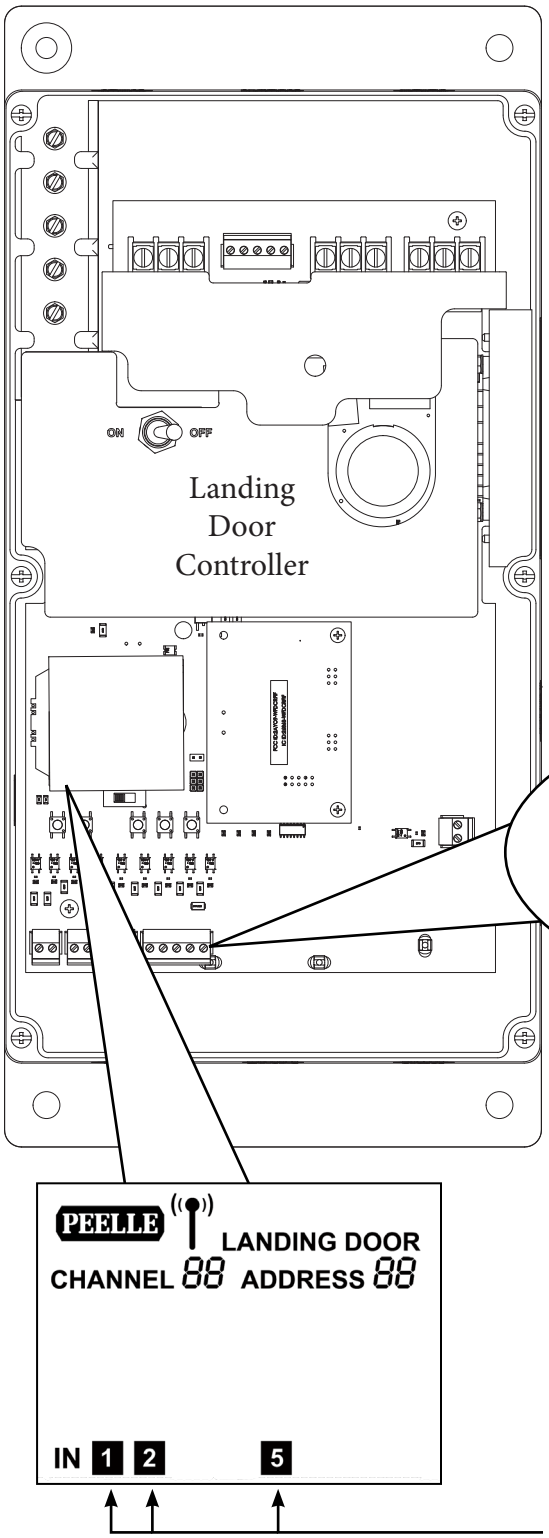
2.7 LANDING DOOR ZONE SWITCH (ZNS)

The landing door Zone Switch located in top of interlock box activates the controller for the Landing door at which the elevator car is located.



Attention!
The ZONE must be made for automatic door operation. If ZONE is not made doors will not run.

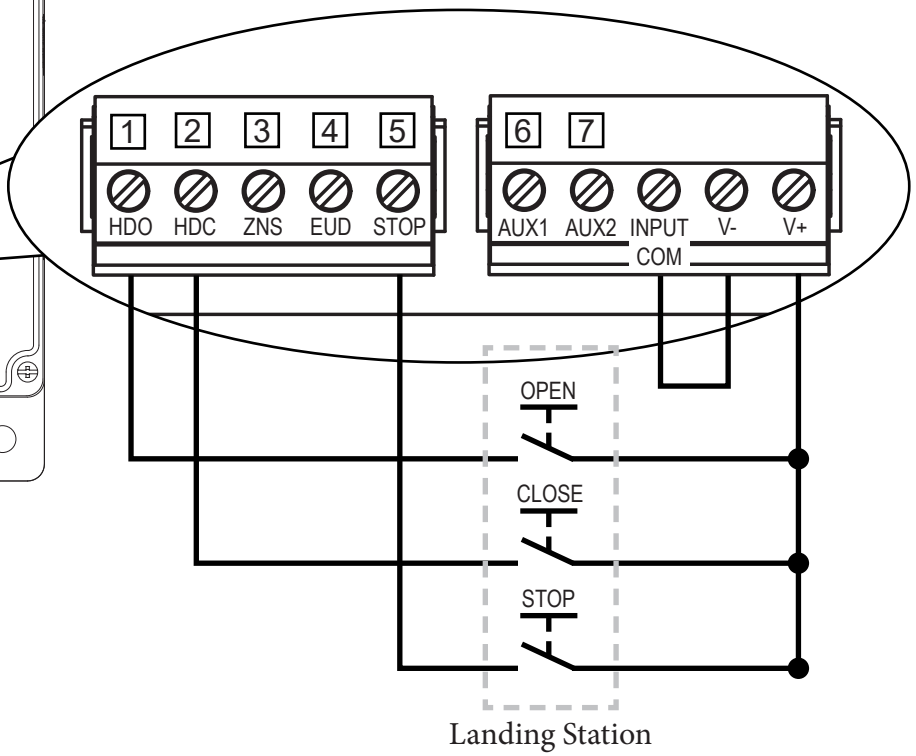
2.8 LANDING DOOR HALL PUSHBUTTONS



HALL DOOR OPEN BUTTON (HDO) 1
Where provided, wire landing station door OPEN pushbuttons as shown. When elevator car is within landing ZONE, pushbutton inputs will be transmitted to the Car Door controller for connection to elevator control.

HALL DOOR CLOSE BUTTON (HDC) 2
Where provided, wire landing station door CLOSE pushbutton as shown. When elevator car is within floor ZONE, pushbutton inputs will be transmitted to the Car Door controller for connection to elevator control.

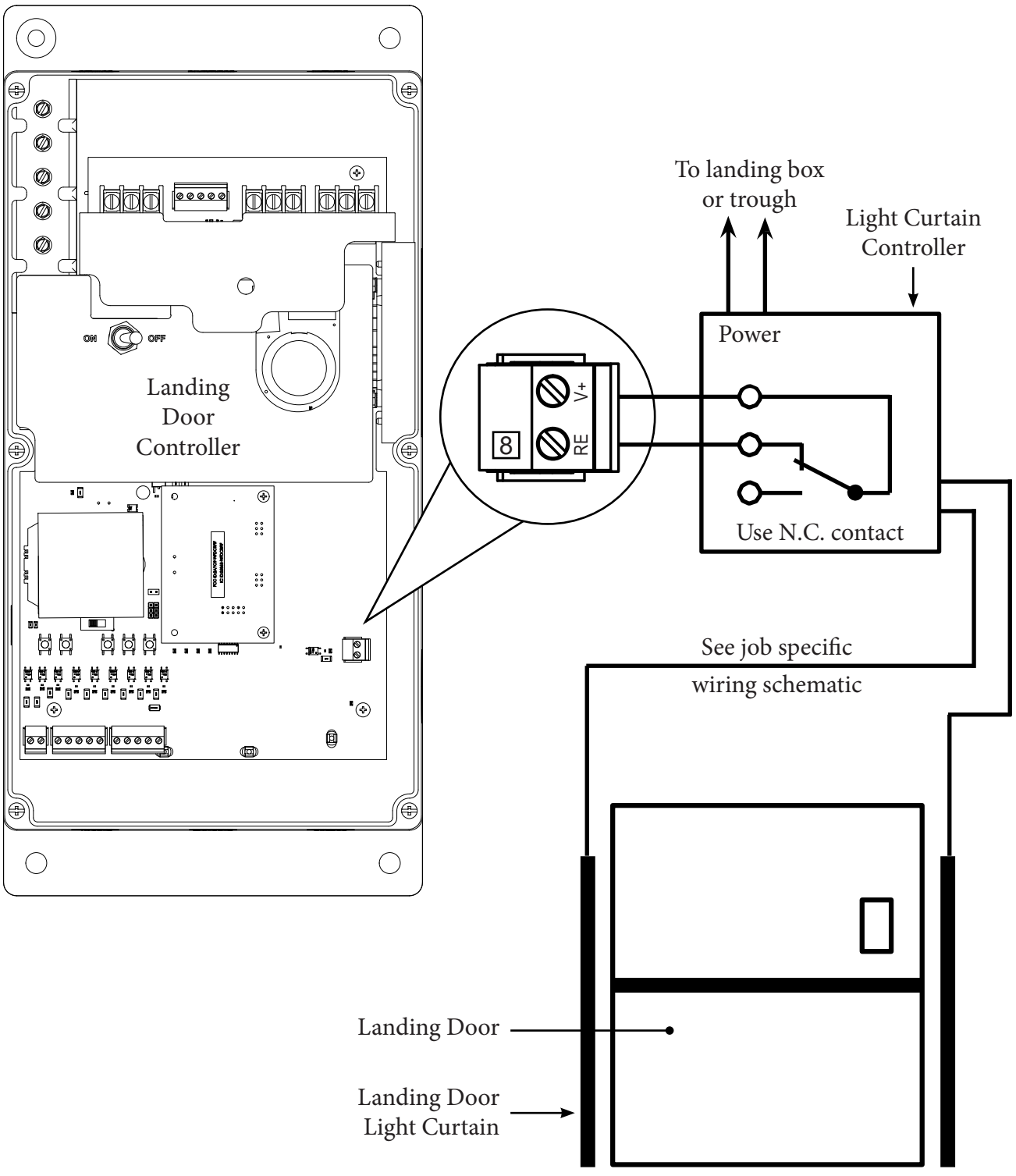
DOOR STOP BUTTON (STOP) 5
Where provided, wire landing station door STOP pushbutton as shown. The door STOP button should be normally open (NO). If normally closed (NC) set parameter 96 to 01. See DOOR STOP output for connection to elevator control.



The input indicators 1 2 and 5 will go ON when the pushbutton is activated for the door connected to that controller.

2.9 LANDING DOOR LIGHT CURTAIN (OPTIONAL)

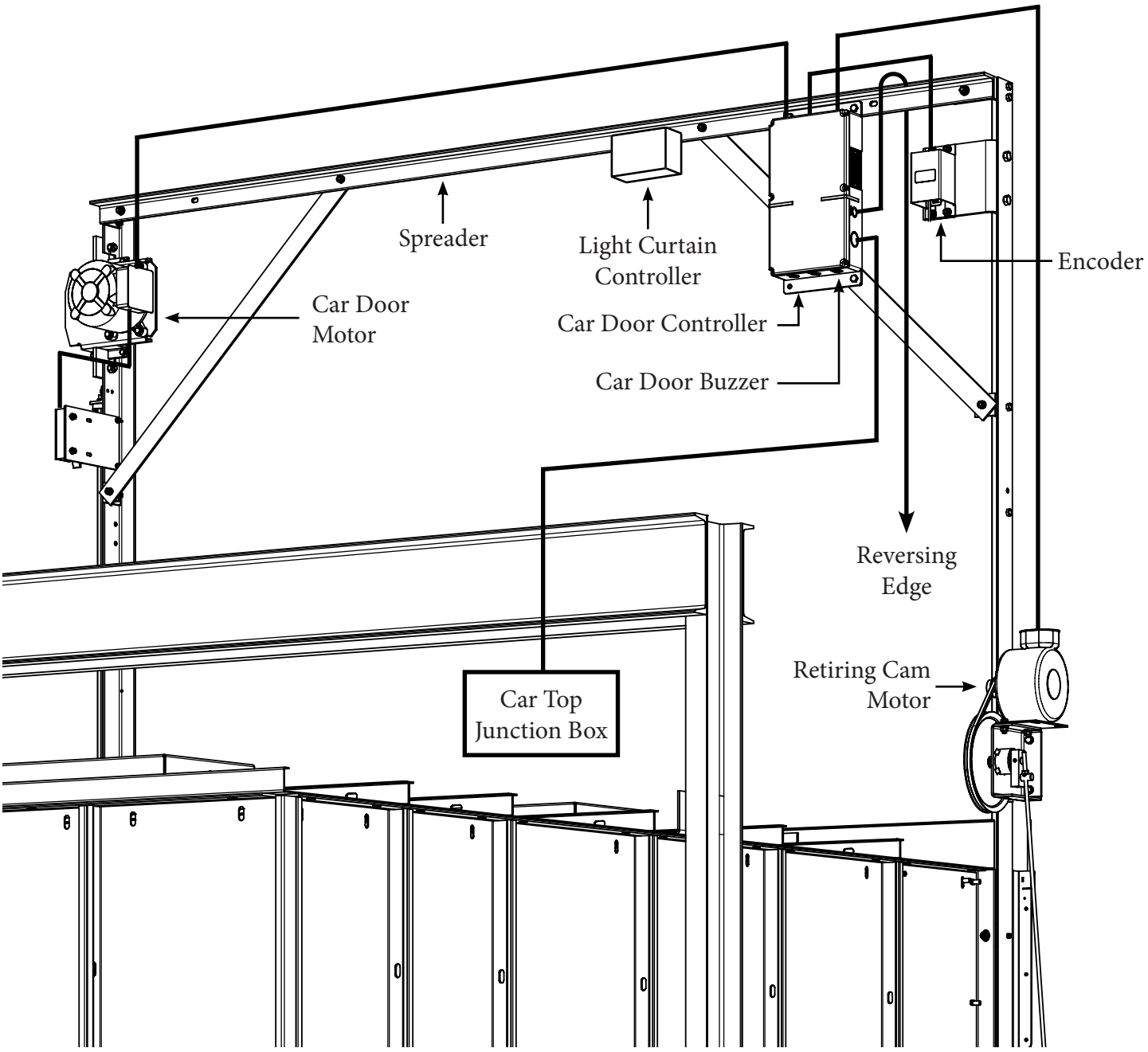
Install and wire Landing Door Light Curtain where provided.
Note: V+ to RE contact must close when beams are blocked



3.0 CAR DOOR (GATE) CONTROLLER INSTALLATION

3.1 CAR DOOR LOCATION AND WIRING LAYOUT

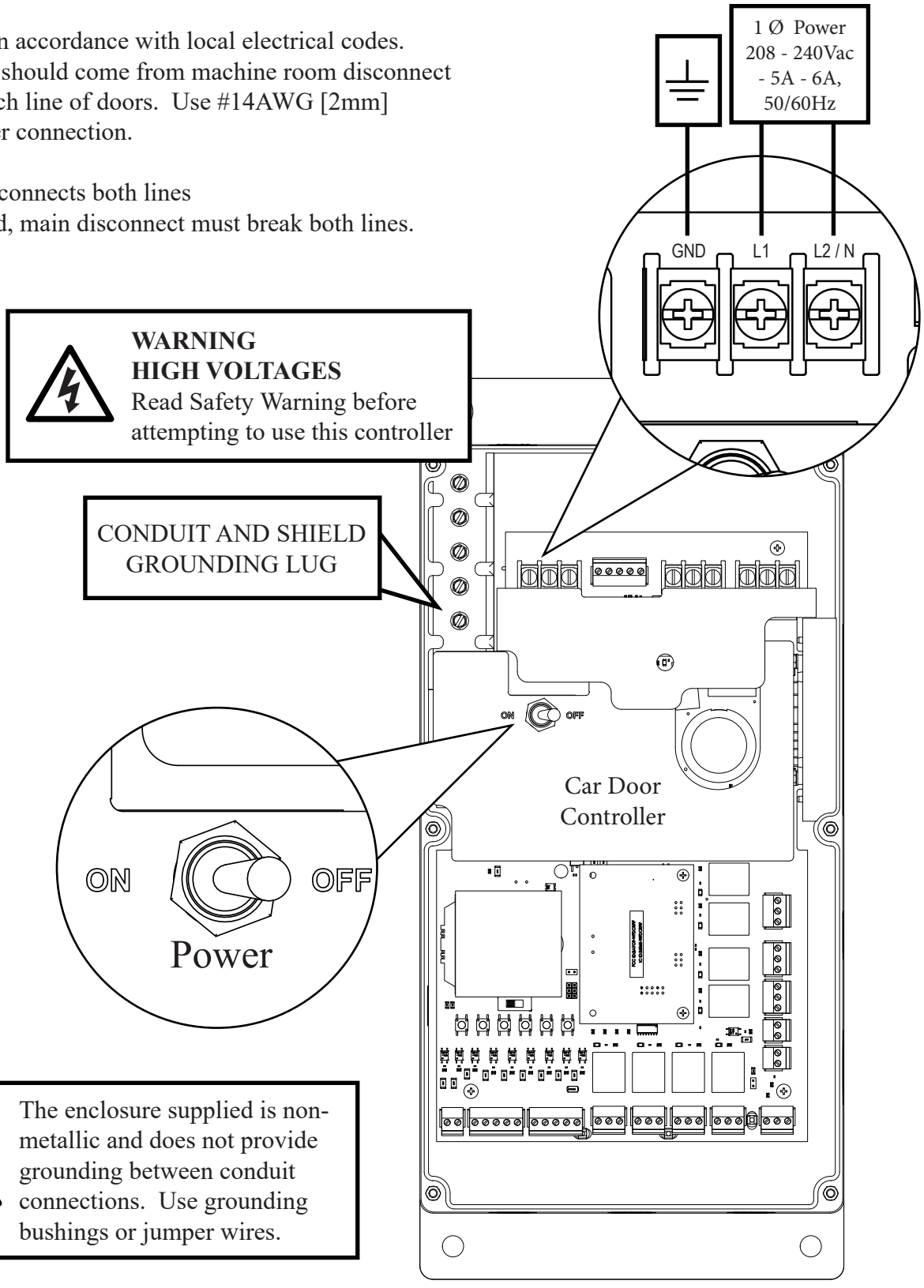
Mount the Car Door Controller to the car door rail spreader. Mount to same side as the Encoder. Use 1/4” Hardware.



3.2 CAR DOOR POWER CONNECTIONS

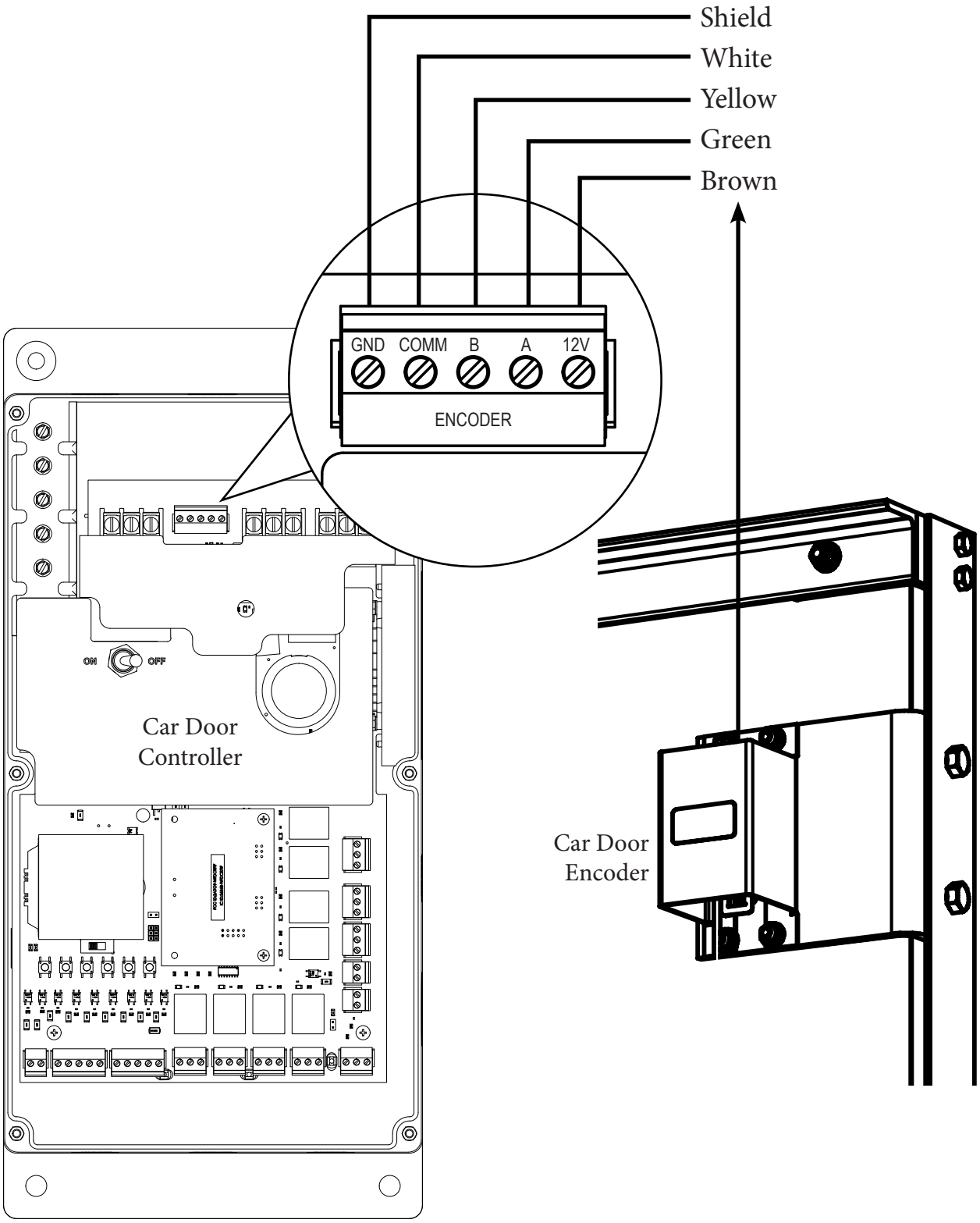
Connect controllers in accordance with local electrical codes. Power branch circuit should come from machine room disconnect 10 amp circuit for each line of doors. Use #14AWG [2mm] copper wire for power connection.

- ON/OFF switch disconnects both lines
- If neutral is not used, main disconnect must break both lines.



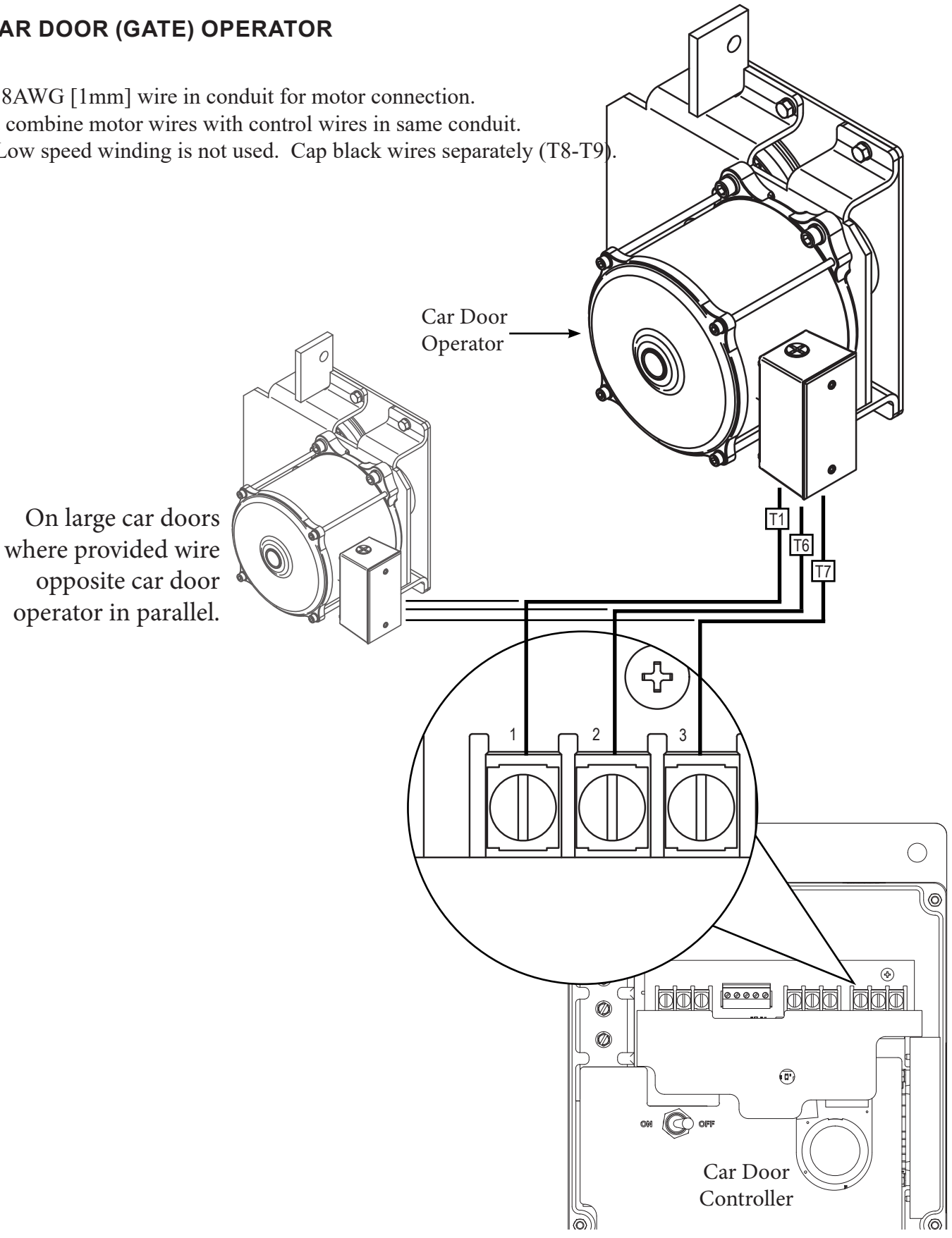
3.3 CAR DOOR ENCODER

Install and wire encoder. Do not extend the encoder wire.



3.4 CAR DOOR (GATE) OPERATOR

Use #18AWG [1mm] wire in conduit for motor connection.
Do not combine motor wires with control wires in same conduit.
Note: Low speed winding is not used. Cap black wires separately (T8-T9).

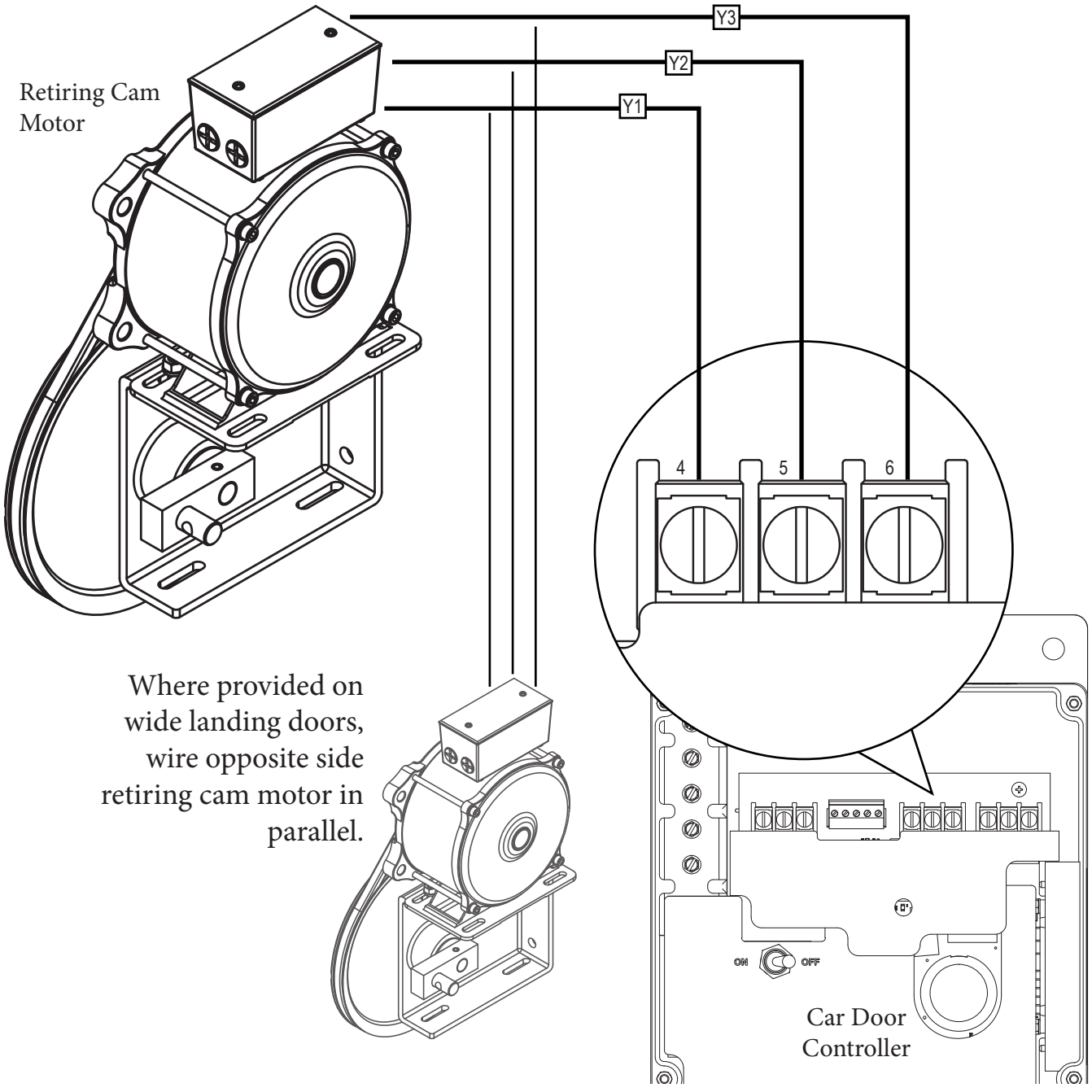


3.5 RETIRING CAM MOTOR

Use #18AWG [lmm] wire in conduit for motor connection.
Do not combine motor wires with control wires in same conduit.

Attention!
220 Volt 3 Ø Retiring Cam Motors Only

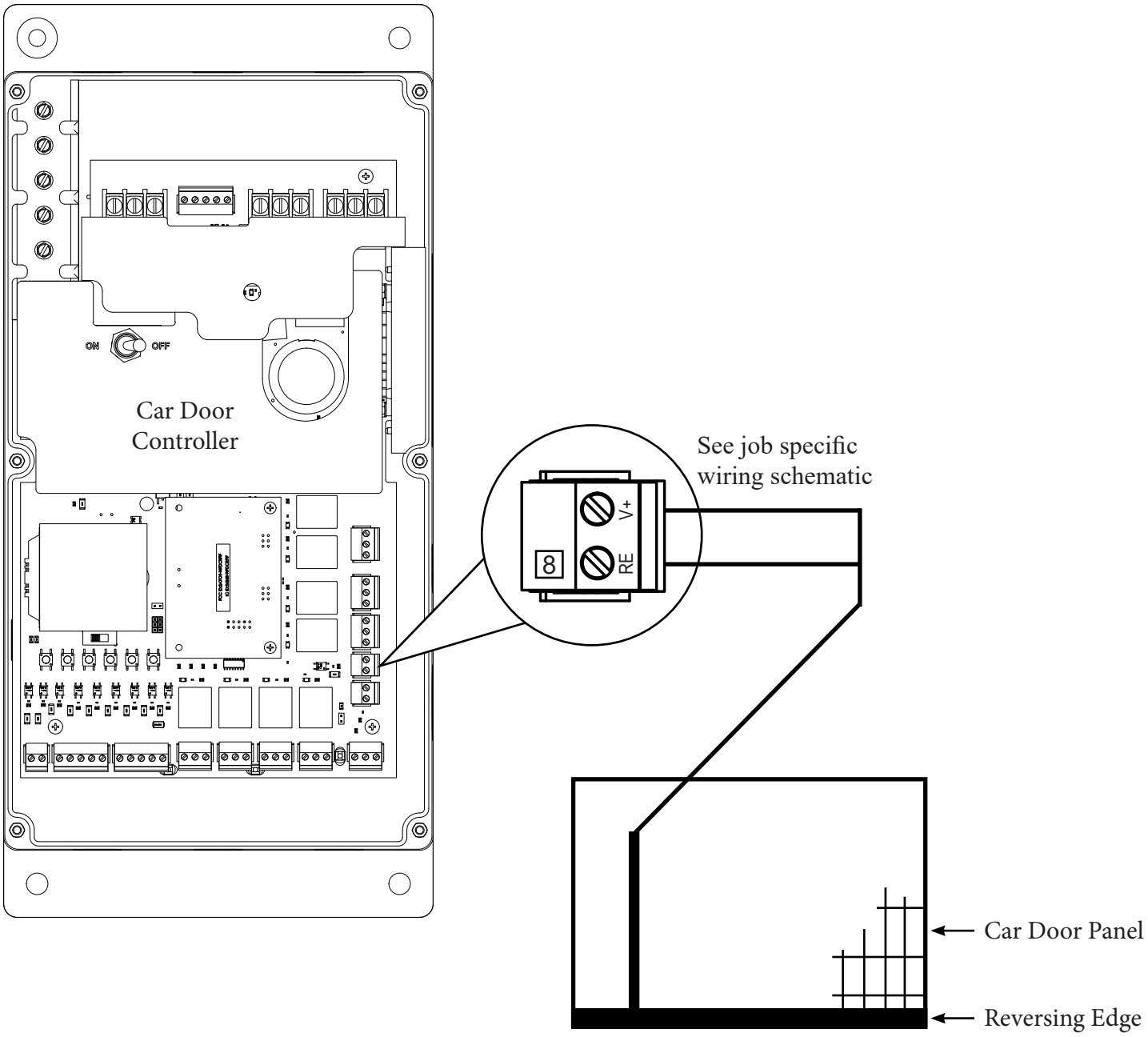
For 110 Volt 1 Ø Retiring Cam Motors for battery lowering see elevator control panel



3.6 CAR DOOR REVERSING EDGE (OPTIONAL)

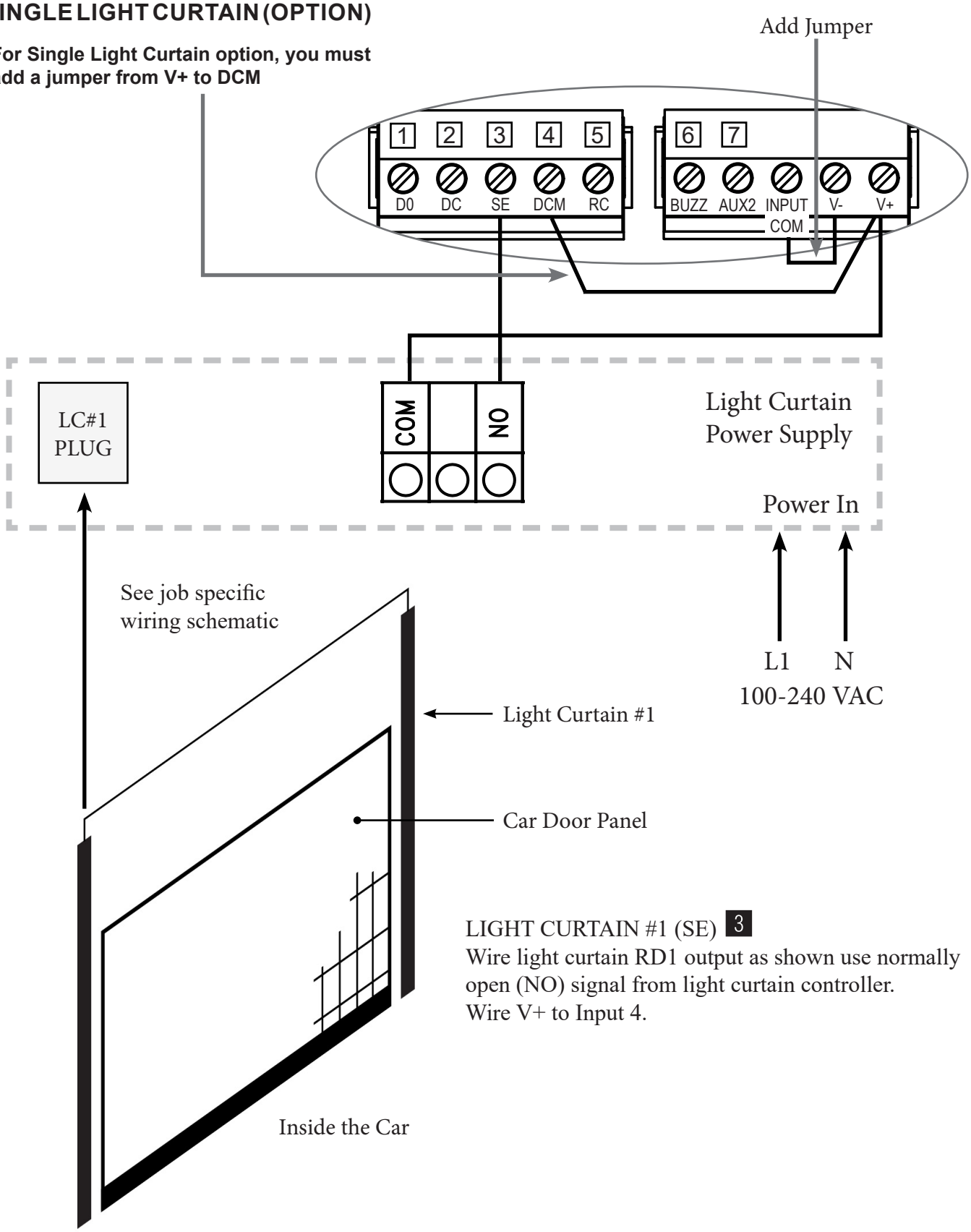
Wire reversing edge as shown where provided.

Note V+ to RE contact closes when reversing edge is obstructed.



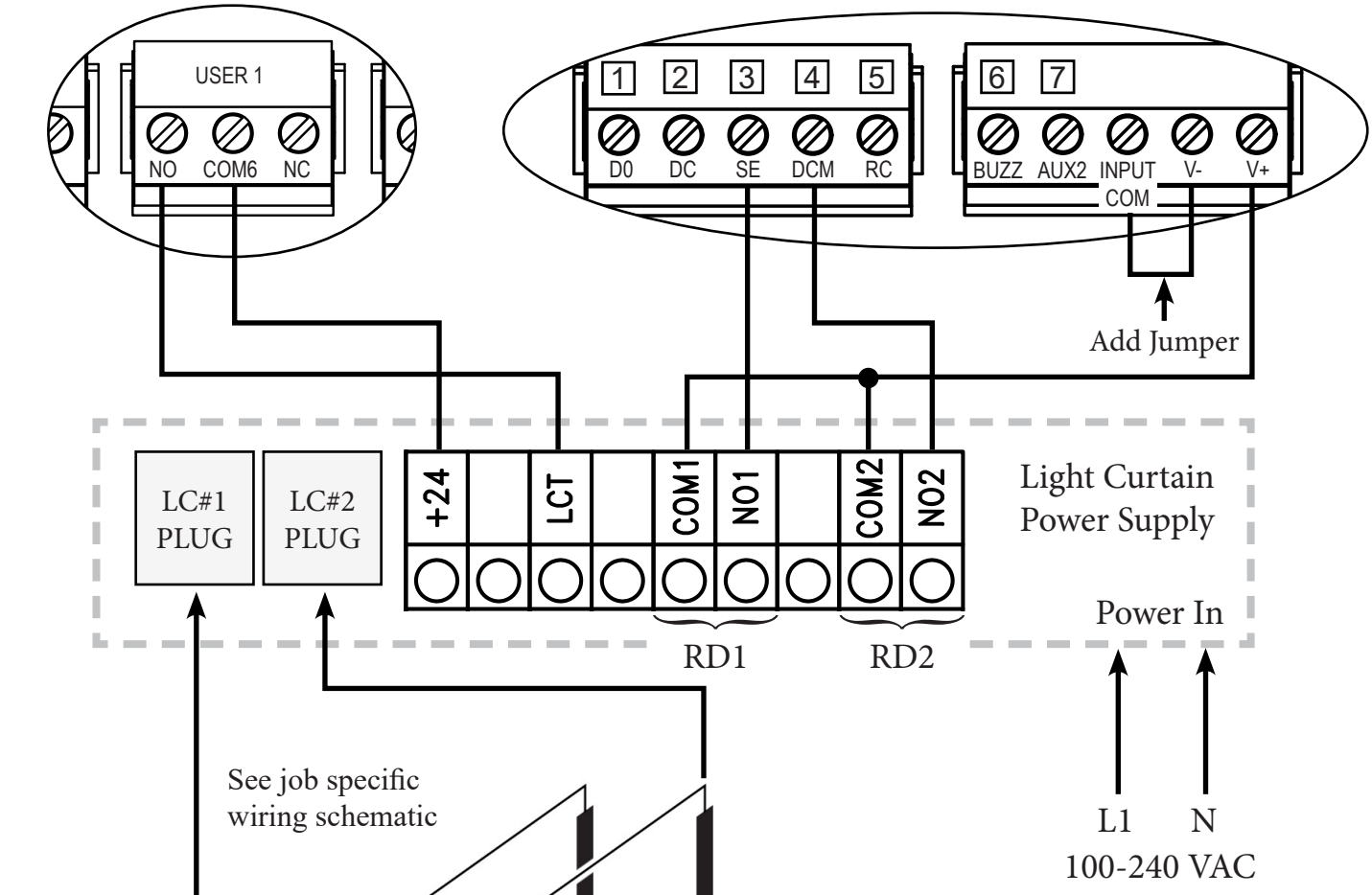
3.7 SINGLE LIGHT CURTAIN (OPTION)

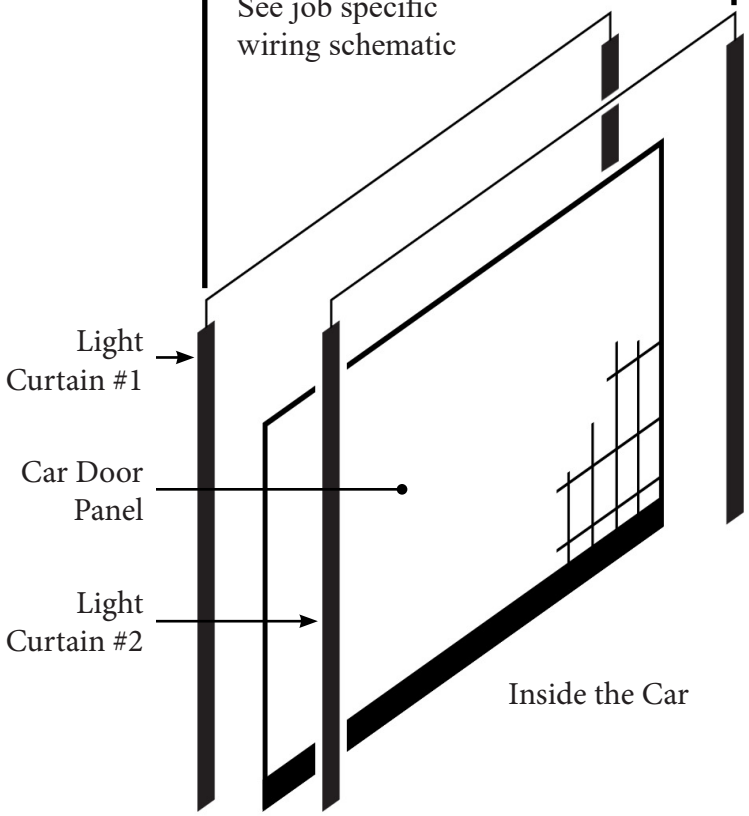
For Single Light Curtain option, you must add a jumper from V+ to DCM



LIGHT CURTAIN #1 (SE) 3
Wire light curtain RD1 output as shown use normally open (NO) signal from light curtain controller.
Wire V+ to Input 4.

3.8 DUAL LIGHT CURTAINS (OPTION)





LIGHT CURTAIN #1 (SE) 3
Wire light curtain RD1 output as shown use normally open (NO) signal from light curtain controller

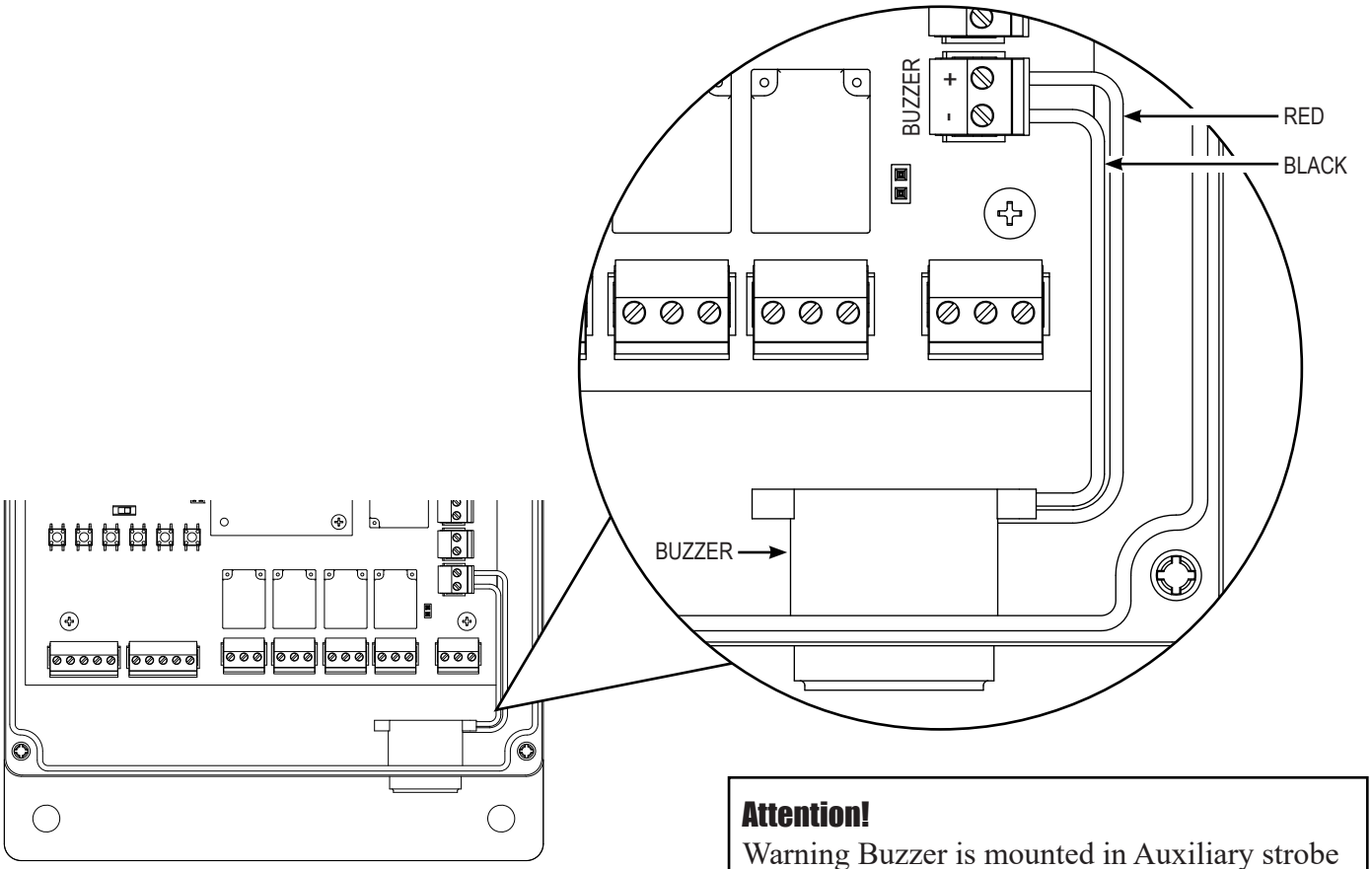
LIGHT CURTAIN #2 (DCM) 4
Wire light curtain RD2 output as shown. Use normally open (NO) signal from light curtain controller.

LIGHT CURTAIN TEST OUTPUT (USER 1)
Wire light curtain test as shown for dual light curtains. Use normally open (NO) from USER 1 relay output.

You must set parameter 65 to 07.

3.9 WARNING BUZZER

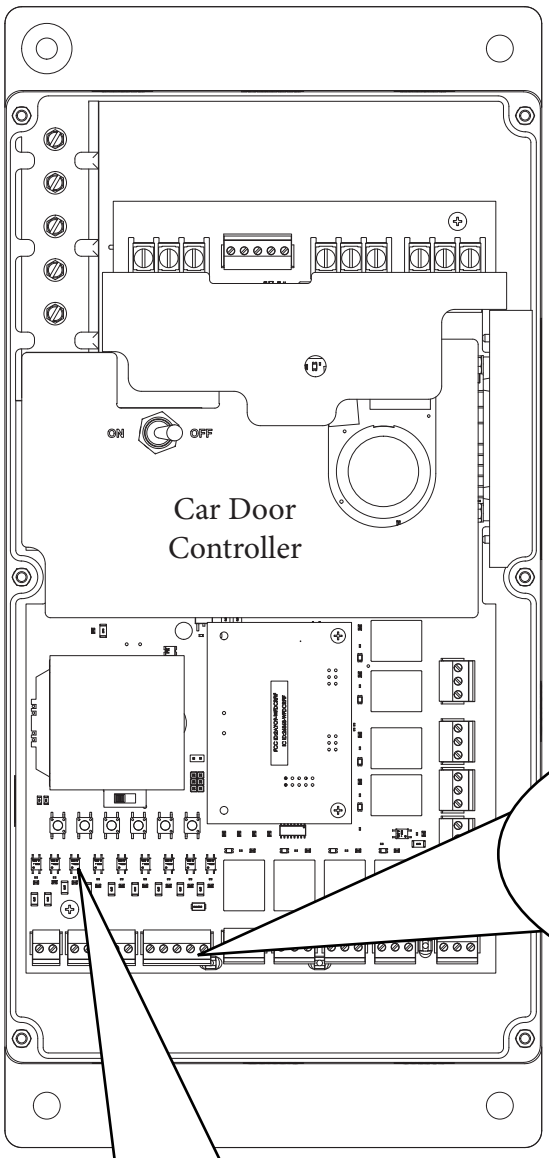
Install and wire door close warning buzzer as shown. See parameter 94 for constant or pulsing tone.



Car Door Controller

Attention!
Warning Buzzer is mounted in Auxiliary strobe controller (27465) if strobe light is provided

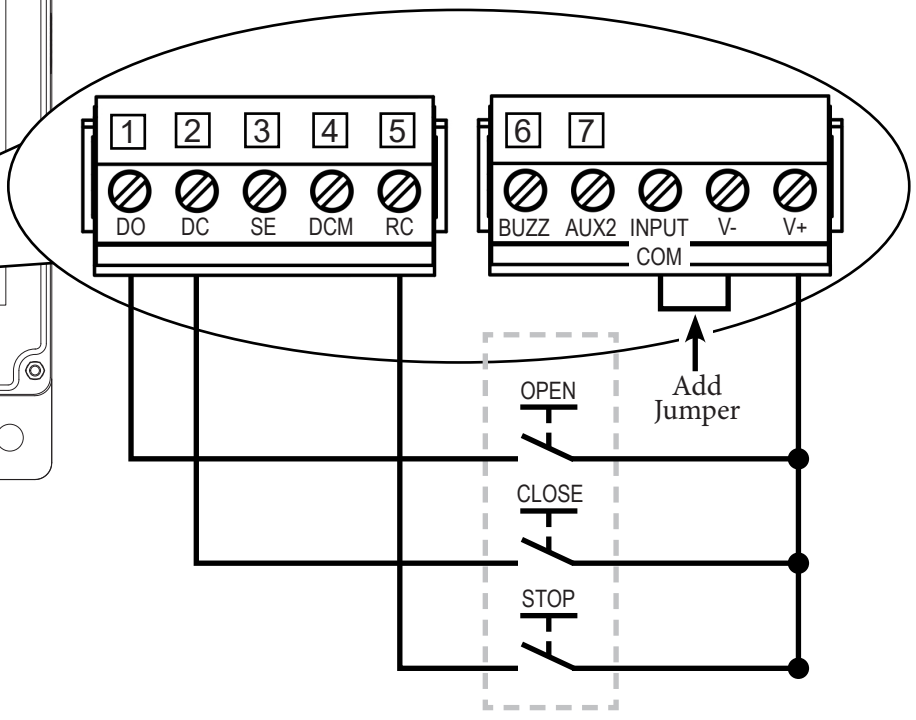
3.10 CAR STATION DOOR PUSHBUTTONS

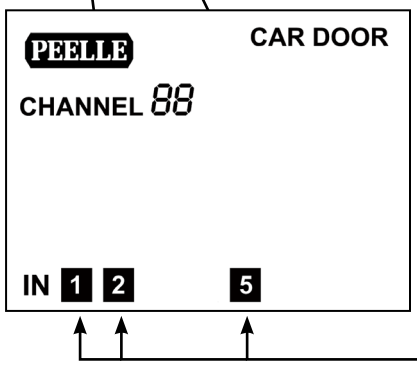


CAR DOOR OPEN BUTTON (DO) 1
Wire car station door OPEN pushbutton as shown.

CAR DOOR CLOSE BUTTON (DC) 2
Wire car station door CLOSE pushbutton as shown.

CAR DOOR STOP BUTTON (RC) 5
Where provided, wire car station door STOP pushbutton as shown. The car door STOP button should be normally open (NO). If normally closed (NC) set parameter 96 to 01. See DOOR STOP output on bridge controller for connection to elevator control.



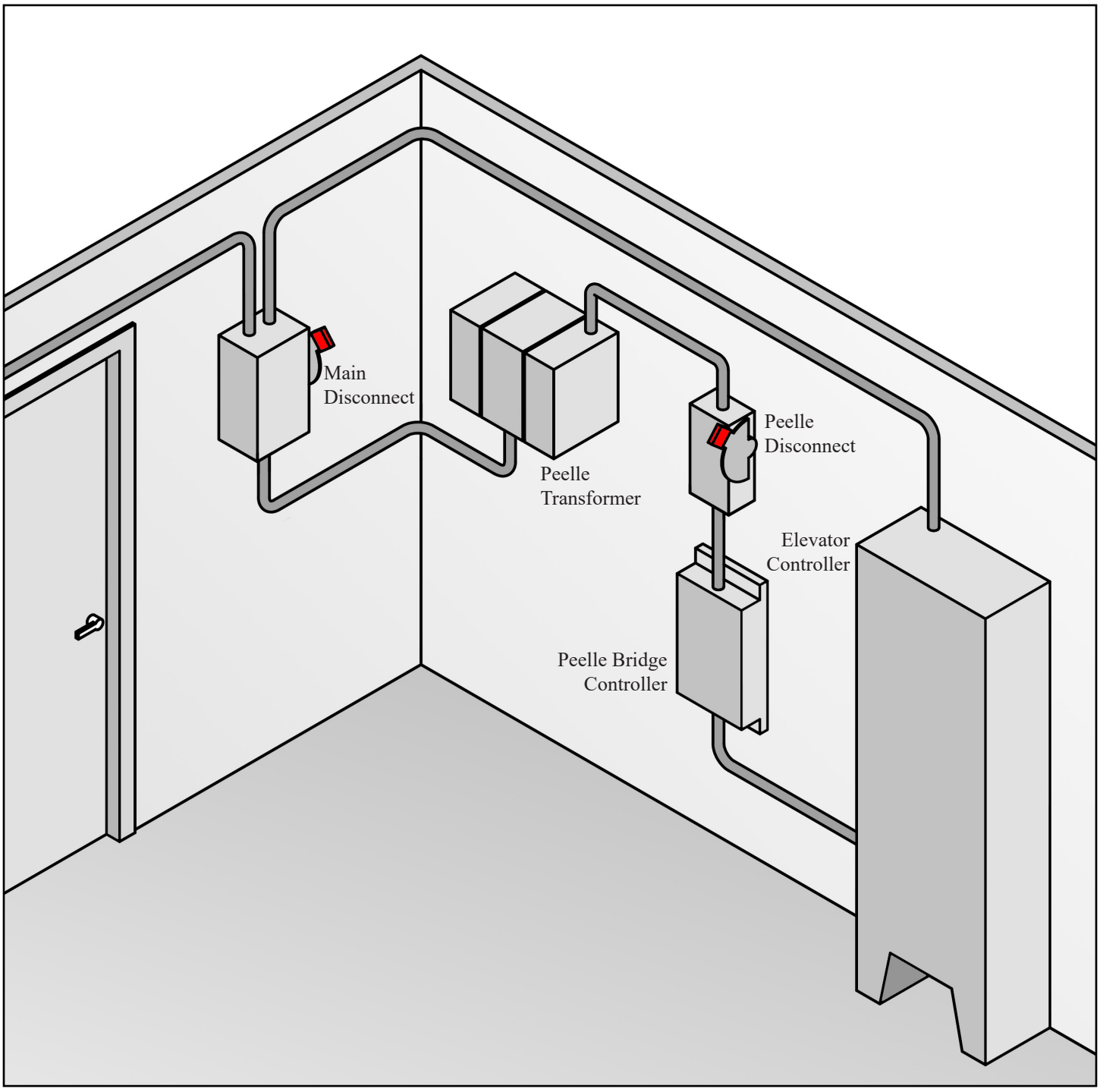


The input indicators 1 2 or 5 will go ON when the pushbutton is activated.

4.0 BRIDGE CONTROLLER INSTALLATION

4.1 BRIDGE CONTROLLER LOCATION AND WIRING LAYOUT

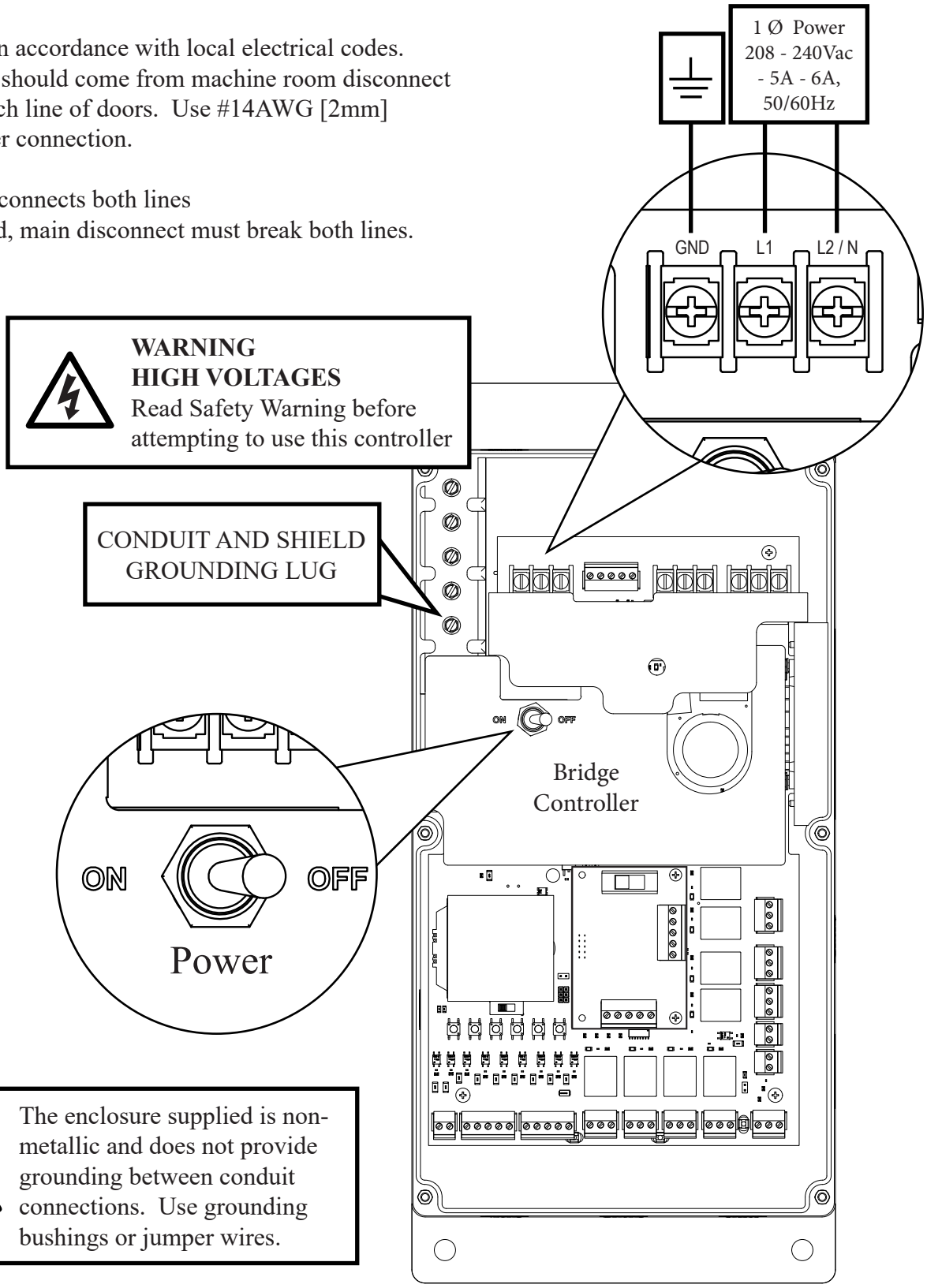
MACHINE ROOM



4.2 BRIDGE POWER CONNECTIONS

Connect controllers in accordance with local electrical codes. Power branch circuit should come from machine room disconnect 10 amp circuit for each line of doors. Use #14AWG [2mm] copper wire for power connection.

- ON/OFF switch disconnects both lines
- If neutral is not used, main disconnect must break both lines.



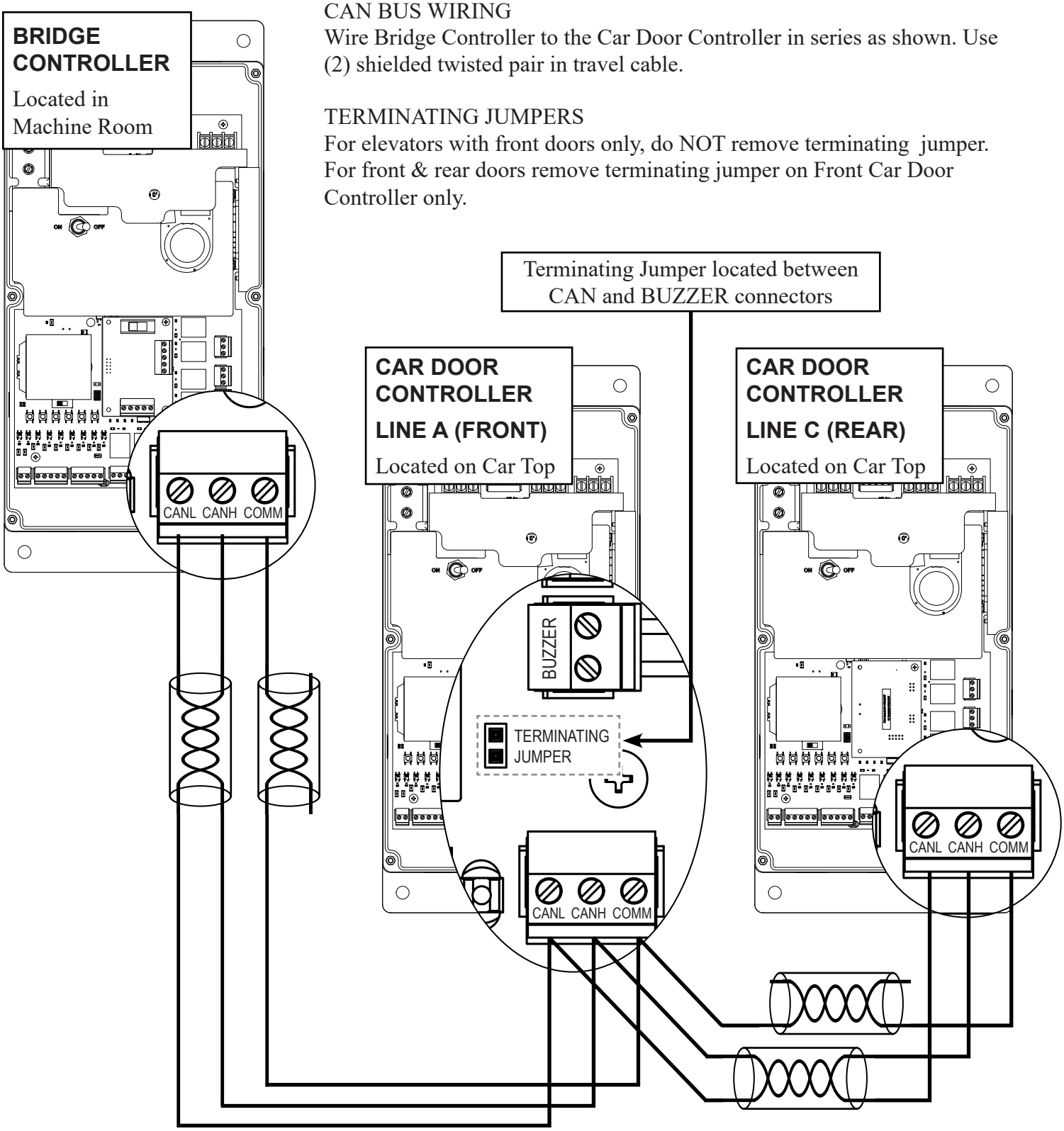
4.3 BRIDGE TO CAR DOOR CONNECTION

CAN BUS WIRING

Wire Bridge Controller to the Car Door Controller in series as shown. Use (2) shielded twisted pair in travel cable.

TERMINATING JUMPERS

For elevators with front doors only, do NOT remove terminating jumper. For front & rear doors remove terminating jumper on Front Car Door Controller only.



4.4 ELEVATOR TO BRIDGE CONTROLLER INPUT CONNECTIONS

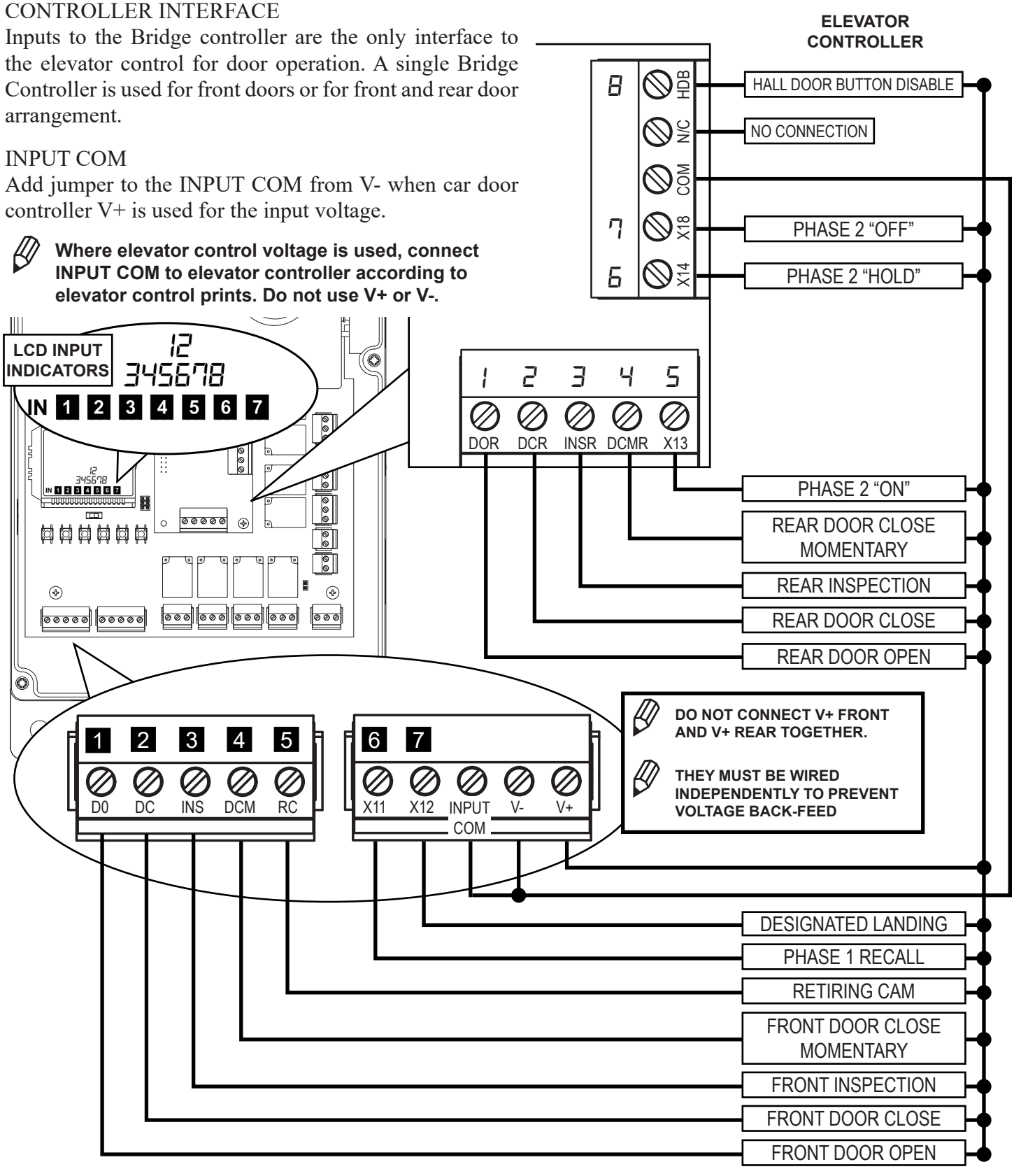
CONTROLLER INTERFACE

Inputs to the Bridge controller are the only interface to the elevator control for door operation. A single Bridge Controller is used for front doors or for front and rear door arrangement.

INPUT COM

Add jumper to the INPUT COM from V- when car door controller V+ is used for the input voltage.

Where elevator control voltage is used, connect INPUT COM to elevator controller according to elevator control prints. Do not use V+ or V-.



1 **DO - Front Door Open**
Momentary front signal required to open doors

2 **DC - Front Door Close**
Constant signal required to close doors

3 **SE - Front Inspection**
Constant signal required for front door operation

4 **DCM - Front Door Close Momentary**
Momentary signal required to initiate Auto Close sequence

5 **RC - Retiring Cam**
Input required to lift cam and move car. Signal should be low whenever car is stopped.

6 **X11 - Fire Service Phase 1 Recall**
Input required when Fire Service Phase 1 Recall is on.

7 **X12 - Designated Landing Door**
Input required when elevator is at designated landing

1 **DOR - Rear Door Open**
Momentary signal to open doors

2 **DCR - Rear Door Close**
Constant Signal required to close doors

3 **INSR - Rear Inspection**
Constant signal required for rear door operation

4 **DCMR - Rear Door Close Momentary**
Momentary signal required to initiate Auto Close sequence

5 **X13 - Phase 2 "ON"**
Constant signal required in phase 2 operation

6 **X14 - Phase 2 "HOLD"**
Constant signal required in phase 2 "HOLD" operation

7 **X18 - Phase 2 "OFF"**
Constant signal required in phase 2 "OFF" operation (until recall)

8 **HDB - Hall Door Button Disable**
Constant signal required to enable hall buttons

4.5 BRIDGE CONTROLLER TO ELEVATOR OUTPUT CONNECTIONS

Hall Stop Buttons

DSF - Front Door Stop - Relay COM1
Contact closes when door stops during operation sequence

DSR - Rear Door Stop - Relay COM1
Contact closes when door stops during operation sequence

Front Door Open - Relay COM2
Normally open contact closes and normally closed contact opens, when landing and car doors are closed

Front Door Closed
Relay COM3
Normally open contact closes and normally closed contact opens, when landing and car doors are closed

Rear Door Open
Relay COM4
Normally open contact closes and normally closed contact opens when landing door and car door are open.

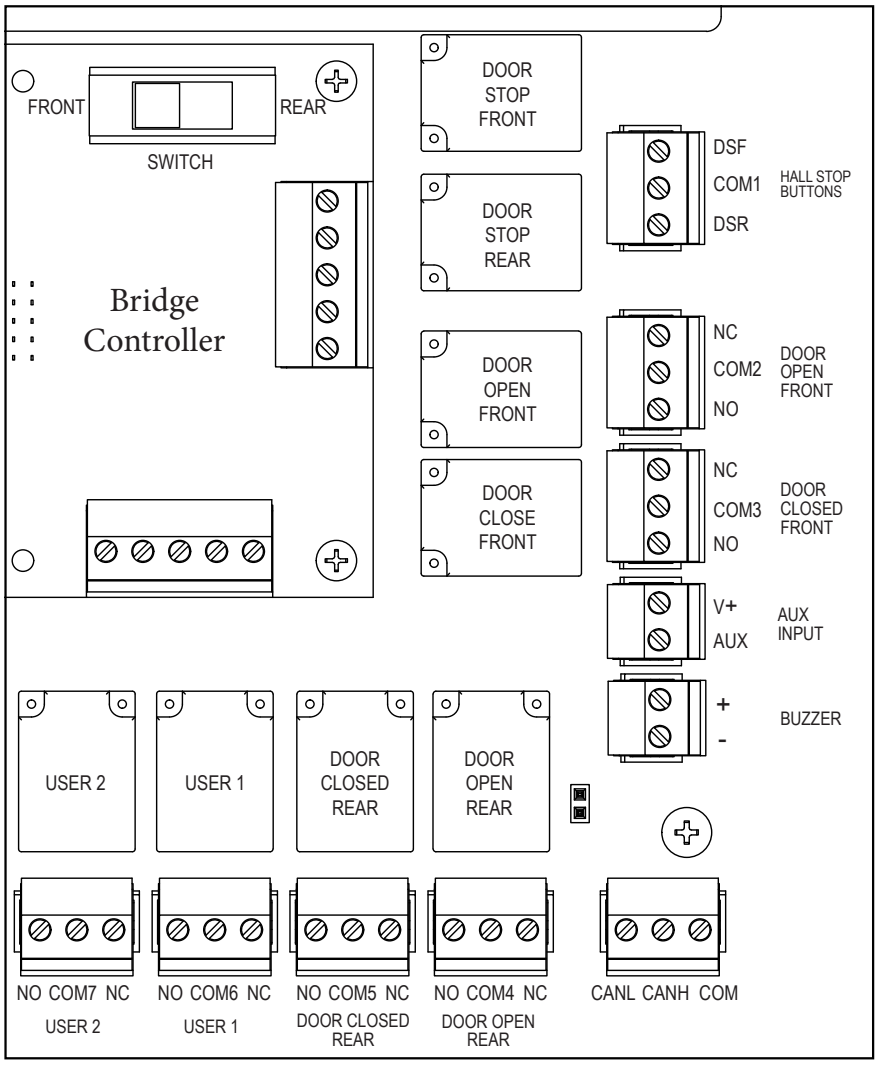
Rear Door Closed
Relay COM5
Normally open contact closes and normally closed contact opens when landing door and car door are closed

USER 1 - Relay COM6
Default: Normally open contact closes and normally closed contact opens when both landing door and car door are 3/4 open.
Option: see parameter 65

USER 2 - Relay COM7
Normally open contact closes and normally closed contact opens when both landing door and car door are 3/4 closed.
Option: see parameter 85

Attention!
See Parameter 97 for power-up mode relay condition.

Elevator controller interface connections to the Bridge Controller ONLY. No connection to landing door controller, or car door controller.



5.0 COMMISSIONING

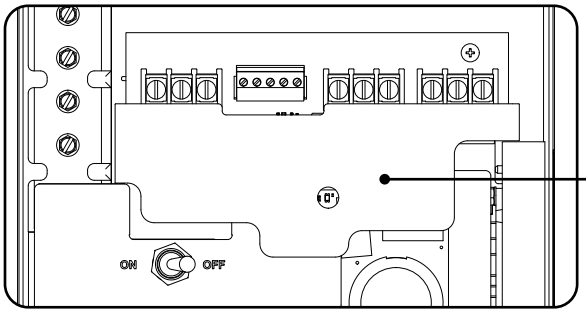
5.1 CAR DOOR COMMISSIONING

Make sure all Landing Doors and Car Doors are adjusted and run freely by hand in the door guides without binding or sticking.

5.2 INSTALL BATTERIES

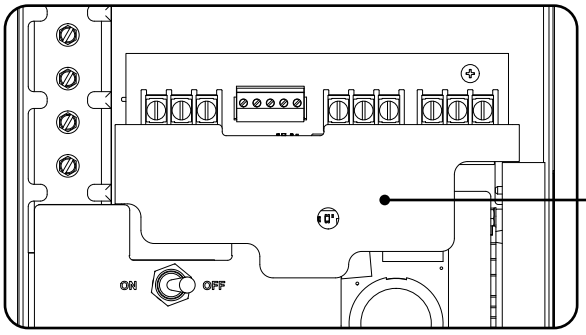
Install NIMH batteries in all Landing door and Car door Controllers.

Batteries not required for Bridge controller



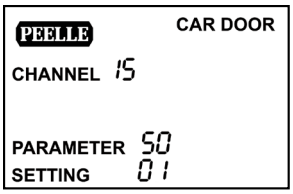
Remove Battery Protection Plate

Install supplied NiMH batteries (only use NiMH)



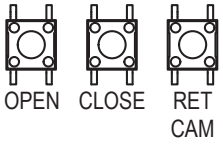
Replace Battery Protection Plate

5.3 CAR DOOR COMMISSIONING STEPS

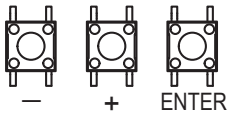


8. Set parameter 50 to “01” for CAN_Bridge Operation

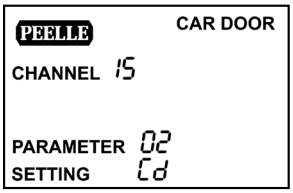
2. Set AUTO<>IND switch to IND



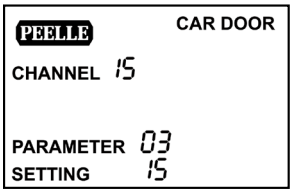
3. Using the OPEN, CLOSE and RETCAM cam buttons, ensure the car door operator(s) and retiring cam motor(s) are phased for correct rotation. If a motor rotates in the wrong direction, switch any two of the three motor wires



4. To begin, cycle through parameters by pressing the - & + buttons. Once the desired parameter is displayed, press the ENTER button to access the setting for that parameter. Change the setting by pressing the - & + buttons. Once the desired setting is displayed, press the ENTER button to save the setting. Parameters can only be modified in IND mode.



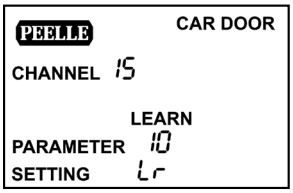
5. Change parameter 02 to “Cd” setting.
The LCD display should now read “CAR DOOR”.



6. Use parameter 03 default “CHANNEL 15” for the first car door . For each additional car door , change parameter 03 to a different channel. The LCD display will show what channel has been selected.

Quick Tip

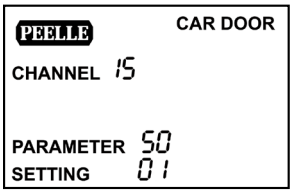
If car door stalls before learn is complete, set parameter 12 to HD. Re-run the learn cycle. Adjust speeds to suit to ensure car door does not slam.



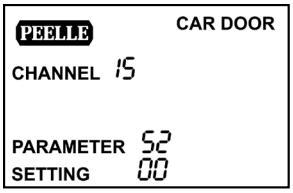
7. Change parameter 10 to “Lr” setting. Press ENTER to begin learn cycle. Prior to learn, car door can be in any position. The learn cycle will fully close and then fully open. Once the car door is fully open, the learn cycle is complete and the flashing “LEARN” indicator on the LCD will turn off.

Quick Tip

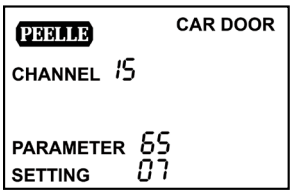
If car door stalls during operation (normal operation or nudging), set parameter 12 to HD. Adjust speeds to suit to ensure car door does not slam.



8. Set parameter 50 to “01” for CAN_Bridge Operation



9. Set parameter 52 to “00” for Front Car Door or “01” for Rear Car Door.



10. Set parameter 65 to “07” for Dual Light Curtain Test Output setting. see section 3.8 on page 18.

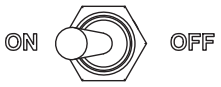
Note see output USER 1

11. Press and hold the CLOSE button to close the door.

12. Set AUTO<>IND switch to AUTO.

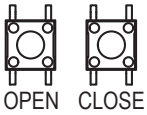
5.4 LANDING DOOR COMMISSIONING STEPS

• Ensure Landing Door interlock is mechanically unlocked. Ideally car is level at floor with retiring cam extended
• Ensure all EUD switches are set to the SET position

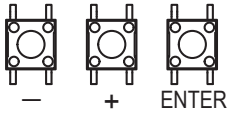


1. Turn power ON

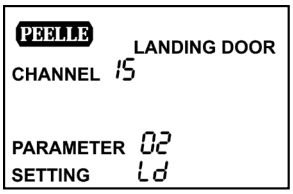
2. Set AUTO<>IND switch to IND



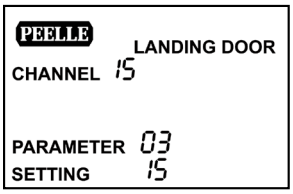
3. Using the OPEN and CLOSE buttons, ensure the landing door operators are phased for correct rotation. If a motor rotates in the wrong direction, switch any two of the three motor wires.



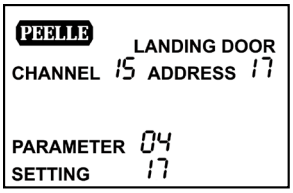
4. To begin, cycle through parameters by pressing the - & + buttons. Once the desired parameter is displayed, press the ENTER button to access the setting for that parameter. Change the setting by pressing the - & + buttons. Once the desired setting is displayed, press the ENTER button to save the setting. Parameters can only be modified in IND mode.



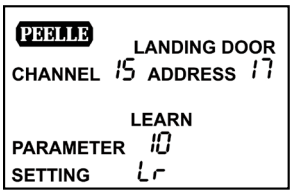
5. Change parameter 02 to "Ld" setting.
The LCD display should now read "landing door".



6. Change parameter 03 to match the channel of the adjacent car door. All the landing doors for the front line must have the same channel as the front car door. The LCD display will show what channel has been selected.



7. Change parameter 04 to address the landing door. Use "ADDRESS 01" for the lowest door in a line of doors. Each additional landing door in line should be addressed in sequence (01, 02, 03 Etc). The LCD display will show what address has been selected.



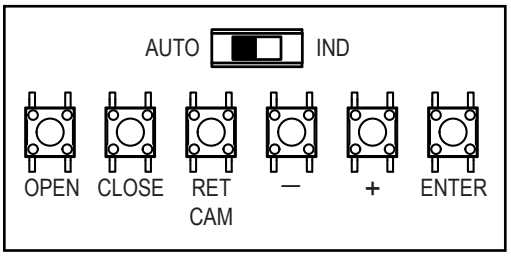
8. Change parameter 10 to "Lr" setting. Press ENTER to begin learn cycle. Prior to learn, Landing Door can be in any position. The learn cycle will fully close and then fully open. Once the Landing Door is fully open, the learn cycle is complete and the flashing "LEARN" indicator on the LCD will turn off.

9. Press and hold the CLOSE button to close the door.

10. Set AUTO<>IND switch to AUTO.

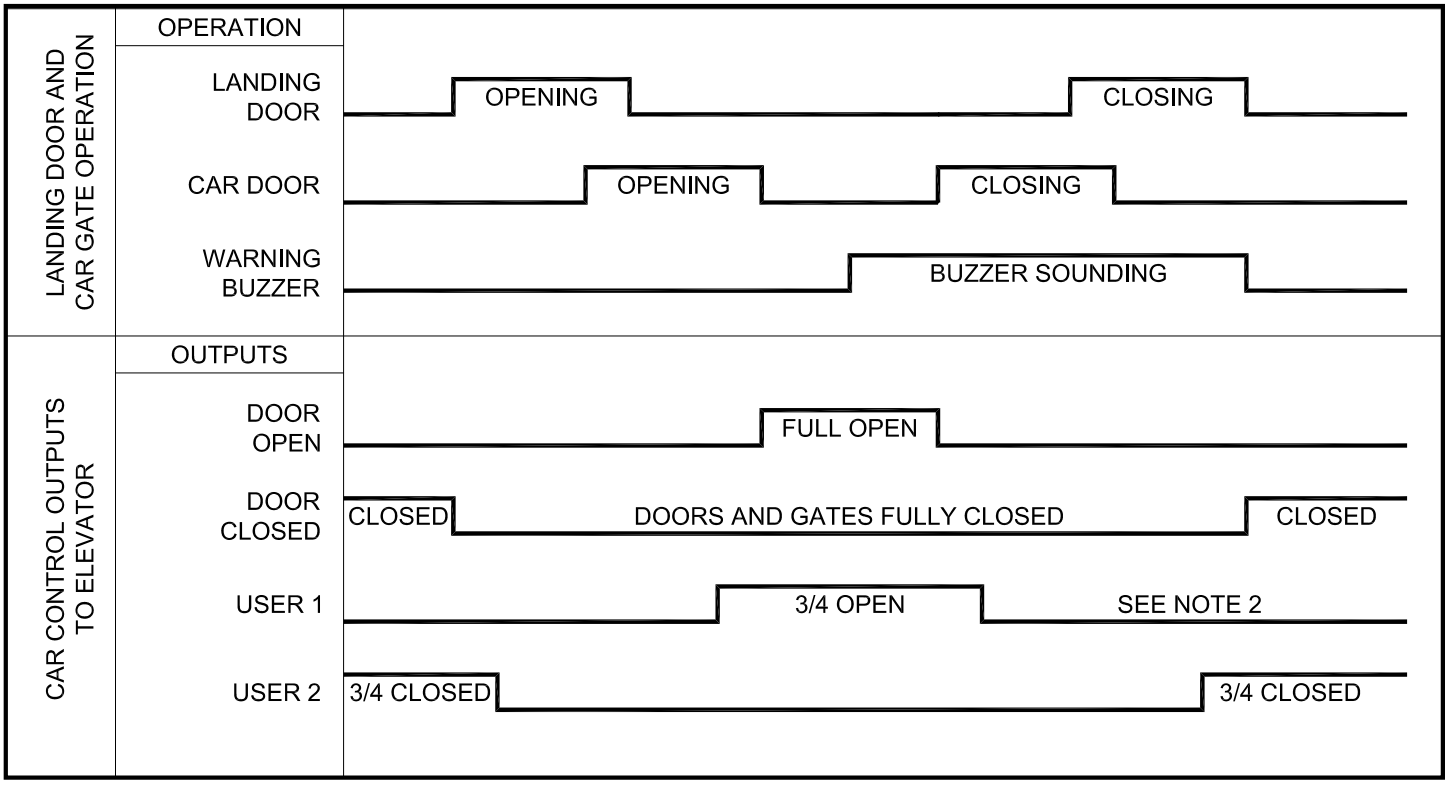
5.5 OPERATION AND TESTING - FROM THE CAR DOOR CONTROLLER

With the CAN connection from the bridge controller removed, test the following Sequence of Operation using the OPEN, CLOSE and RETCAM buttons on the car door controller from the top of the car.



1. Remove the CAN connector to the controller
2. Make sure the controllers are set to AUTO
3. Use the OPEN, CLOSE and RETCAM buttons to test the door and car door and retiring cam sequence of operation.
4. Reconnect the CAN connector.

5.6 SEQUENCE OF OPERATION



For USER 1 and 2 options, see parameter 65 and 85

5.7 LOSS OR POWER/BATTERY BACKUP/POWER UP MODE

ATTENTION!
Landing door and Car door settings and speed profiles are retained by the controller when power is removed. It is not necessary to relearn the opening.

SHORT TERM POWER LOSS

In the event of a short-term power loss (less than 15 minutes), both car door and landing door controllers are equipped with an onboard battery backup system that will monitor door position.

If power is restored within the 15 minutes, the operating profile (full speeds) will be restored as well as the DOOR OPEN or DOOR CLOSED outputs depending on car/landing door position.

LONG TERM POWER LOSS

In the event of an extended power loss, battery backup power will be lost.

After power-up with the elevator car at a landing and upon automatic initiation of either open or close, the landing door and car door will operate at slow speed until the final open or final closed position is reached and held for one second.

At that point, the normal operating profile (full speeds) will be restored as well as the DOOR OPEN or DOOR CLOSED outputs depending on car/landing door position.

All unzoned landing doors will power up with the normal operating profile.

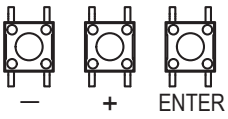
5.8 BRIDGE COMMISSIONING

Complete this commissioning after door operation testing, section 5.3

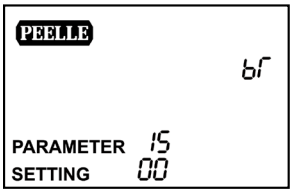
1. Turn power ON

2. Set AUTO<>IND switch to IND

3. Set FRONT<>REAR switch to desired setup. Both front and rear are commissioned independently.

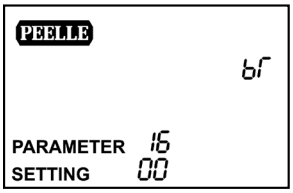


4. To begin, cycle through parameters by pressing the - & + buttons. Once the desired parameter is displayed, press the ENTER button to access the setting for that parameter. Change the setting by pressing the - & + buttons. Once the desired setting is displayed, press the ENTER button to save the setting. Parameters can only be modified in IND mode.



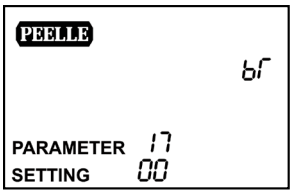
5. Set parameter 15 to desired Auto Close time. Setting ”00” Auto Close is disabled.

- Auto Close set times: 30, 45, 60, 90, 120, 150, 180, 300 seconds.



6. Set parameter 16 to elevator code jurisdiction.

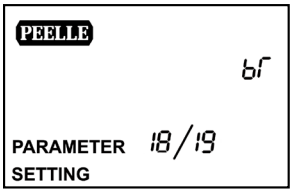
- New York City RS18 = “01”
- All others = “00”



7. Set parameter 17 for single or dual light curtains.

- Single Light Curtain = “00”
- Dual Light Curtains (2010 code compliance) = “01”

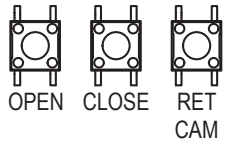
Also make sure to change your Car Door Controller Parameters 65 to “07” for dual light curtains.



8. If required select USER1 or USER2 for desired relay output. See section Bridge Parameters, and elevator control prints.

- USER 1 = Parameter 18
- USER 2 = Parameter 19

9. Set AUTO<>IND switch to AUTO.

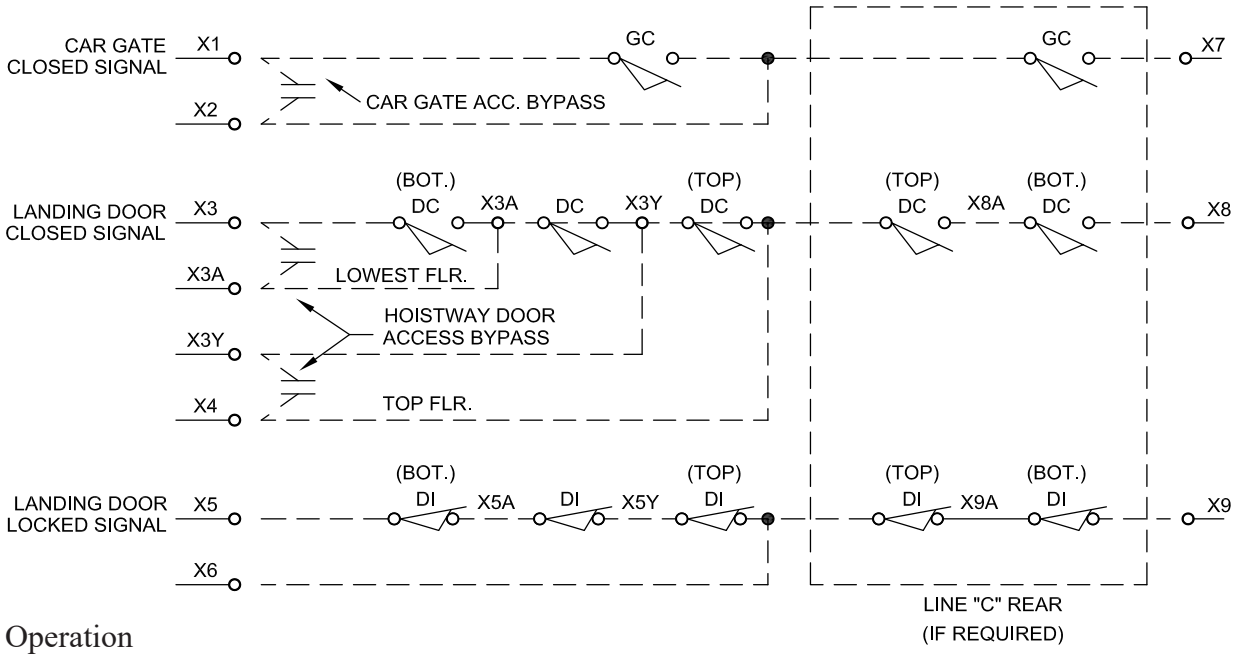


10. Using the OPEN, CLOSE and RETCAM cam buttons, ensure the doors are functioning from the Bridge Controller.

5.9 LANDING AND CAR DOOR INTERLOCKING CIRCUITS

Wiring

Note: The following interlock safety circuit wiring is for reference only.
REFER TO THE ELEVATOR PRINTS FOR PROPER INTERLOCK WIRING.

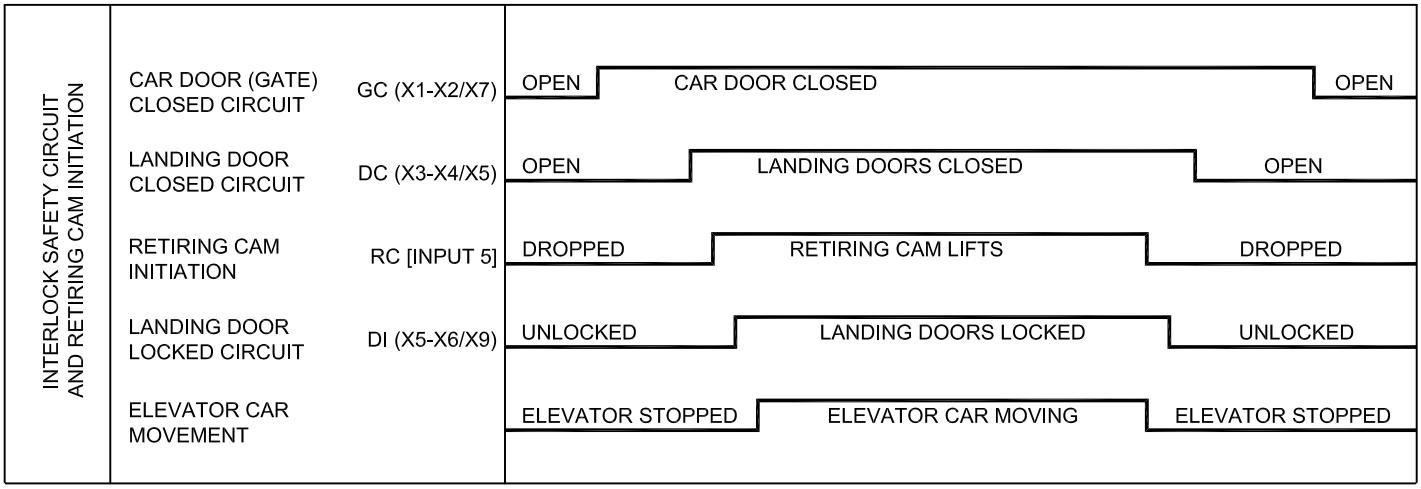


Elevator Control Operation

1) All DC (hoistway door closed) and GC (car gate closed) contacts should be connected in series and that the contacts be made when the doors and gates are closed.
2) All DI (hoistway door lock) contacts should be connected in series and the contacts be made when all doors are locked.

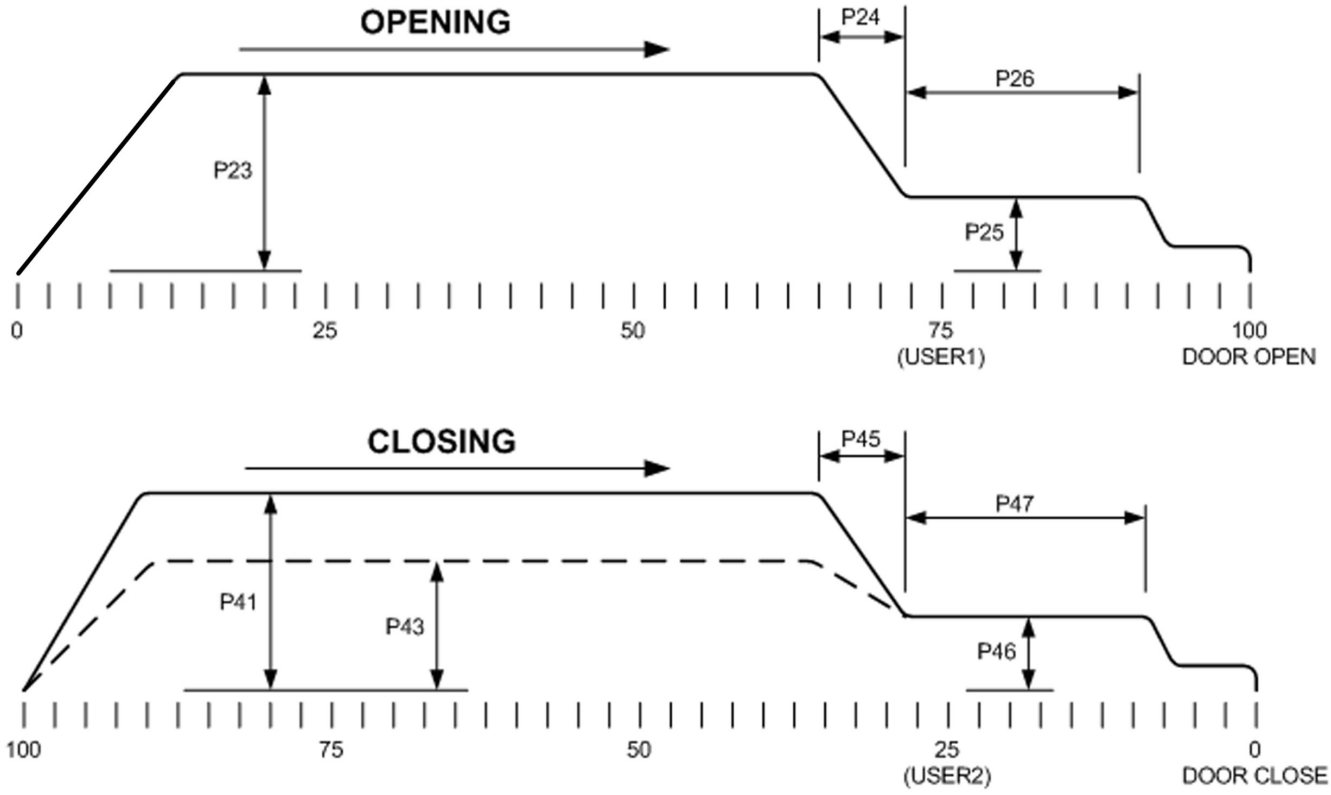
When the elevator controller is signaled, "all doors closed" through the DC and GC circuits, the elevator controller may initiate retiring cam operation (see Retiring Cam Initiation Contact). Initiation will cause the retiring cam face to retire (lift). When the interlock roller is no longer depressed by retiring cam, hoistway door locking action takes place and the elevator controller is signaled, "all doors locked" through the Di circuit. The elevator controller shall not allow the elevator car to run unless all DC (hoistway door closed) and GC (gate closed) and DI (hoistway door locking) contacts are made.

Sequence of Operation



6.0 CONTROLLER SETTINGS

6.1 DOOR MOTION PROFILES



6.2 CAR & LANDING DOOR CONTROLLER PARAMETERS

Parameter	Description	Range	Landing Pre Set	Car Pre Set
1	Reset Overload (00 = Do not reset, 01 = Reset)	00-01	00	00
2	Controller Type: Car Door, Landing Door, Slave	Cd,Ld,SL	Ld	Ld
3	Channel: set a unique Channel for each line of doors	11-26	26	26
4	Floor: set a unique Floor address for each Landing Door (note: 00 is not a valid address)	01-98	00	N/A
10	Learn Command: used to learn the opening	Lr or --	--	--
11	Learn Speed: set learn and power-up speed	40-70	40	40
12	Torque Boost	10-40	40	10
23	Open High Speed: set the opening high speed	35-99	99	99
24	Open Deceleration Zone: set distance of deceleration ramp	00-30	10	10
25	Open Low Speed: set low speed open	20-99	50	30
26	Open Low Speed Zone	00-30	10	10
27	Open Hold Torque: set the hold open torque	00-50	25	20
28	Fire Lintel Open Slowdown	10-90	50	N/A
41	Close High Speed: set the closing high speed	35-99	99	85
42	Close High Speed Torque Limit	30-99	99	99
43	Close Nudging Speed	30-70	N/A	50
44	Close Nudging Speed Torque Limit	30-99	N/A	99
45	Close Deceleration Zone: set distance of deceleration ramp	00-30	10	10
46	Close Low Speed: set low speed close	20-99	50	30
47	Close Low Speed Zone: set distance of low speed zone	00-20	10	10
48	Close Hold Torque: set the hold close torque	00-50	25	20
49	Fire Lintel Close Slowdown	10-90	50	N/A

Parameter	Description	Range	Landing Pre Set	Car Pre Set
50	Control Interface: set discrete or CAN bus interface 00 = discrete, 01 = CAN (High Speed), 02 = CAN (Low Speed)	00-02	N/A	00
52	Car Door Designation: 00 = Front, 01 = Rear (only displayed if Parameter 50 = 01 or 02)	00-01	N/A	00
53	CmcMedia: 00 = RF, 01 = Wired RS_485	00-01	00	00
54	USING AS REPLACEMENT CONTROLLER If Parameter 80 is 18 or lower change Parameter 54 to 01	00-01	00	00
55	Lost Communication Reaction Time 04 = 0.4 sec 05 = 0.5 sec … 18 = 1.8 sec	04-18	10	10
60	Deceleration rate	01-10	03	03
61	Acceleration rate	01-10	03	03
62	USER 2 Close Limit: set position of the user door close limit	70-99	75	75
63	USER 1 Open Limit: set position of the user door open limit	70-99	75	75
64	User Limits Setting: 00 = landing door USER limit + car door USER limit sets USER relay output on car door controller 01 = car door USER limit sets USER relay output on car door controller	00-01	N/A	00
65	USER 1 options 00 = USER1 POSITION 01 = USER2 POSITION 02 = ZONE 03 = BUZZ / STROBE 04 = DOOR OPEN POSITION 05 = DOOR CLOSED POSITION 06 = AUX2 INPUT 07 = LCT (BRIDGE MODE ONLY P50=01 or 02) 08 = OVERLOAD 09 = OVERDUTY 10 = OVERLOAD / OVERDUTY	00-06	03	00
70	Retiring Cam Lift Type 00 – High Torque 01 – Noise Reduction 02 – Full Speed	00-02	N/A	00
71	Retiring Cam Drop Type 00 – Unpowered 01 – Noise Reduction	00-01	N/A	00
72	Retiring Cam Duty Control 00 = Disabled (contact Peelle if used) 01=50% Duty 02 = 75% Duty	00-02	N/A	01
80	Software Version (read only)	2 digits	Software Version	Software Version
81	Radio Strength	01-31	31	31
82	Motor Duty Control 00 = Disabled (contact Peelle if used) 01=Standby Duty 02 = Increased Duty	00-02	01	01
83	Motor Overload Control 00 = Disabled (contact Peelle if used) 01=Default Threshold 02 = Increased Threshold	00-02	01	01
84	Drive Over Temperature Control 00 = Disabled (contact Peelle if used) 01=Default Threshold 02 = Increased Threshold	00-02	01	01

85	USER 2 options 00 = USER 2POSITION 01 = USER 1POSITION 02 = ZONE 03 = BUZZ / STROBE 04 = DOOR OPEN POSITION 05 = DOOR CLOSED POSITION 06 = AUX2 INPUT 07 = LCT (BRIDGE MODE ONLY P50=1) 08 =OVERLOAD 09 =OVERDUTY 10 = OVERLOAD / OVERDUTY	00-06	03	00
86	Retiring Cam Lift Torque Boost	00-24	NA	0
87	SIMULTANEOUS OPERATION (INPUT 4 HIGH) 00= CLOSE DIRECTION ONLY 01 = OPEN AND CLOSE DIRECTION			
88	Car Door Aux2 Input Option 00=Disabled 01 = Independent Car Door Operation with input ON	00-01	N/A	00
89	Momentary Door Open / Door Close Option 00=Constant DO and DC operation 01 = Momentary DO and DC operation	00-01	N/A	00
93	Power Up landing door speed (unzoned only) 00=learn speed until final open/close limit 01=normal profile speed	00-01	01	N/A
94	Buzzer Output: 00 = Pulsing, 01 = Continuous	00-01	01	00
95	Close Input Buzzer Control: 00 = Disabled, 01 = Enabled	00-01	01	01
96	Hall Stop Button Input: 00 = Normally Open, 01 = Normally Closed	00-01	00	N/A
97	Power-Up Settings: 01 – Door Closed = 1, Door Open = 1; 02 – Door Closed = 1, Door Open = 0; 03 – Door Closed = 0, Door Open = 0; If zoned, both Door Closed and Door Open = 0, regardless of selection. Condition of outputs is established automatically after opening or closing cycle	01-03	02	02
98	Show Cycle Counter	6 digits	Cycle Counter	Cycle Counter
99	Restore Factory Default Settings 00 – Exit without saving 01 – Restore all Motor parameters (#20 – 97) 02 – Restore all parameters (#2 – 97)	00-02	00	00

N/A – Not available

Speeds are expressed as a percentage of full speed. Zone is expressed as a percentage of total travel. Torque is expressed as a percentage of nominal voltage for corresponding speed.

6.3 BRIDGE CONTROLLER PARAMETERS

Bridge Controllers will show a "br" on the LCD display

Parameter	Description	Range	Default
11	CAN Speed 00 – High Speed 01 – Low Speed (use for long cable runs)	00-01	00
12	15 Seconds Screen View	00-01	00
13	Momentary Close	00-01	00
14	Power Up Auto Close	00-02	01
15	Auto Close Timing	00, 30, 45, 60, 90, 120, 150, 180, 300	00
16	New York City	00-01	00
17	light curtain Test	00-01	00
18	User 1 Selectable 00 = USER_1_FRONT 01 = USER_2_FRONT 02 = ZONE_FRONT 03 = BUZZ_STROBE_FRONT 04 = DOOR_OPEN_FRONT 05 = DOOR_CLOSED_FRONT 06 = AUX_2_FRONT 07 = USER_1_REAR 08 = USER_2_REAR 09 = ZONE_REAR 10 = BUZZ_STROBE_REAR 11 = DOOR_OPEN_REAR 12 = DOOR_CLOSED_REAR 13 = IS_AUX_2_REAR 14 = OVERLOAD_FRONT 15 = OVERDUTY_FRONT 16 = OVERLOAD_OR_OVERDUTY_FRONT 17 = OVERLOAD_REAR 18 = OVERDUTY_REAR 19 = OVERLOAD_OR_OVERDUTY_REAR	00-19	00
19	User 2 Selectable 00 = USER_2_FRONT 01 = USER_1_FRONT 02 = ZONE_FRONT 03 = BUZZ_STROBE_FRONT 04 = DOOR_OPEN_FRONT 05 = DOOR_CLOSED_FRONT 06 = AUX_2_FRONT 07 = USER_1_REAR 08 = USER_2_REAR 09 = ZONE_REAR 10 = BUZZ_STROBE_REAR 11 = DOOR_OPEN_REAR 12 = DOOR_CLOSED_REAR 13 = IS_AUX_2_REAR 14 = OVERLOAD_FRONT 15 = OVERDUTY_FRONT 16 = OVERLOAD_OR_OVERDUTY_FRONT 17 = OVERLOAD_REAR 18 = OVERDUTY_REAR 19 = OVERLOAD_OR_OVERDUTY_REAR	00-19	00
20	Bridge Software Version(Read Only)	2 digits	05(current)
21	Reset to default setting	00-01	00

7.0 TROUBLESHOOTING

7.1 INDEPENDENT MODE

PEELLE ONLY OPERATION - USED FOR COMMISSIONING AND INDIVIDUAL LANDING/CAR DOOR OPERATION
(AUTO-IND slider switch set to IND)

Problem	Possible Cause	Action
No operation from OPEN/CLOSE pushbutton	AUTO-IND slider not set to IND	Set AUTO-IND slider to IND
	Wiring problem to Landing Door motor output or Car Door selector relay output	See page 6 for Landing Door motor wiring
		See pages 15 & 16 for Car Door/Retiring Cam motor wiring
	Flashing LCD "OVERLOAD" icon	Duty timer for motor has been exceeded. Cool down period required for motor regeneration. If condition persists, increase duty timer. See parameters P72 & P82. Note: increasing duty timer may shorten motor life
	Constant LCD "OVERLOAD" icon	Check Landing Door motor output or Car Door selector relay output for short circuit to ground See page 6 for Landing Door motor wiring See pages 15 & 16 for Car Door/Retiring Cam motor wiring Acknowledge "OVERLOAD" by setting parameter P01 to 01
No operation from RETCAM pushbutton	Controller type not set to Car Door (CD)	Ensure parameter P02 is set to "CD"
	Wiring problem to Car Door selector relay output	See pages 15 & 16 for Car Door/Retiring Cam motor wiring
Slow speed Landing/Car Door operation only	LCD "LEARN" flashing	Operational profile not learned. Set parameter P10 to "Lr" to initiate learn sequence
Landing/Car door runs for 12" then stops	Encoder set screw loose	Ensure set screw is tight on encoder shaft
	Encoder wiring problem	See page 5 for Landing Door encoder wiring See pages 14 for Car Door encoder wiring Move door manually and check that encoder count on LCD is changing
Retiring Cam not fully pulling back	Mechanical problem with bottom assembly (face)	Ensure bottom assembly moves freely on pivot pins Ensure connecting rod is parallel to bottom assembly (face) and top assembly (motor)
	Mechanical problem with top assembly (motor)	Ensure pulley belt has 3/4" of deflection
	Mechanical problem with full assembly	Ensure when pulling back that pickup arm on top assembly starts at 6 o'clock and rotates towards middle of car to either 9 o'clock or 3 o'clock (depending on rotational direction)

7.2 AUTOMATIC MODE

PEELLE ONLY OPERATION - USED FOR COMBINED LANDING AND CAR DOOR OPERATION
(AUTO-IND slider switch set to AUTO)

Problem	Possible Cause	Action
No operation from OPEN/CLOSE pushbutton	AUTO-IND slider not set to AUTO	Set AUTO-IND slider to AUTO
		All controllers must be set to AUTO.
	Elevator not in Landing Door zone	Ensure retiring cam bottom assembly is on Landing Door roller arm
	LCD "ZONE" icon not on at either Landing Door controller or corresponding Car Door controller	Ensure Input 3 is on at Landing Door controller.
	LCD "ANTENNA" icon not on (or flashing) at zoned Landing Door controller or corresponding Car Door controller	Ensure Landing Door channel matches Car Door channel. Adjust parameter P03 if necessary
		Ensure Landing Door address is unique and not set to 00. Adjust parameter P04 if necessary
	LCD "EUD" icon on (or flashing) at Landing Door controller and flashing at corresponding Car Door controller	Constant LCD "EUD" icon = EUD is in STOP position at current landing
		Flashing LCD "EUD" icon = EUD is in STOP position at another landing on the same channel See page 9.
	LCD "MULTIZONE" icon on at Landing Door controller and corresponding Car Door controller	Check all interlock zone micro switches. Only one zone micro switch can be on at a time on one channel.
	Flashing LCD "OVERLOAD" icon	Duty timer for motor has been exceeded. Cool down period required for motor regeneration. If condition persists, increase duty timer. See parameters P72 & P82. Note: increasing duty timer may shorten motor life
	Constant LCD "OVERLOAD" icon	Check Landing Door motor output or Car Door selector relay output for short circuit to ground See page 6 for Landing Door motor wiring
		See pages 15 & 16 for Car Door/Retiring Cam motor wiring Acknowledge "OVERLOAD" by setting parameter P01 to 01

7.3 ELEVATOR INTERFACE OPERATION

Problem	Possible Cause	Action
Elevator controller is sending outputs to Bridge controller but no Landing / Car Door operation in open or close direction	Are LCD input icons on Bridge controller? If not check the folowing: If Peelle power is used to power Peelle inputs, missing jumper from Input Com terminal to V– terminal on Car Door controller If external power is used to power Peelle inputs, missing external power reference wire on Input Com terminal on Car Door controller	LD & CD on Auto? Add jumper from Input Com to V-. See page 22 Ensure external power reference is wired to Input Com. See page 22 Ensure external power reference is wired to Input Com. See page 22 Note: ensure no connections to Peelle V+/V- Ensure parameter P50 is set to 00 on Car Door Controller
	Is antenna icon solid on Bridge controller? If not...	Check CAN connection from Bridge Controller to Car Door Controller
Bridge controller is sending signal to car door controller but no Landing/Car Door operation in open or close direction	Are LCD input icons on Car Door controller? If not check the folowing: If Peelle power is used to power Peelle inputs, missing jumper from Input Com terminal to V– terminal on Car Door controller If external power is used to power Peelle inputs, missing external power reference wire on Input Com terminal on Car Door controller	Add jumper from Input Com to V-. See page 22 Ensure external power reference is wired to Input Com. See page 22 Note: ensure no connections to Peelle V+/V- Ensure parameter P50 is set to 00.
	Landing Door stop input on	Ensure input 5 is off on Landing Door controller. See page 10 See Automatic Mode chart
	Landing/Car door stopped before final open/close	Door may be mechanically obstructed. Fix obstruction. If there is not enough power in slow speed for final open or final close, increase the following parameter(s) in multiples of 5 until fixed: Open direction - P27 Close direction - P48
Bridge controller is sending signals to car door controller but no Landing/Car Door operation in close direction	Light curtain obstructed	Check light curtain alignment For dual light curtains ensure P65 is set to 047 on car door controller
Antena flashing on bridge controller	Wiring problem on car door controller	Verify that V+ Front and V+ Rear car doors are wired independently. Do not connect them together.

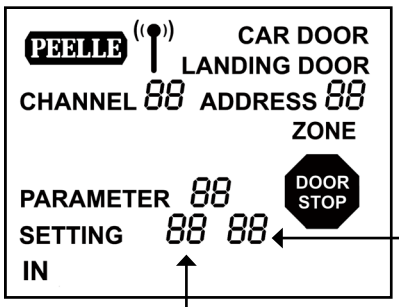
7.4 ERROR CODES

If the setting is flashing from encoder count (5 digits) to and error code (4 digits) refer to the following.

How to read
Example: Car Door Error 06 10

The first two digits are the sum of the first four possible errors.
06 = 02 (car door motor run error) + 04 (car motor over duty)

The last two digits are the sum of the last four possible errors.
10 = 02 (EUD error) + 08 (lost zone)



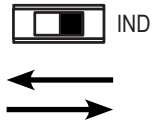
Car door error codes - last two digits
01 - Not used
02 - EUD error
04 - Multi Zone error
08 - Lost zone

Landing door error codes - last two digits
01 - Not used
02 - EUD input set
04 - Multi Zone error
08 - Lost zone

Car door error codes - first two digits
01 - Landing door motor run error
02 - Car door motor run error
04 - Car motor over duty
08 - retiring cam motor over duty

Landing door error codes - first two digits
01 - Landing door motor run error
02 - Not used
04 - Landing door motor over duty
08 - Not used

To clear error codes cycle the AUTO-IND slider switch



7.5 LANDING DOOR LCD

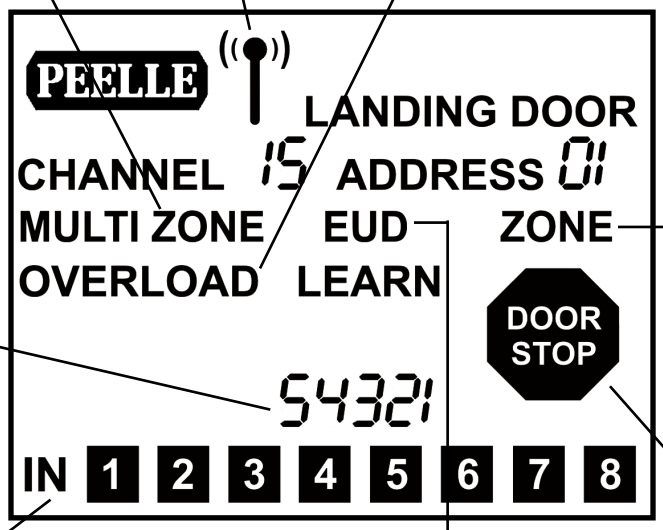
Radio Communication
- Antenna is ON solid when elevator is at a floor and door is ZONED
- Antenna is ON solid when EUD is SET whether door is ZONED or not
- Antenna is OFF when elevator is not ZONED
- For intermittent flashing in ZONE adjust channel selection

Motor Overload / Over Duty
- OVERLOAD is ON solid when over current exists at motor output
  - Check for shorts on motor line
  - Check for shorts to ground
- Reset of overload is required; set parameter 01 to 01 and press ENTER to clear (must go to IND mode)
- OVERLOAD is flashing when motor run time exceeds duty
  - Let motor reset for 5 minutes
- Over Duty does not require reset

Multiple Zone
- MULTIZONE indicator is shown when two or more landing door controllers are ZONED on the same channel
- Check zone switches and ZNS inputs at landings

Landing Zone
- Zone is ON solid when elevator is at a floor with retiring cam extended and door unlocked
- Input indicator 3 ZNS is ON when door is ZONED
- Zone and 3 are OFF when doors are locked and / or car is moving between floors
- Doors will not run if ZONE is not made
- Check ZNS and zone switch

Number Display
- Number display show encoder count (door position)
- Approximately 0-50 for landing door closed position
- Full count for open position
- May flash fault codes for Peelle Use



Door Stop Sign
- Door Stop Sign is ON whenever motors are not running
- Door Stop Sign is OFF when power is being applied to motors

Input Indicators
1. HDO - Hall door open button
2. HDC - Hall door closed button
3. ZNS - Floor Zone switch
4. EUD - Emergency Unlocking Device
5. STOP - hall door stop button
6. AUX1 - Not Used
7. AUX2 - Not Used
8. RE - Hall door light curtain input (where provided)

Emergency Unlocking Device
- EUD is ON solid when EUD is STOP at that floor
- Input indicator 4 is ON when EUD is STOP at that floor
- EUD is flashing when EUD is STOP at another floor on same channel
- Doors will not run if any EUD is STOP on the same channel

7.6 CAR DOOR LCD

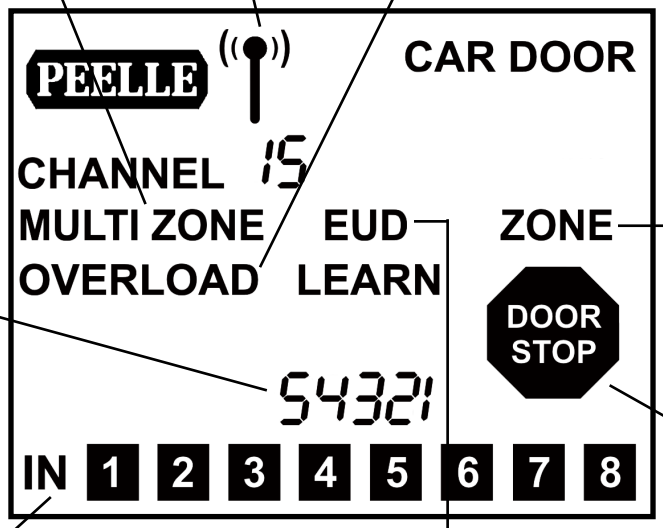
Radio Communication
- Antenna is ON solid when elevator is at a floor and door is ZONED
- Antenna is OFF when elevator is travelling
- Antenna is Flashing Constant when elevator is not ZONED
- For intermittent flashing in ZONE adjust channel selection

Motor Overload / Over Duty
- OVERLOAD is ON solid when over current exists at motor output
- Check for shorts on motor line
- Check for shorts to ground
- Reset of overload is required; set parameter 01 to 01 and press ENTER to clear (must go to IND mode)
- OVERLOAD is flashing when motor run time exceeds duty
- Let motor reset for 5 minutes
- Over Duty does not require reset

Multiple Zone
- MULTIZONE error is shown when two or more landing door controllers are ZONED on the same channel
- ZONED floor addresses are shown in Number Display
- Check ZONE switches and ZNS inputs at landings

Landing Zone
- Zone is ON solid when elevator is at a floor with retiring cam extended and door unlocked
- Zone is OFF when all doors are locked and / or car is moving between floors
- Doors will not run if ZONE is not made
- Check ZNS and zone switch

Number Display
- Number display show encoder count (car door position)
- Approximately 0-50 for car door closed position
- Full count for open position
- Will show floor addresses in MULTIZONE error
- Shows floor addresses when and EUD is SET
- May flash fault codes for Peelle Use



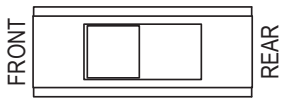
Door Stop Sign
- Door Stop Sign is ON whenever motor is not running
- Door Stop Sign is OFF when power is being applied to motor

Input Indicators
1. DO - Door open command from elevator
2. DC - Door closed command from elevator
3. SE - Close nudging command from elevator
4. DCM - Fast close command from elevator
5. RC - Retiring cam command from elevator
6. BUZZ - Close warning buzzer command from elevator
7. AUX2 - Not Used
8. RE - Reversing edge input from car door

Emergency Unlocking Device
- EUD is flashing when an EUD has been STOP
- EUD is OFF when all landing doors have been RUN
- Floor addresses where EUD is STOP are shown in the Number Display
- Doors will not run if any EUD is STOP on the same channel

7.7 BRIDGE LCD

FRONT or REAR Selector
- LCD shows indicators according to selector switch
- Parameters setting according to selector switch



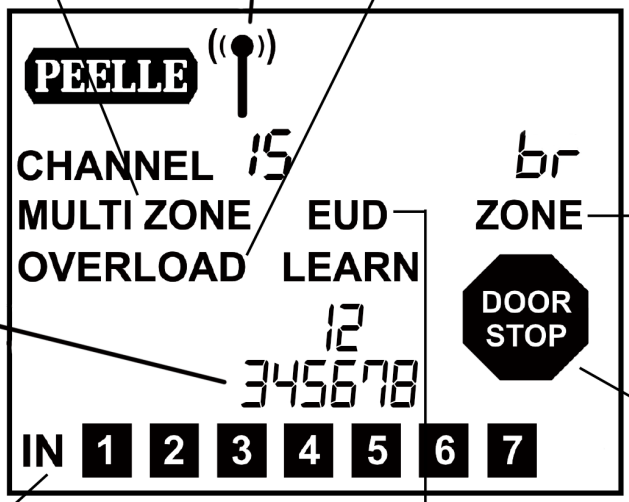
CAN Communication
- Antenna is ON solid when Bridge is communicating with Car Door controller
- Antenna is Flashing constant when CAN is not communicating

Motor Overload / Over Duty
- OVERLOAD is ON solid when over current exists at motor output
- Check for shorts on motor line
- Check for shorts to ground
- Reset of overload is required; set parameter 01 to 01 and press ENTER to clear (must go to IND mode)
- OVERLOAD is flashing when motor run time exceeds duty
- Let motor reset for 5 minutes
- Over Duty does not require reset

Multiple Zone
- MULTIZONE error is shown when two or more landing door controllers are ZONED on the same channel
- ZONED floor addresses are shown in Number Display
- Check ZONE switches and ZNS inputs at landings

Landing Zone
- Zone is ON solid when elevator is at a floor with retiring cam extended and door unlocked
- Zone is OFF when all doors are locked and / or car is moving between floors
- Doors will not run if ZONE is not made
- Check ZNS and zone switch

Input Indicators
1. DOR - Rear Door Open
2. DCR - Rear Door Close
3. INSR - Rear Inspection
4. DCMR - Rear Door Close Momentary
5. X13 - Phase 2 "ON"
6. X14 - Phase 2 "HOLD"
7. X18 - Phase 2 "OFF"
8. HDB - Hall Door Buttons



Door Stop Sign
- Door Stop Sign is ON whenever motor is not running
- Door Stop Sign is OFF when power is being applied to motor

Input Indicators
1. DO - Front Car Open
2. DC - Front Door Close
3. INS - Front Inspection
4. DCM - Front Door Close Momentary
5. RC - Retring Cam
6. X11 - Fire Service Phase 1 "RECALL"
7. X12 - Designated Landing / Auto Close Disable
8. RE - Not Used

Emergency Unlocking Device

EUD is flashing when an EUD has been STOP

EUD is OFF when all landing doors have been RUN

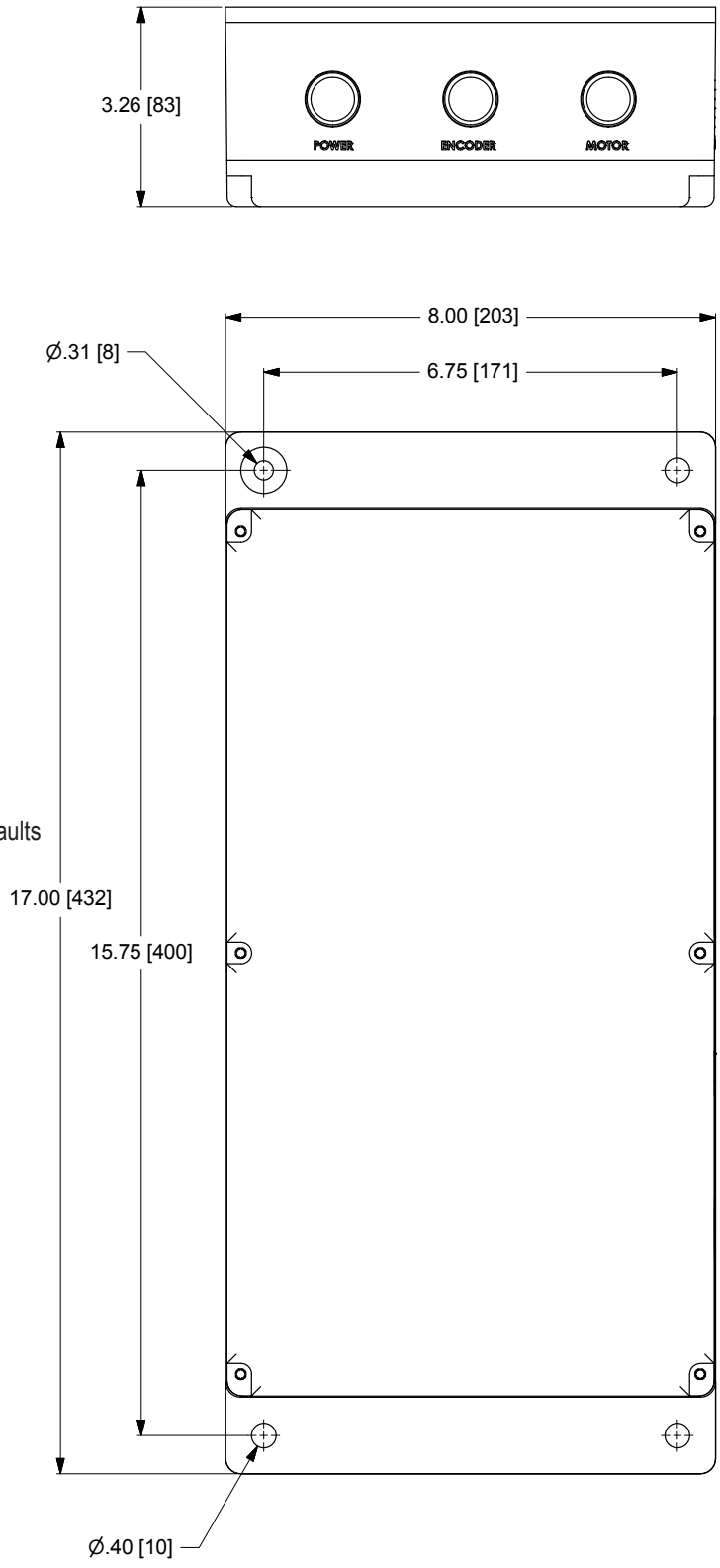
Floor addresses where EUD is STOP are shown in the Number Display

Doors will not run if any EUD is STOP on the same channel

8.0 TECHNICAL SPECIFICATIONS

27450 WIRELESS BRIDGE CONTROLLER

Technical Data	Specification
Input Power	208 - 240Vac - 5A - 6A, 50/60Hz
Supply Voltage	208-240V, 1 Ø AC, 50/60Hz
Output Power	0-240Vac 4.2A Max 3Phase
Output Motor	0.75 kW (1 HP)
Digital Inputs	8 provided, 12-30V, AC or DC
Encoder Input	Incremental, NPN, 12VDC, 120 PPR
Relay Outputs	8 provided, Form C, 10A, 125VAC
Input Indicators	LCD screen
Output Indicators	LED
Enclosure Protection	NEMA 1,4,4X (indoor use only) - IP 65
Temperature	40 Deg C Max
Dimensions	200mm x 430mm x 85mm (W x H x D)
Mounting Method	4 screw holes on outside perimeter
Equipment Class	Digital Transmission System
Wireless Network	802.15.4 LR-WPAN standard
Wireless Frequency	2.4GHz
Wireless Output	0.094 Watts
Wireless Range	100m floor-to-floor up to 99 floors
User Interface	On board pushbuttons with visual display
Visual Display	50mm x 40mm back-lit LCD
Parameters	User adjustable with factory presets and defaults
Learn Adjustment	Automatic by user parameter
Landing Door Address	User selectable parameter
Car or Landing Door Type	User selectable parameter
Fail Safe Condition	Door Stop if communication lost
Battery Specifications	Type: NiMH Size: AAA Capacity: 700mAh Voltage: 1.2V



Standards

Elevators and Lifts
ASME-A17.1/CSA-B44
ASME-A17.5/CSA-B44.1
EN 81
EN 12015 and EN12016
Telecommunication
FCC
Industry Canada
R&TTE Directive

Certification

ETL Listing and Certification Mark
FCC Grant of Equipment Authorization
Industry Canada Certificate of Acceptance

9.0 EC DECLARATION OF CONFORMITY

FCC STATEMENT
Wireless Radio FCC ID: 2AYO9-WFDCRFIF
Equipment Class: Digital Transmission System
Notes: 802.15.4 Transceiver Module

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions: (1) the device may not cause harmful interference, and (2) the device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by The Peelle Company could void the user's authority to operate the equipment under FCC.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The user should avoid prolonged exposure within 20cm of the antenna, which may exceed the FCC radio frequency exposure limits.

ISED STATEMENT
Model: 2745
IC: IC 26868-WFDCRFIF

This device complies with Innovation, Science and Economic Development Canada's license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. The user should avoid prolonged exposure within 20cm of the antenna, which may exceed the ISED radio frequency exposure limits.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux rayonnements définies par l'ISDE pour un environnement non contrôlé. L'utilisateur doit éviter une exposition prolongée à moins de 20 cm de l'antenne, qui pourrait excéder les limites d'exposition aux fréquences radio ISED

10.0 EC DECLARATION OF CONFORMITY

Manufacturer:
The Peelle Company Ltd.
195 Sandalwood Pkwy W.
Brampton, Ontario L7A 1J6
CANADA

We, The Peelle Company Limited of Brampton, Ontario, declare that the product designated below complies with the relevant fundamental requirements of Article 3 of the Lifts directive 2014/33/EU insofar as the product is used as intended and the following standards applied:
Product: Wireless Freight Door Controller, 2.4GHz, 802.15.4 Transceiver Module
Manufactured by: The Peelle Company Ltd. Trade mark: Peelle
Model: WFDC 27451 Car Door, WFDC 27452 Landing Door
Environment of use: Residential, commercial and light industry

Standards:
-Lifts EN 81-20:2014 Safety rules for the construction and installation of lifts
EN 12015:2014 Electromagnetic compatibility – Emissions
EN 12016:2013 Electromagnetic compatibility – Immunity
EN 61000-6-1:2007 Electromagnetic compatibility (EMC)

-Telecommunication EN 50371, EN 301 489-1, EN 301 489-17, EN 300 440

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Place of issue: Brampton, Ontario, CA

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