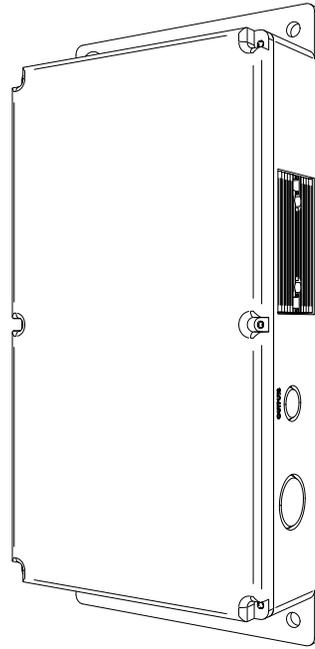


GUIDE 239



SERIAL CONTROLLER

INSTALLATION & INTERFACE GUIDE

CHANGE PARAMETER 53 TO 01
FOR SERIAL / WIRED COMMUNICATION

VSD | VERTICALLY
SLIDING
DOORS



THE PELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

Guide No. 239

SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE

Date: Aug 2020

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.

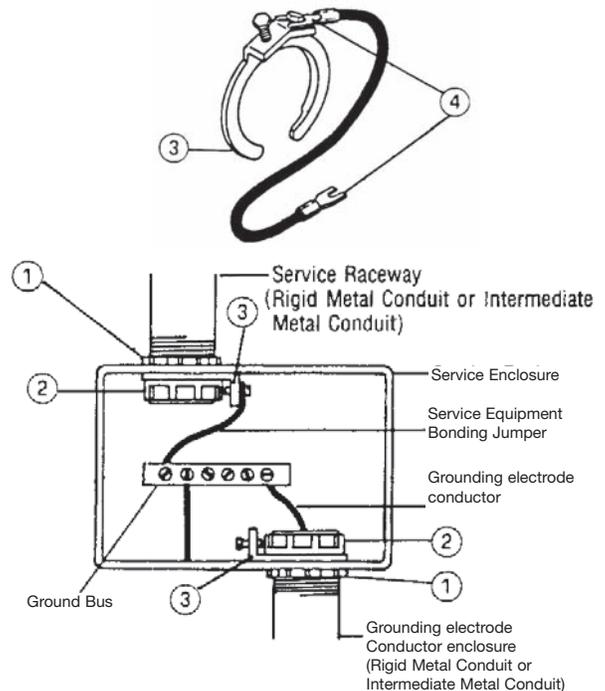
WARNING

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*



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Contents

Landing Door Controller Mounting.....	1
Landing Door Wiring Layout - Standard Operators.....	2
Landing Door Wiring Layout - Extra High Torque Operators.....	3
Landing Door Power Connections.....	4
Landing Door Encoder.....	5
Landing Door Operators - Standard Operators.....	6
Landing Door Operators - Extra High Torque.....	7
Landing Door Emergency Unlocking Device (EUD).....	8
Landing Door Zone Switch (ZNS).....	9
Serial Communication.....	10
Landing Door Hall Pushbuttons.....	11
Landing Door Light Curtain (Optional).....	12
Car Door Installation and Wiring Layout.....	13
Car Door Power Connections.....	14
Car Door Encoder.....	15
Car Door Operator.....	16
Car Door Retiring Cam Motor.....	17
Serial Communication.....	18
Car Door Reversing Edge (optional).....	19
Car Door Buzzer.....	20
Car Door Commissioning.....	21
Landing Door Commissioning.....	22
Landing and Car Door Operation and Testing.....	23
Sequence of Operation.....	23
Power up Mode / Loss of Power.....	23
Car Door Controller Input Connections.....	24
Car Door Controller Output Connections.....	25
Door Motion Profiles and Parameters.....	26
Troubleshooting - INDEPENDENT MODE.....	29
Troubleshooting - AUTOMATIC MODE.....	30
Troubleshooting - ELEVATOR INTERFACE OPERATION.....	31
Troubleshooting - Error Codes.....	32
Troubleshooting - Landing Door LCD.....	33
Troubleshooting - Car Door LCD.....	34
Technical Specifications.....	35
EC Declaration of Conformity.....	36



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

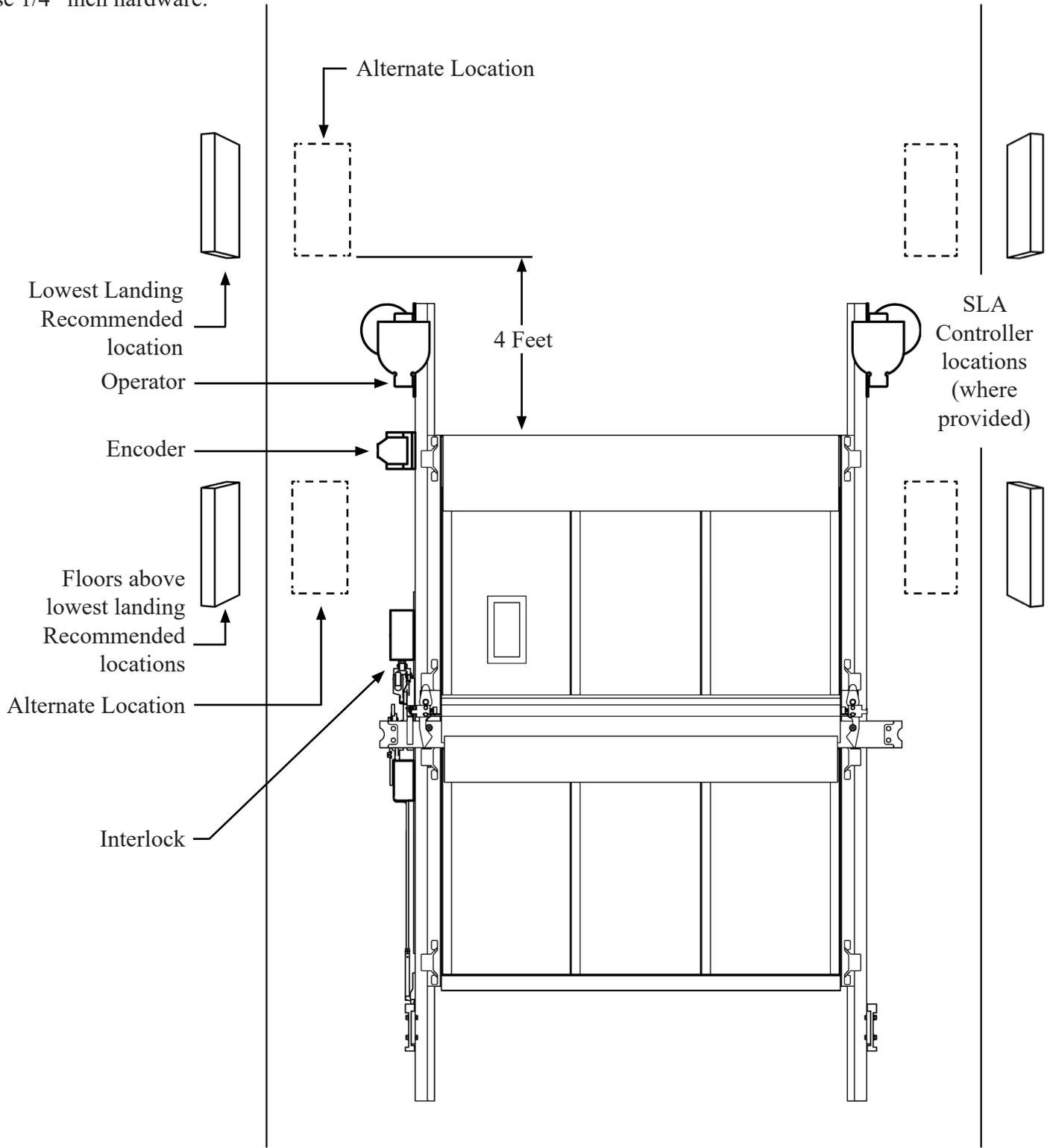
Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Landing Door Controller Mounting

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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

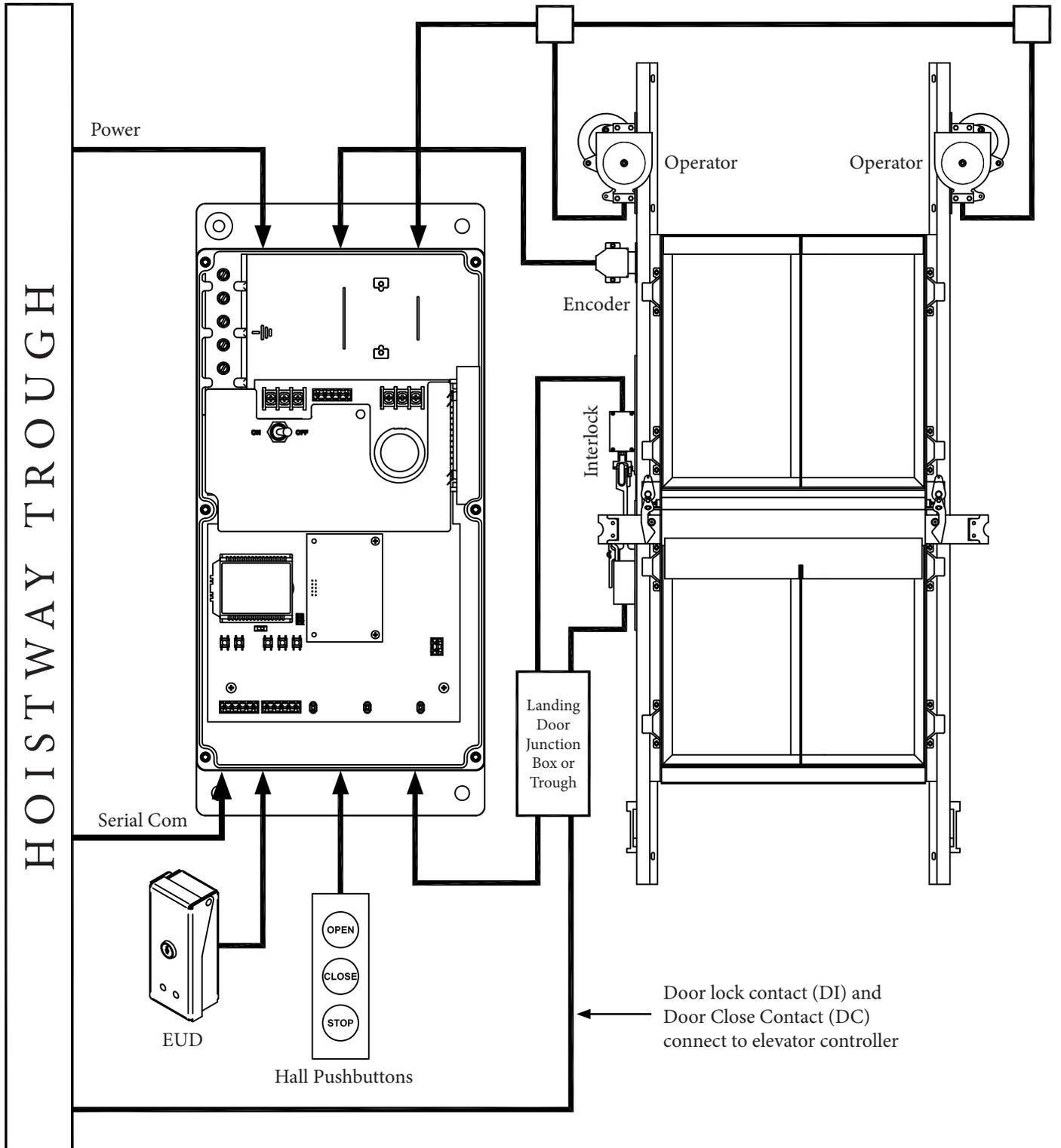
1

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

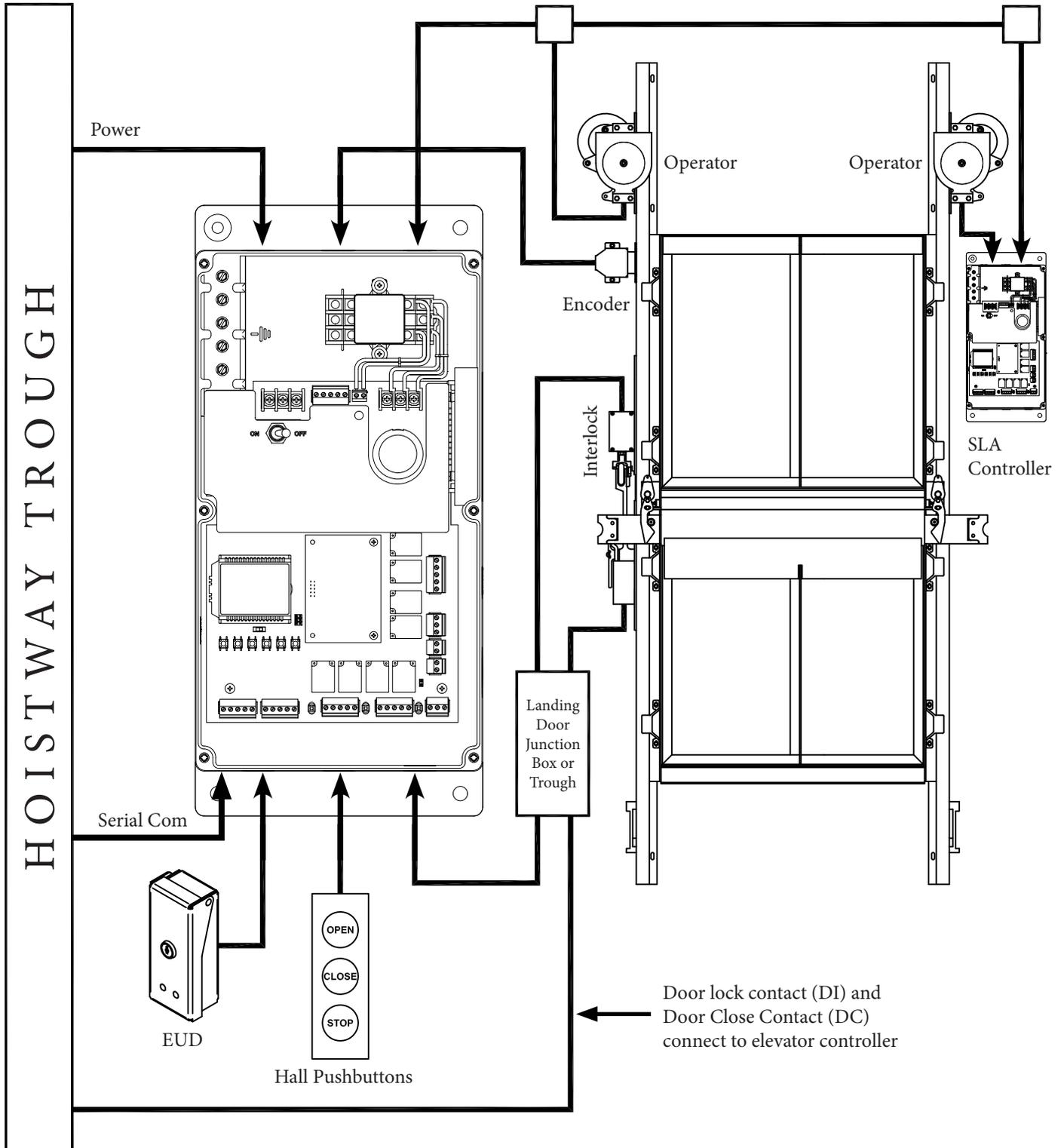
Date: Aug 2020

Landing Door Wiring Layout - Standard Operators



THE PEELLE COMPANY
 FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
 TECHNICAL SUPPORT 1-800-787-5020 ext 275

Landing Door Wiring Layout - Extra High Torque Operators

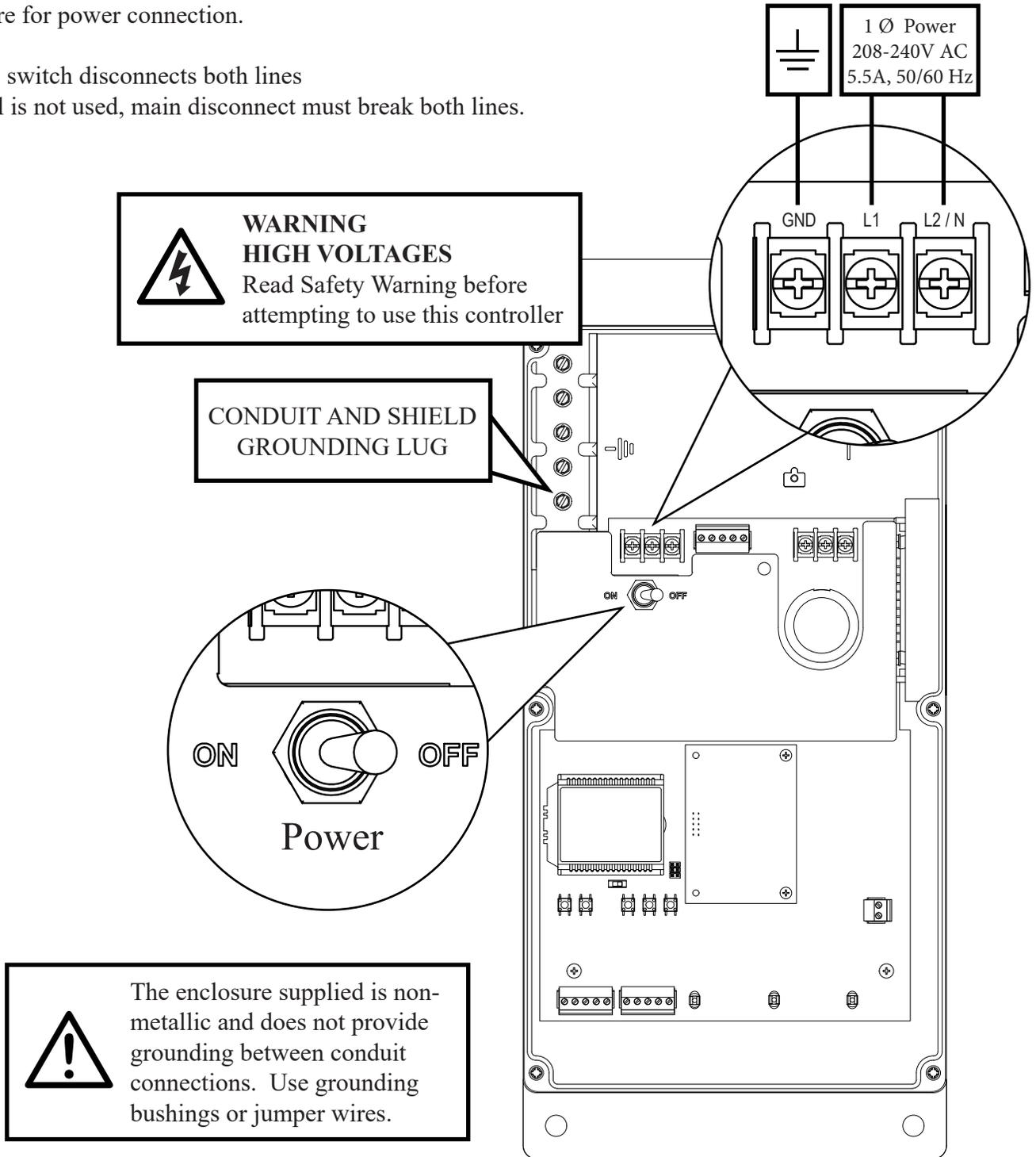


THE PEELLE COMPANY
 FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
 TECHNICAL SUPPORT 1-800-787-5020 ext 275

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.

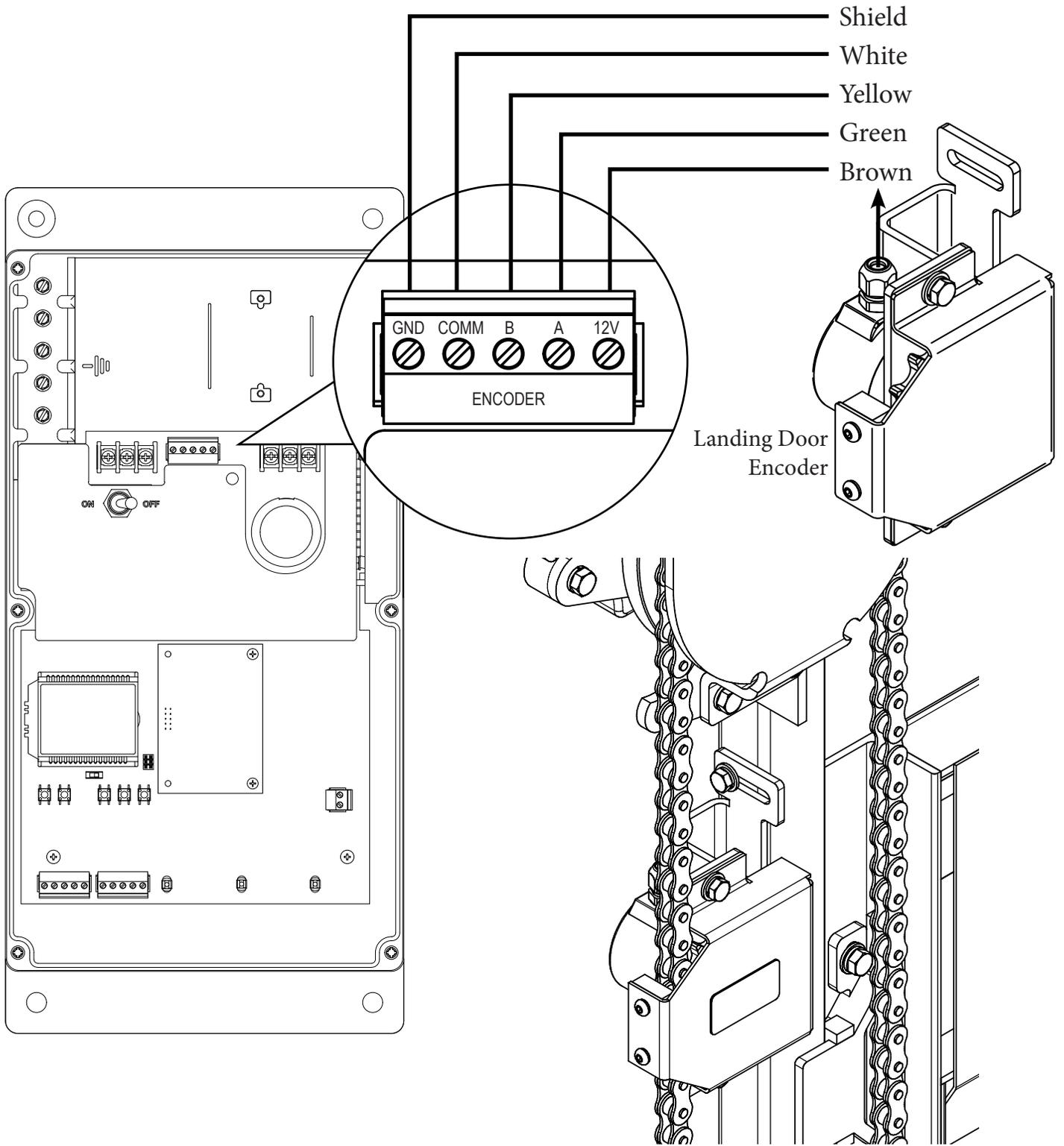
- ON/OFF switch disconnects both lines
- If neutral is not used, main disconnect must break both lines.



THE PEELLE COMPANY
FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

Landing Door Encoder

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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

5

Guide No. 239

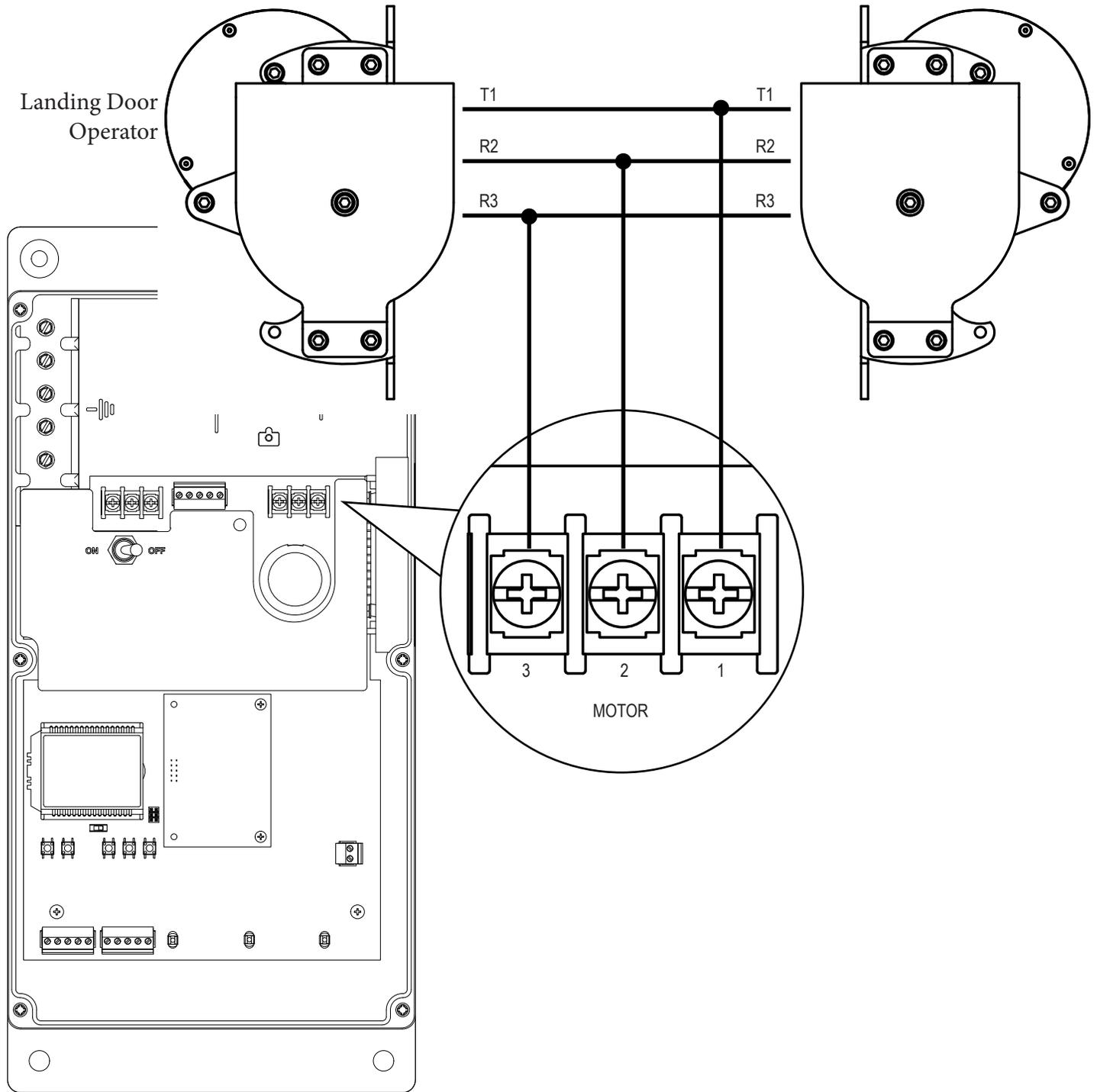
**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

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).



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

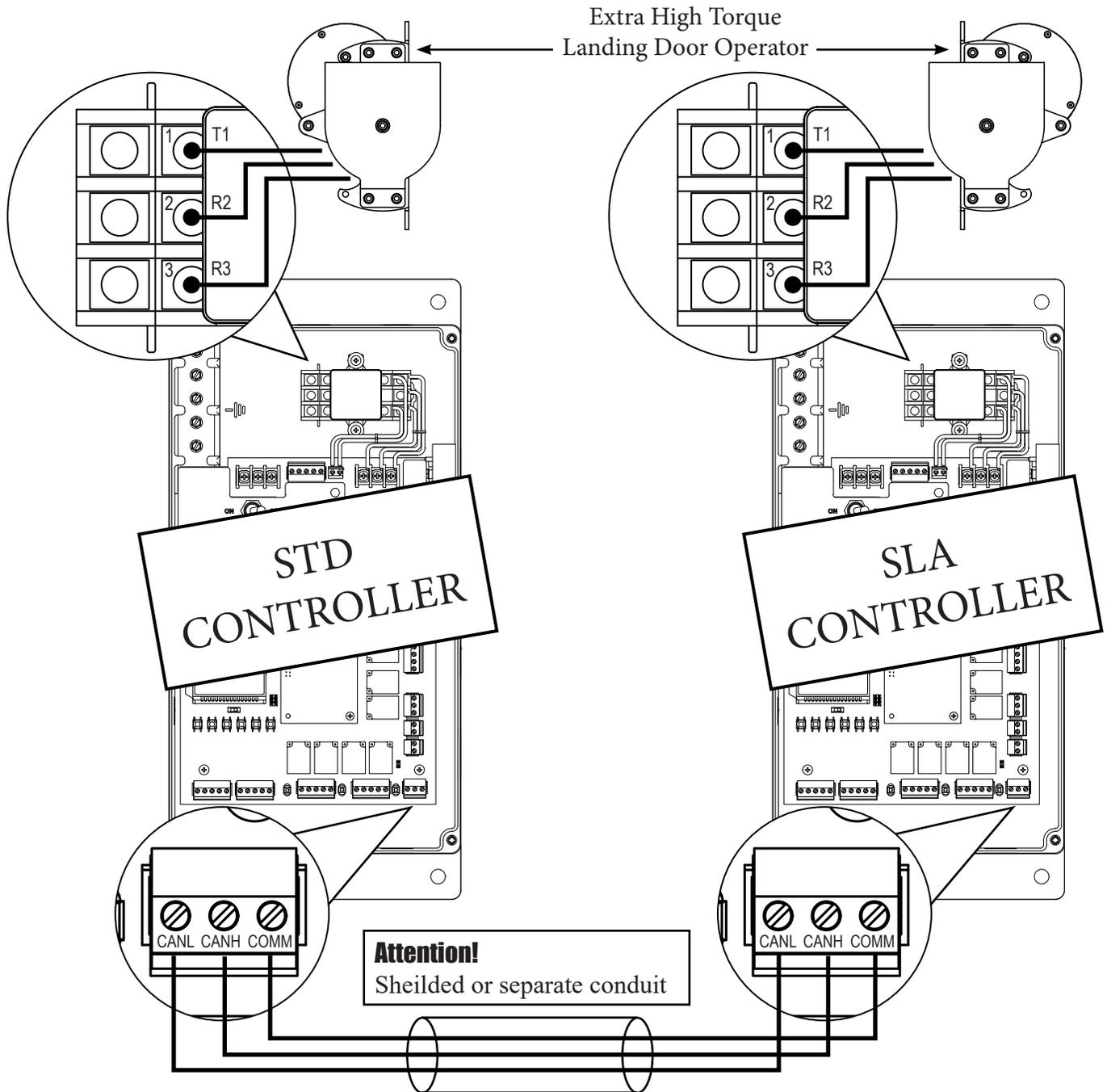
Date: Aug 2020

Landing Door Operators - Extra High Torque

Use #18AWG [1mm] wire in conduit for motor connection. Do not combine motor wires with control wires in same conduit. Connect CAN and COMM wires between controllers.

Notes

1. Low speed winding is not used. Cap black wires separately (R4-R5)
2. Use shielded wire or separate conduit for CAN bus connection SLA



THE PEELLE COMPANY
FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

Guide No. 239

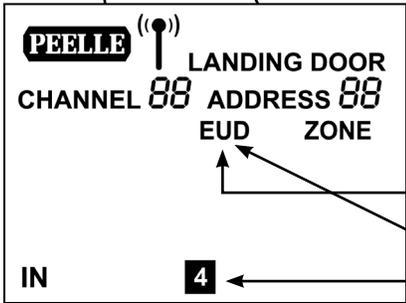
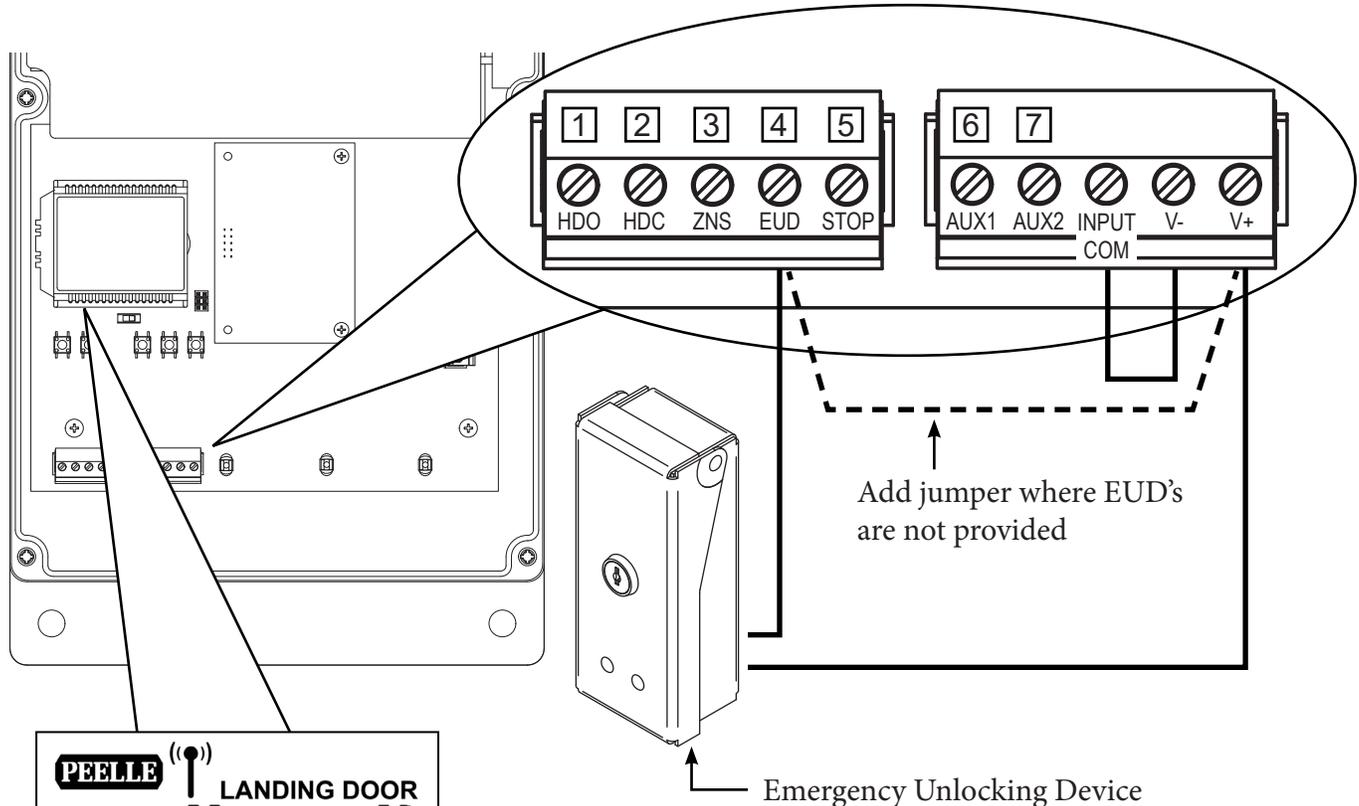
**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Landing Door Emergency Unlocking Device (EUD)

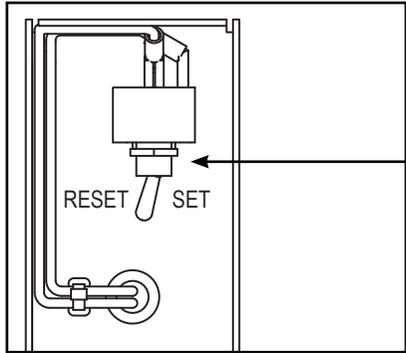
The Emergency Unlocking Device is located on the landing side and contains a toggle switch which must be wired to the controller.

NOTE: Only in jurisdictions not requiring unlocking devices, a jumper needs to be 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.

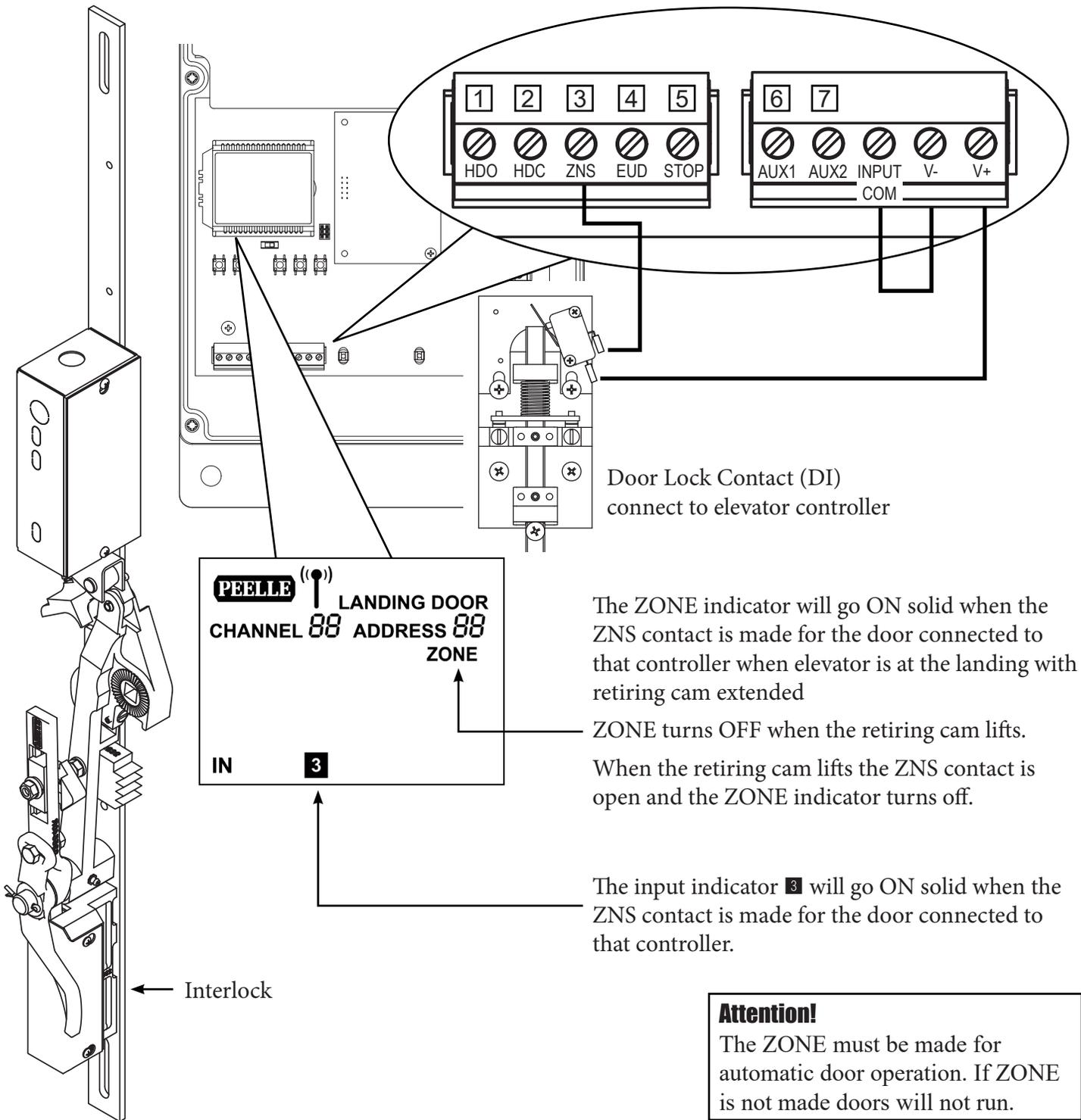
(RUN is normally closed)

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.

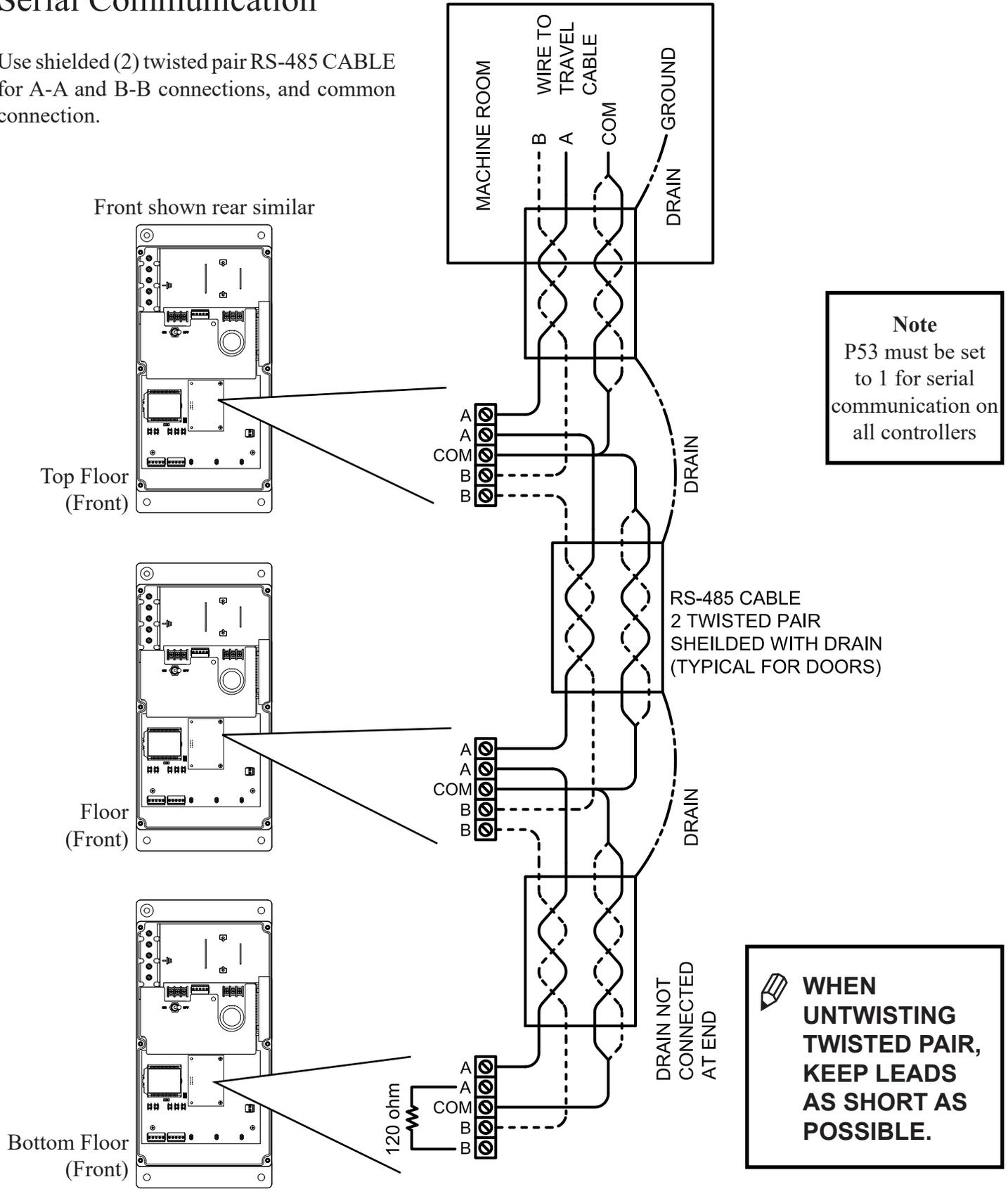
Landing Door Zone Switch (ZNS)

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.



Serial Communication

Use shielded (2) twisted pair RS-485 CABLE for A-A and B-B connections, and common connection.

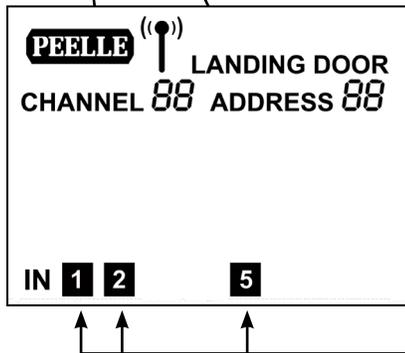
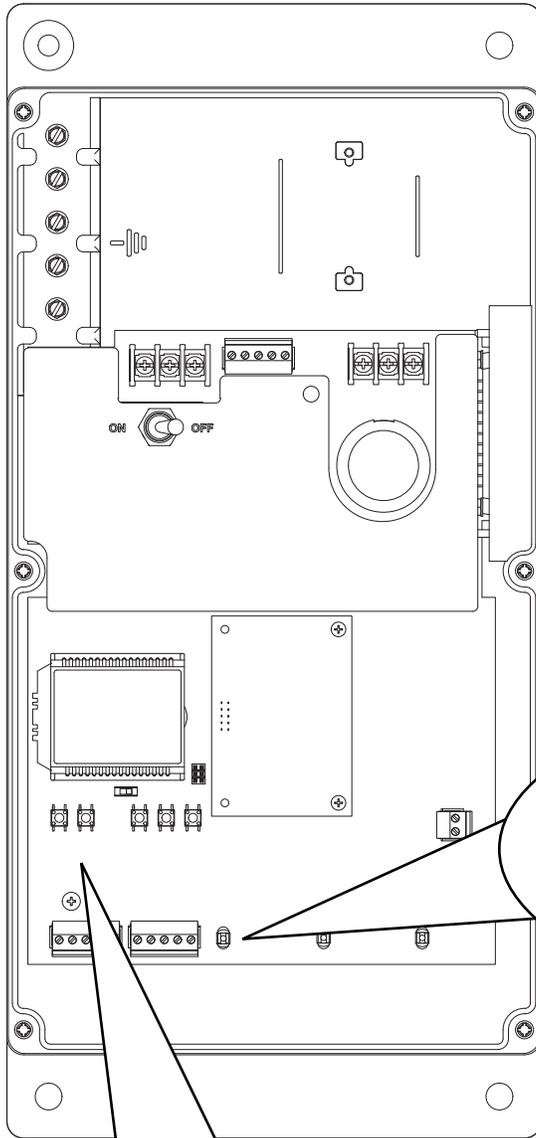


Note
P53 must be set to 1 for serial communication on all controllers

WHEN UNTWISTING TWISTED PAIR, KEEP LEADS AS SHORT AS POSSIBLE.



Landing Door Hall Pushbuttons



HALL DOOR OPEN BUTTON (HDO) **1**

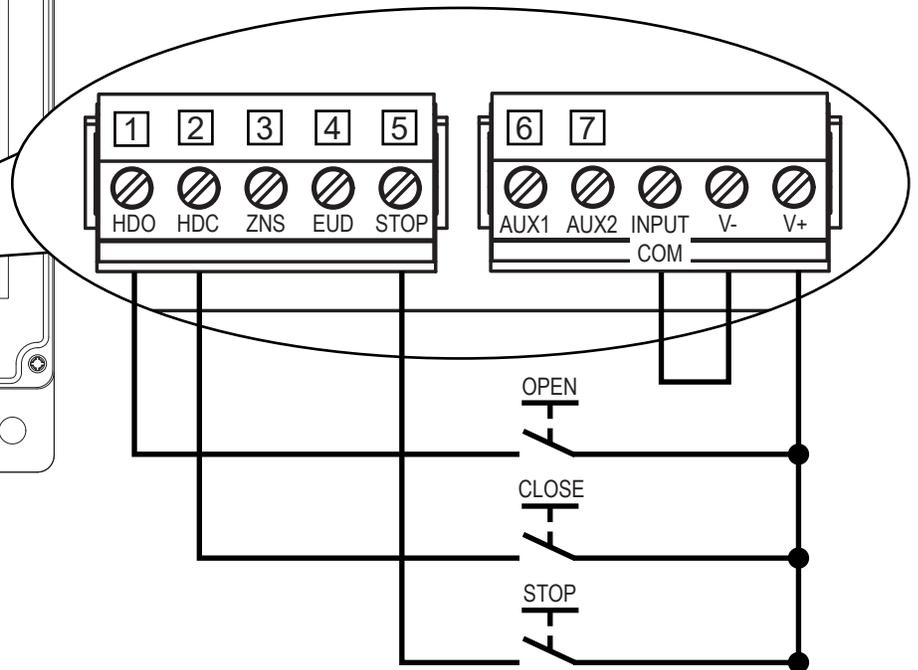
Where provided, wire landing station door OPEN pushbuttons as shown. When elevator car is within landing ZONE, pushbutton inputs will be transmitted to the Car Door controller for connection to elevator control.

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.



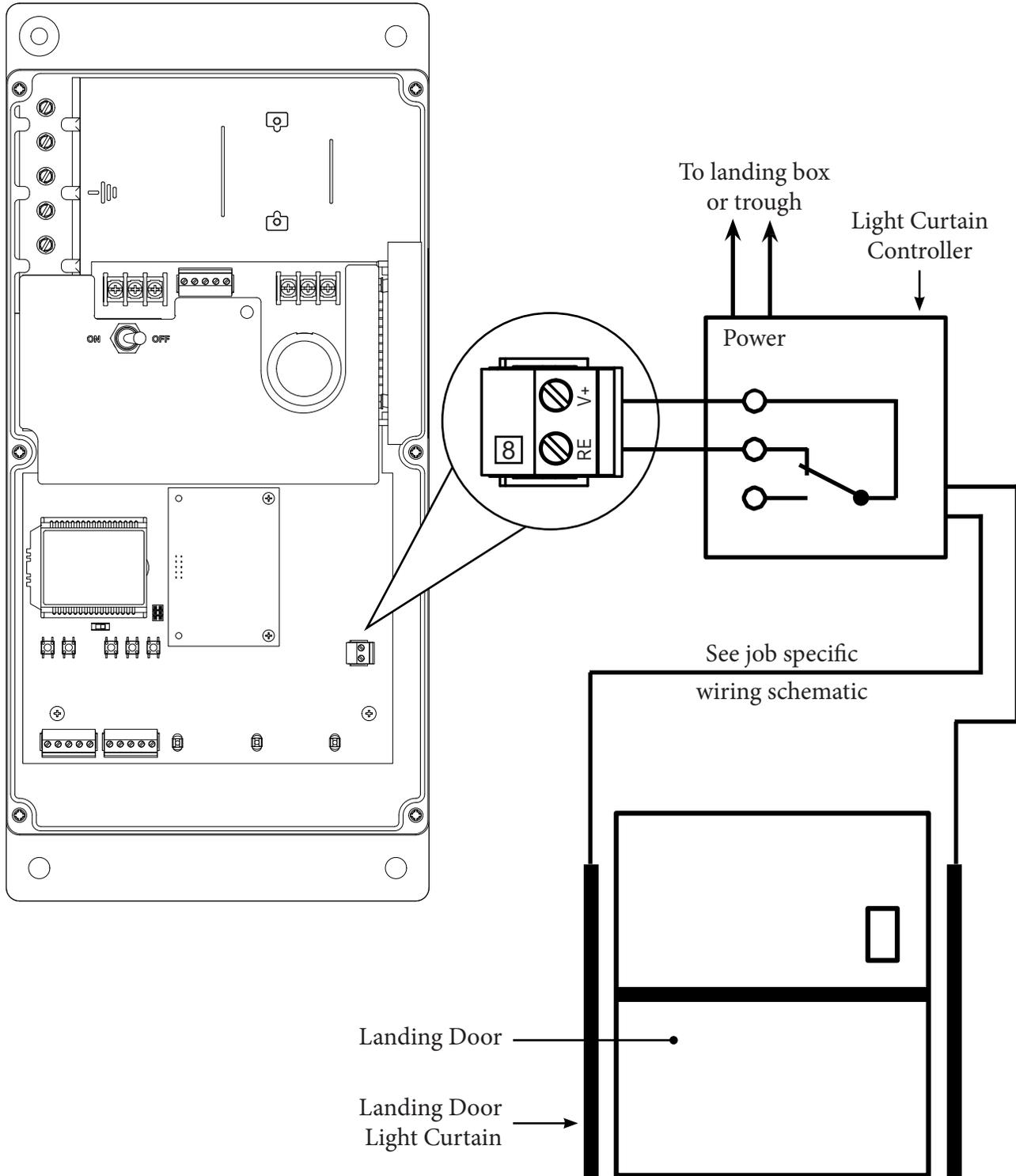
The input indicators **1**, **2** and **5** will go ON when the pushbutton is activated for the door connected to that controller.



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



THE PEELLE COMPANY
FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

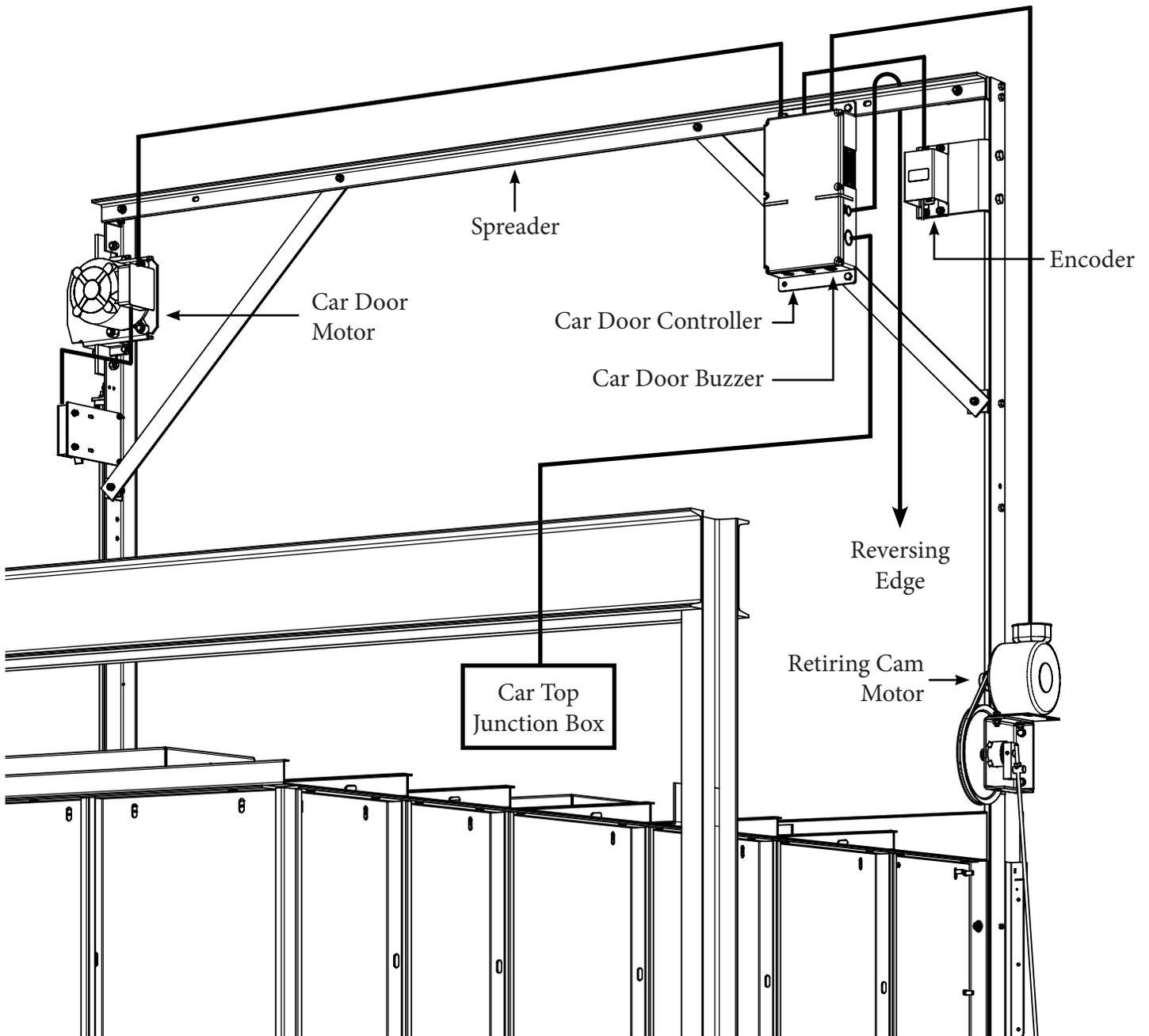
12

Guide No. 239
SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE

Date: Aug 2020

Car Door Installation 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.



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

13

Guide No. 239

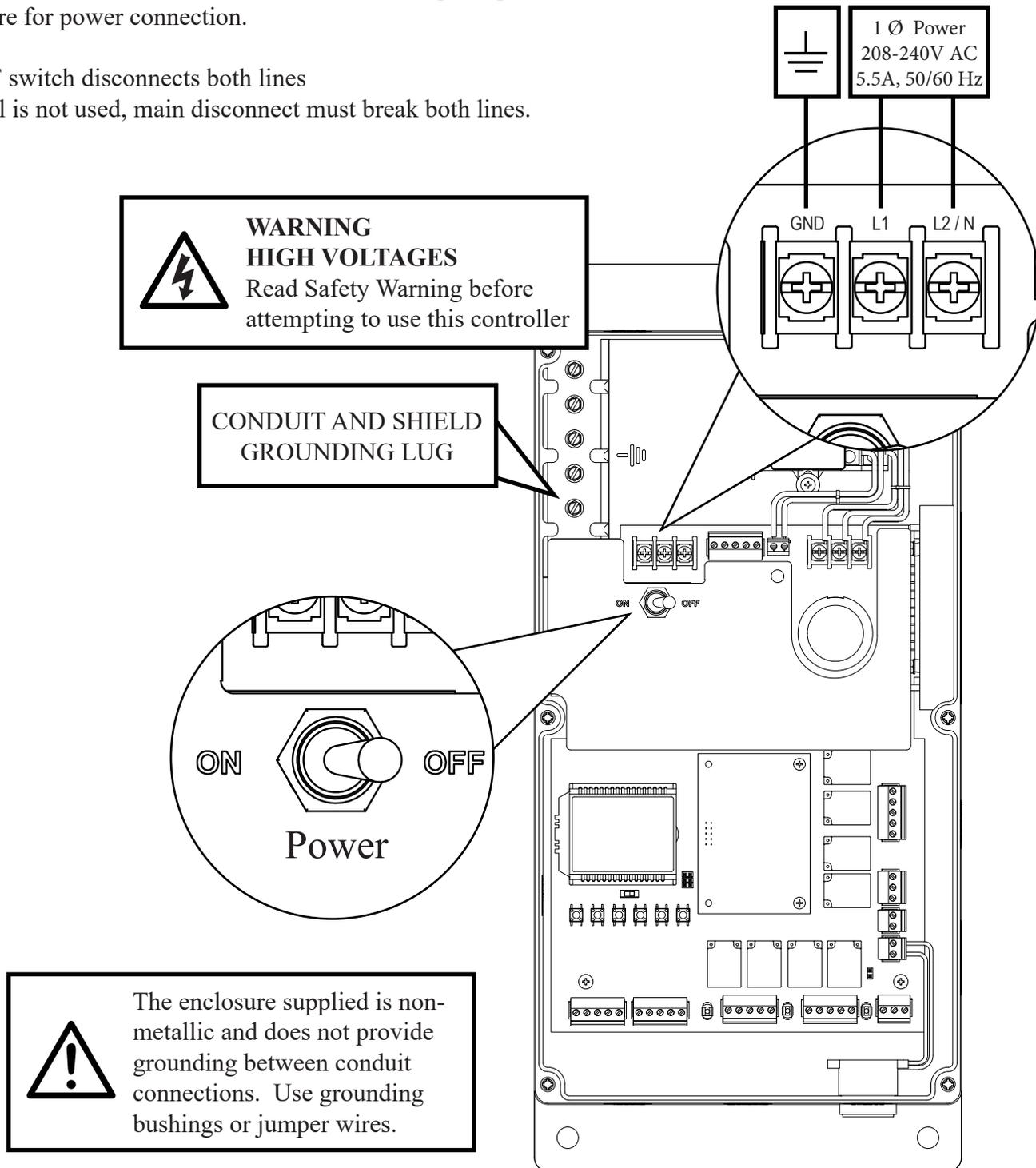
**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

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.



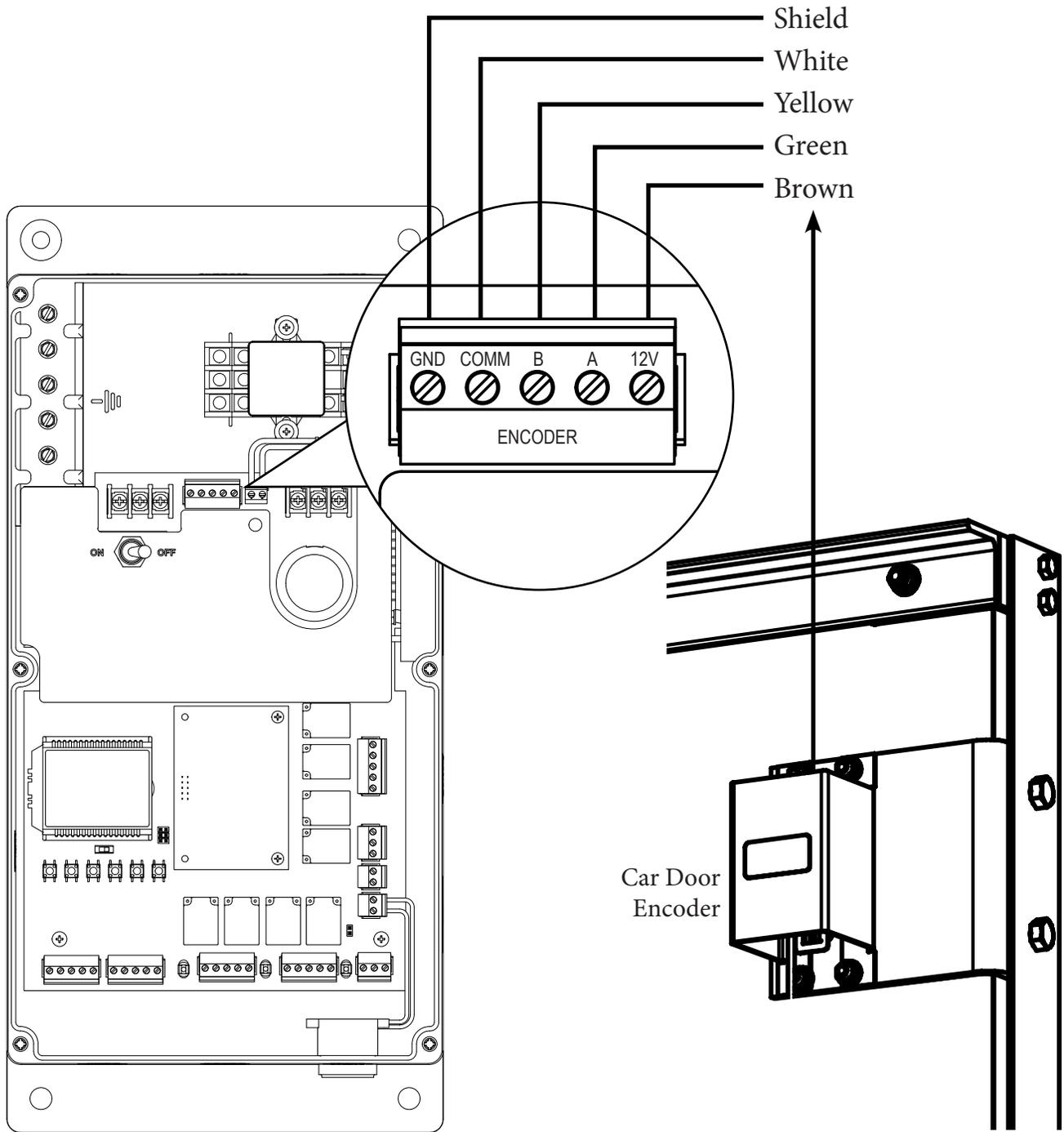
THE PELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

Car Door Encoder

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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

15

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

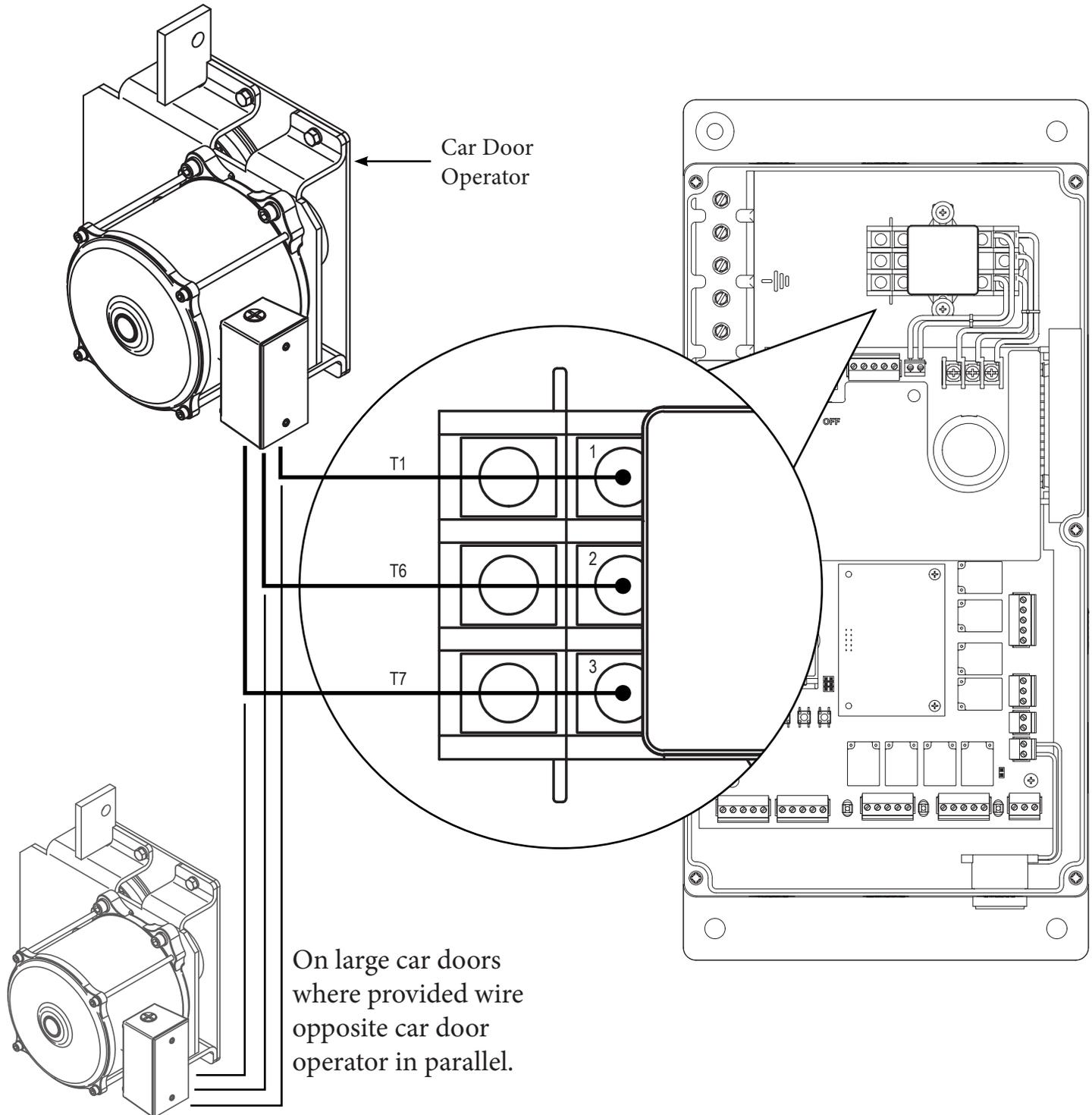
Date: Aug 2020

Car Door 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).



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

16

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Car Door Retiring Cam Motor

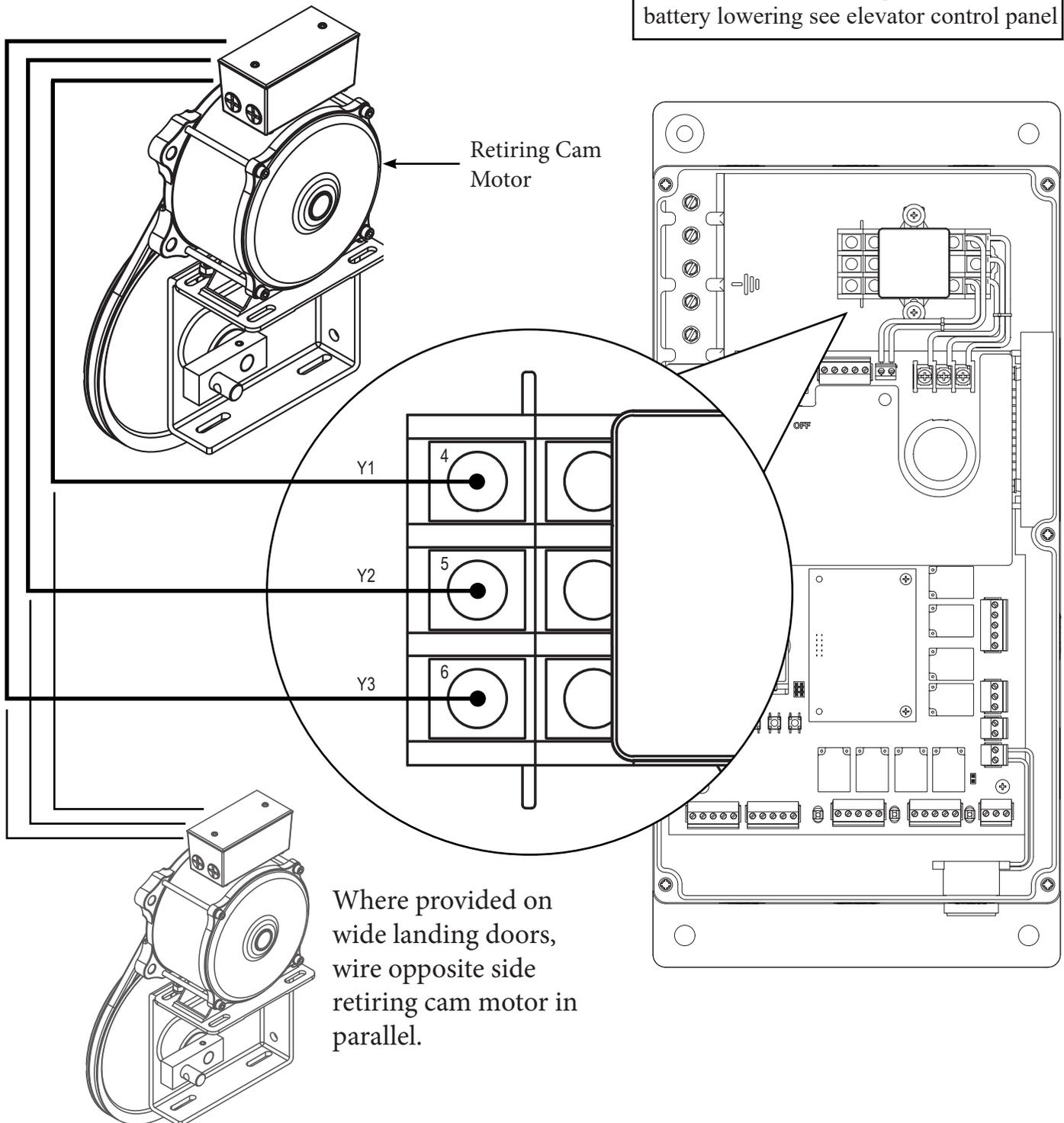
Use #18AWG [1mm] wire in conduit for motor connection.
Do not combine motor wires with control wires in same conduit.

Attention!

220 Volt 3 Ø Retiring Cam Motors Only

Attention!

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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

17

Guide No. 239

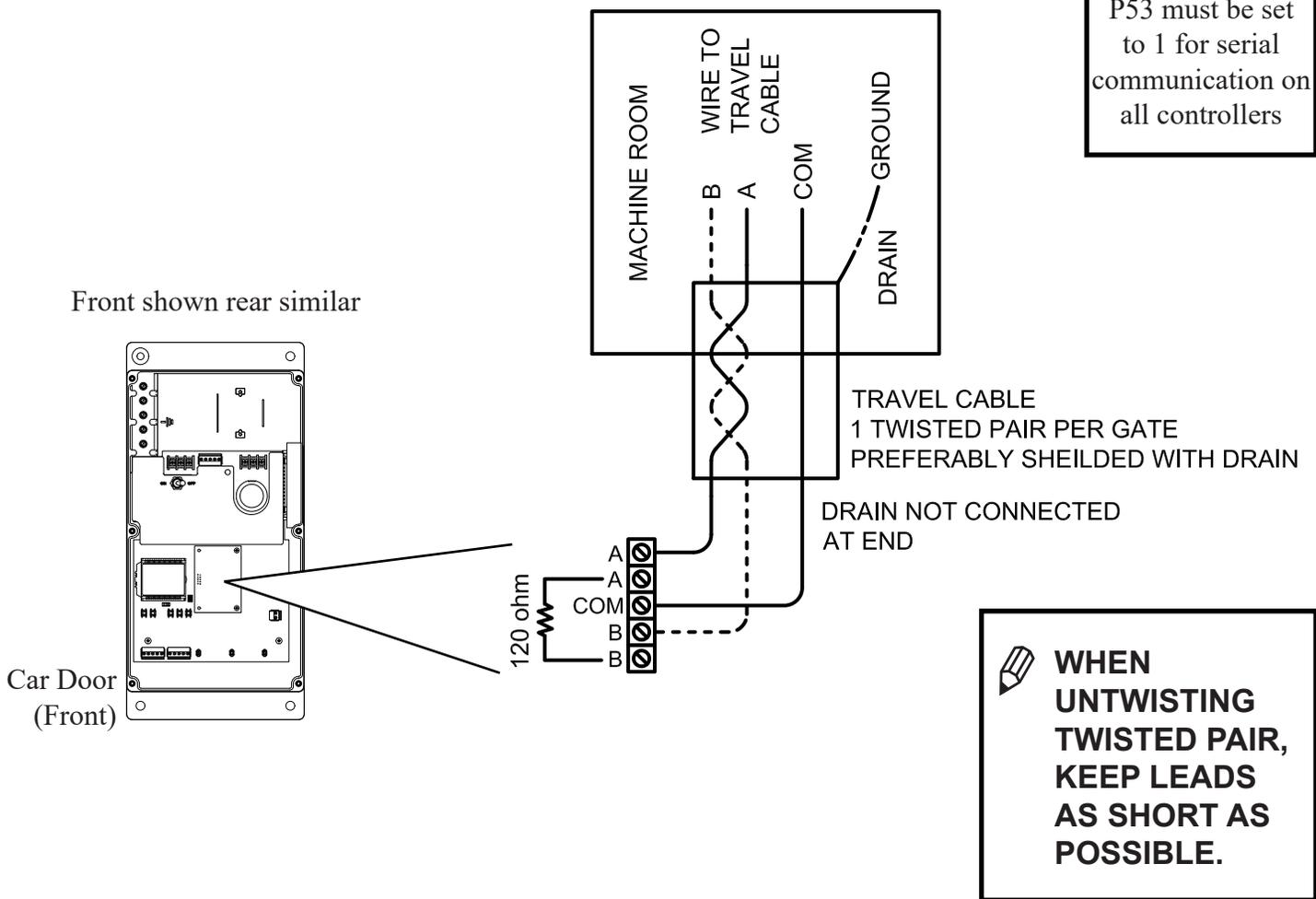
**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Serial Communication

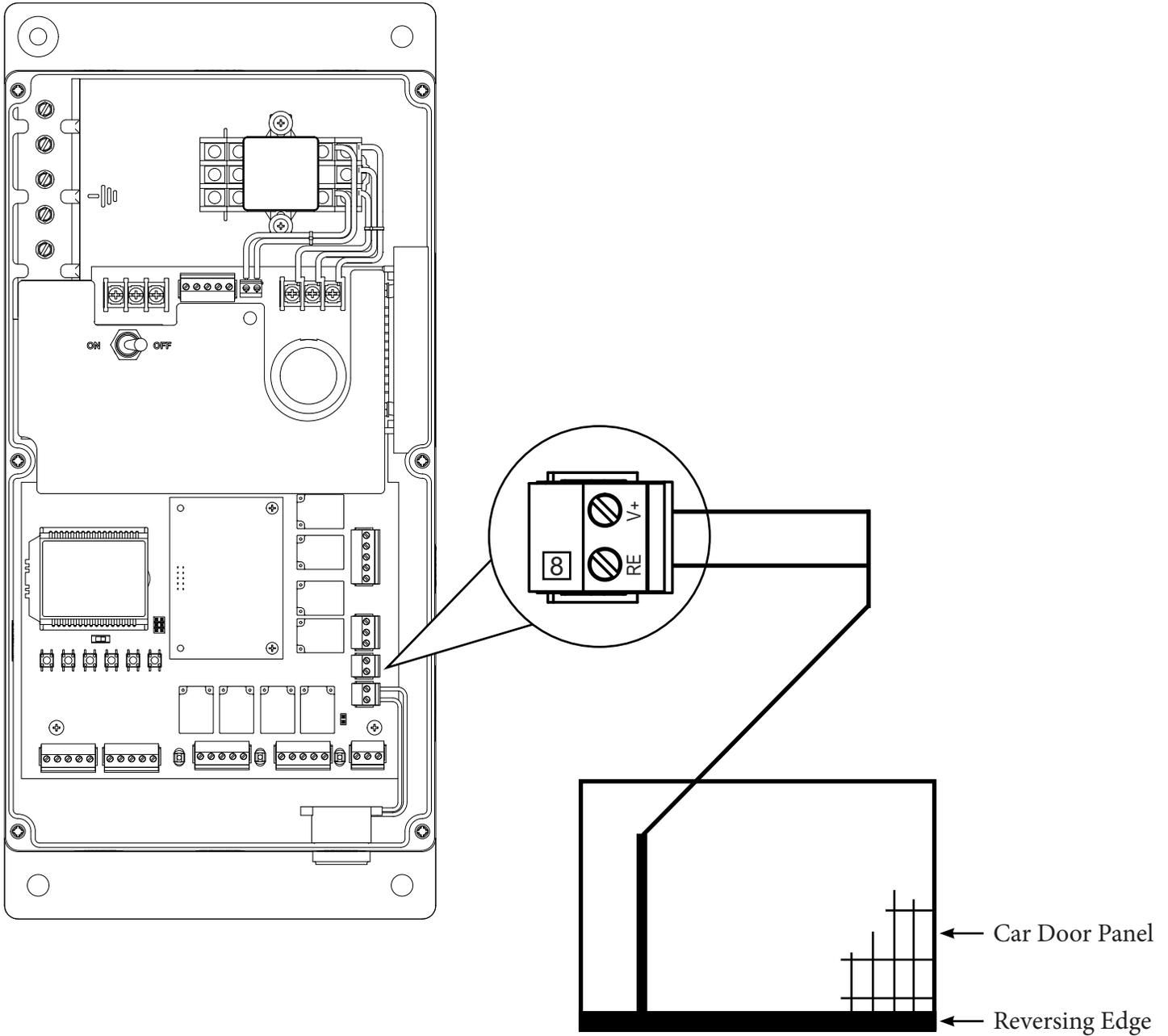
Use shielded twisted pair (STP) travel cable for A-A and B-B connections use #18 AWG (1mm) for common connection.

Note
P53 must be set to 1 for serial communication on all controllers



Car Door Reversing Edge (optional)

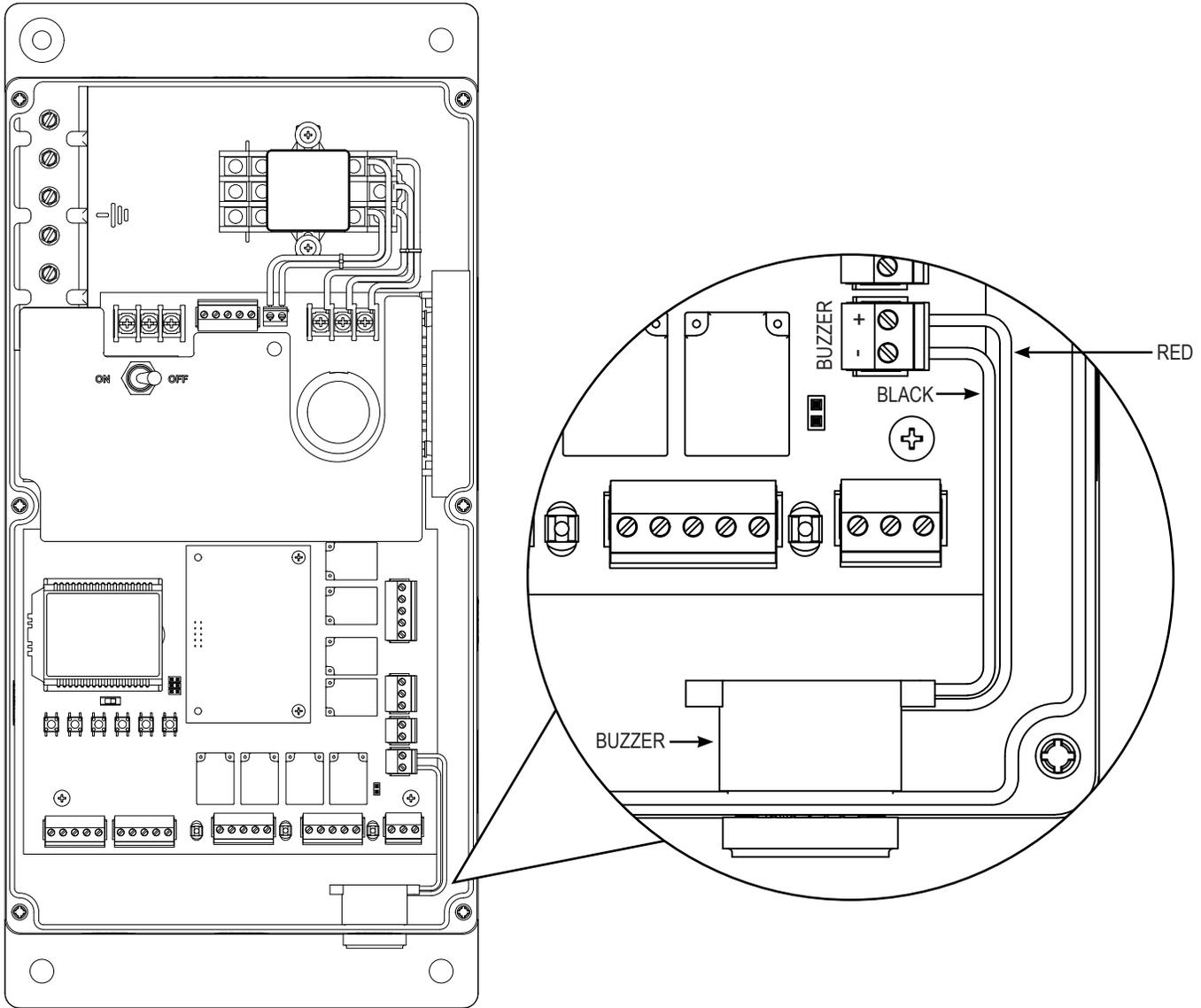
Wire reversing edge as shown where provided.



THE PELLE COMPANY
FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

Car Door Buzzer

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



Attention!

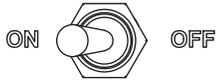
Warning Buzzer is mounted in Auxiliary strobe controller (27465) if strobe light is provided



THE PELLE COMPANY
FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

Car Door Commissioning

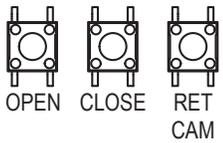
Make sure all Landing Doors and Car Doors are adjusted and run freely by hand in the door guides without binding or sticking.



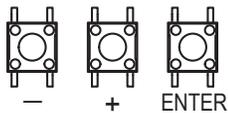
1. Turn power ON



2. Set AUTO<>IND switch to IND



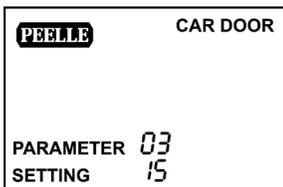
3. Using the OPEN, CLOSE and RETCAM cam buttons, ensure the car door operator(s) and retiring cam motor(s) are phased for correct rotation. If a motor rotates in the wrong direction, switch any two of the three motor wires



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 53 to 01.

The LCD display should NOT have a Channel # showing.

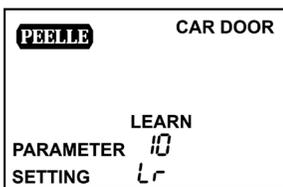


6. Change parameter 02 to "Cd" setting.

The LCD display should now read "CAR DOOR".

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.

Tweaks



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.

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.

Tweaks



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

If retiring cam top assembly does not completely lift retiring cam bottom assembly, set parameter 70 to 10.



9. Set AUTO<>IND switch to AUTO.



Landing Door Commissioning

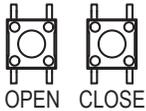
- Ensure Landing Door interlock is mechanically unlocked. Ideally car is level at floor with retiring cam extended
- Ensure all EUD switches are set to the SET position



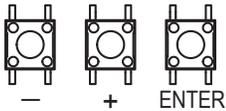
1. Turn power ON



2. Set AUTO<>IND switch to IND



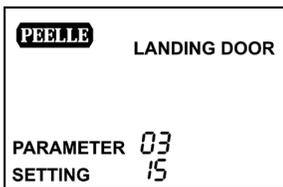
3. Using the OPEN and CLOSE buttons, ensure the landing door operators are phased for correct rotation. If a motor rotates in the wrong direction, switch any two of the three motor wires.



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 53 to 01.

The LCD display should NOT have a Channel # showing.

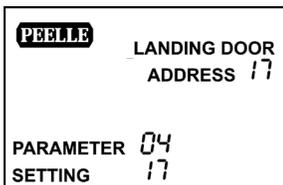


6. Change parameter 03 to match the channel of the adjacent car door. All the landing doors for the front line must have the same channel as the front car door. The LCD display will show what channel has been selected.

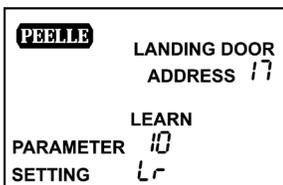
If you have “Extra High Torque Door Operators” (see pg 7)

Set SLA controller to SL, no further commissioning of the SLA controller is required.

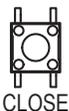
Commission the associated STD controller normally.



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.



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

22

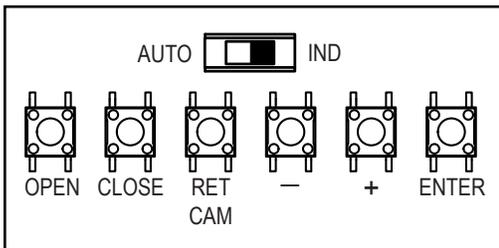
Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

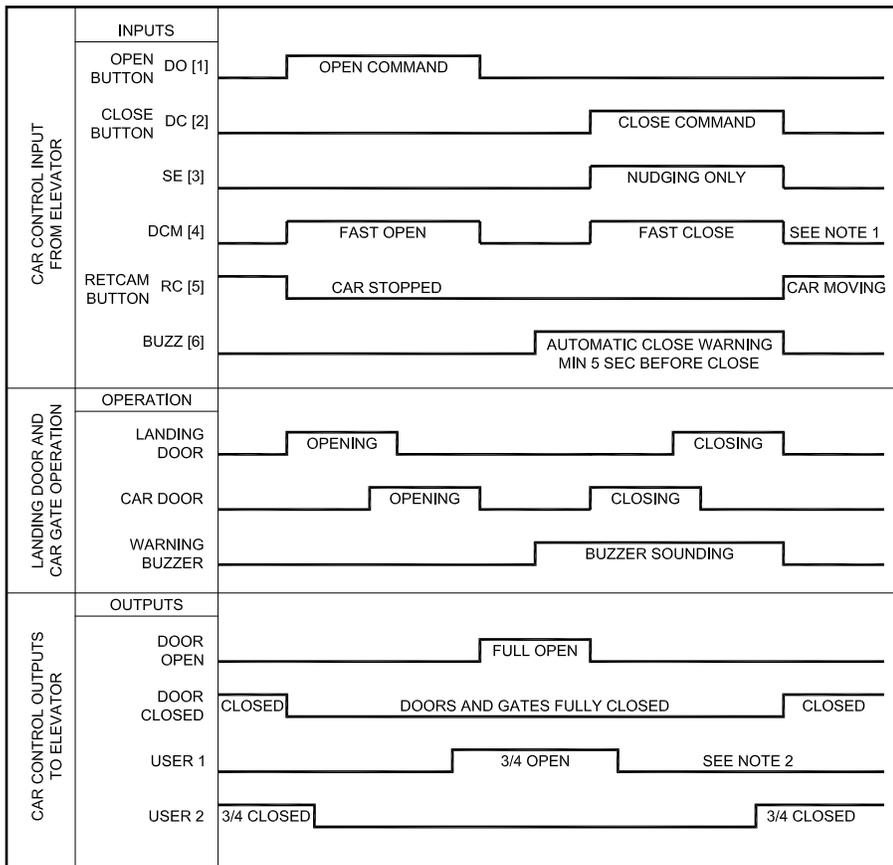
Landing and Car Door Operation and Testing

With elevator control inputs removed, test the following Sequence of Operation using the OPEN, CLOSE and RETCAM buttons.



1. Remove elevator control inputs to DO, DC, SE, DCM
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.

Sequence of Operation



Note 1

Landing door and car door operation will be simultaneous when DCM 4 input is used.

Note 2

For USER 1/2 options see parameter 65/85

Power up Mode / Loss of Power

After power-up with the elevator car at a landing, upon automatic initiation of either open or close, the landing door and car door will operate at learn speed until the final open or closed position is reached and held for 1 second. The control will reset the learned profile and initiate DOOR OPEN or DOOR CLOSED output. All unzoned landing door controllers will power up to normal profile See Parameter 93.

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.



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

23

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Car Door Controller Input Connections

Control Interface

Inputs to the car door controller are the only interface to the elevator control for door operation. Note: front and rear inputs are completely separate.

INPUT COM

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

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

DO - Door Open 2

Constant signal required to open doors

DC - Door Close 2

Constant signal required to close doors

SE - Nudging 3

Constant signal required with door close for car door slow speed closing in fire service phase 1 recall.

DCM - Fast Open / Close 4

Constant signal required with door CLOSE for landing door and car door simultaneous operation.

RC - Retiring Cam 5

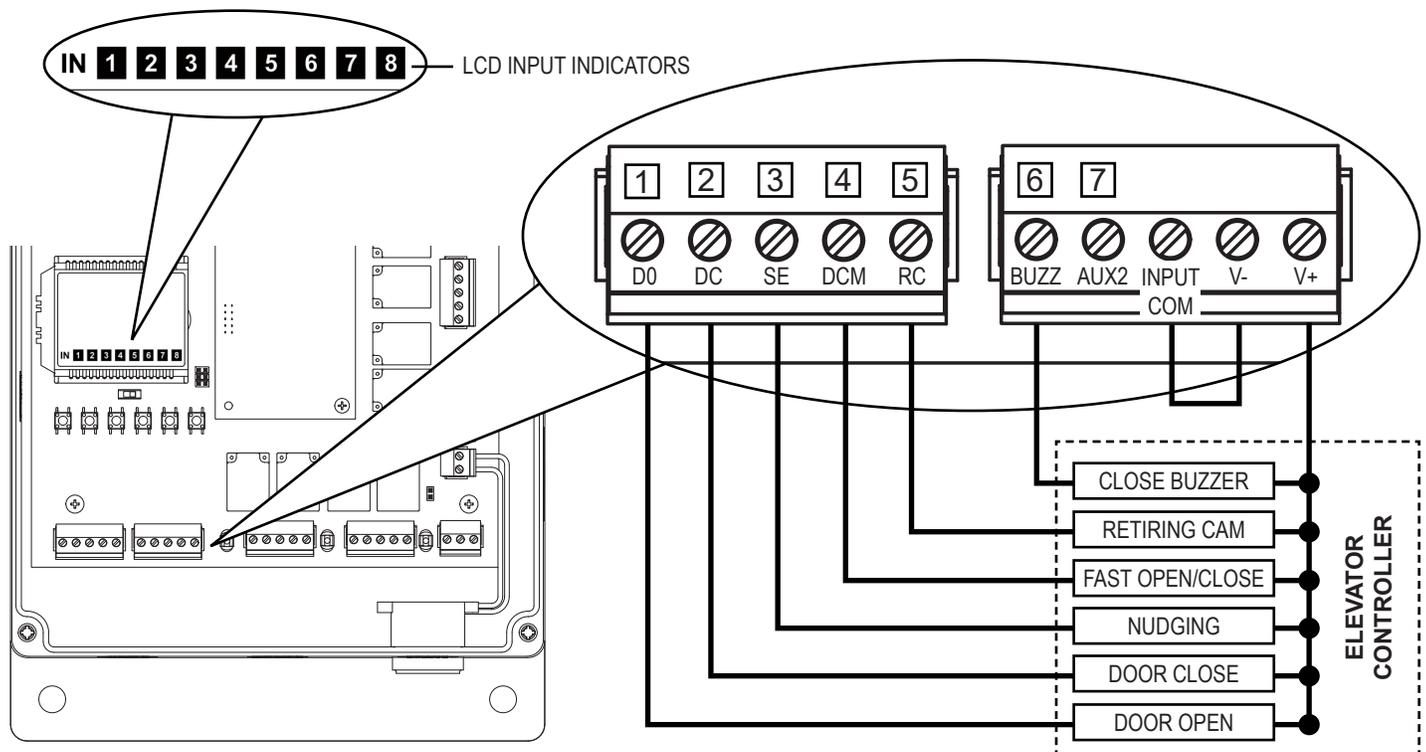
Input required to lift cam and move car. Signal should be low whenever car is stopped.

BUZZ - Close Warning Buzzer 6

Input required 5 seconds before automatic door close and until doors are fully closed.

AUX2 - 7 For input options see parameters 65/85/88

RE - Reversing Edge 8



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

24

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Car Door Controller Output Connections

HALL OPEN - output relay

Contact closes when zoned hall door open button is pressed.

HALL CLOSE - output relay

Contact closes when zoned hall door close button is pressed.

DOOR STOP - output relay

Normally open contact closes and normally closed contact opens, when zoned hall door stop button is pressed or doors are stuck.

REVERSING EDGE - output relay

Output - normally open contact closes and normally closed contact opens when edge is activated.

DOOR OPEN - output relay

Normally open contact closes and normally closed contact opens when landing door and car door are open.

DOOR CLOSED - output relay

Normally open contact closes and normally closed contact opens when landing door and car door are closed

Attention!

See Parameter 97 for power-up mode relay condition.

USER 1 - output relay

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

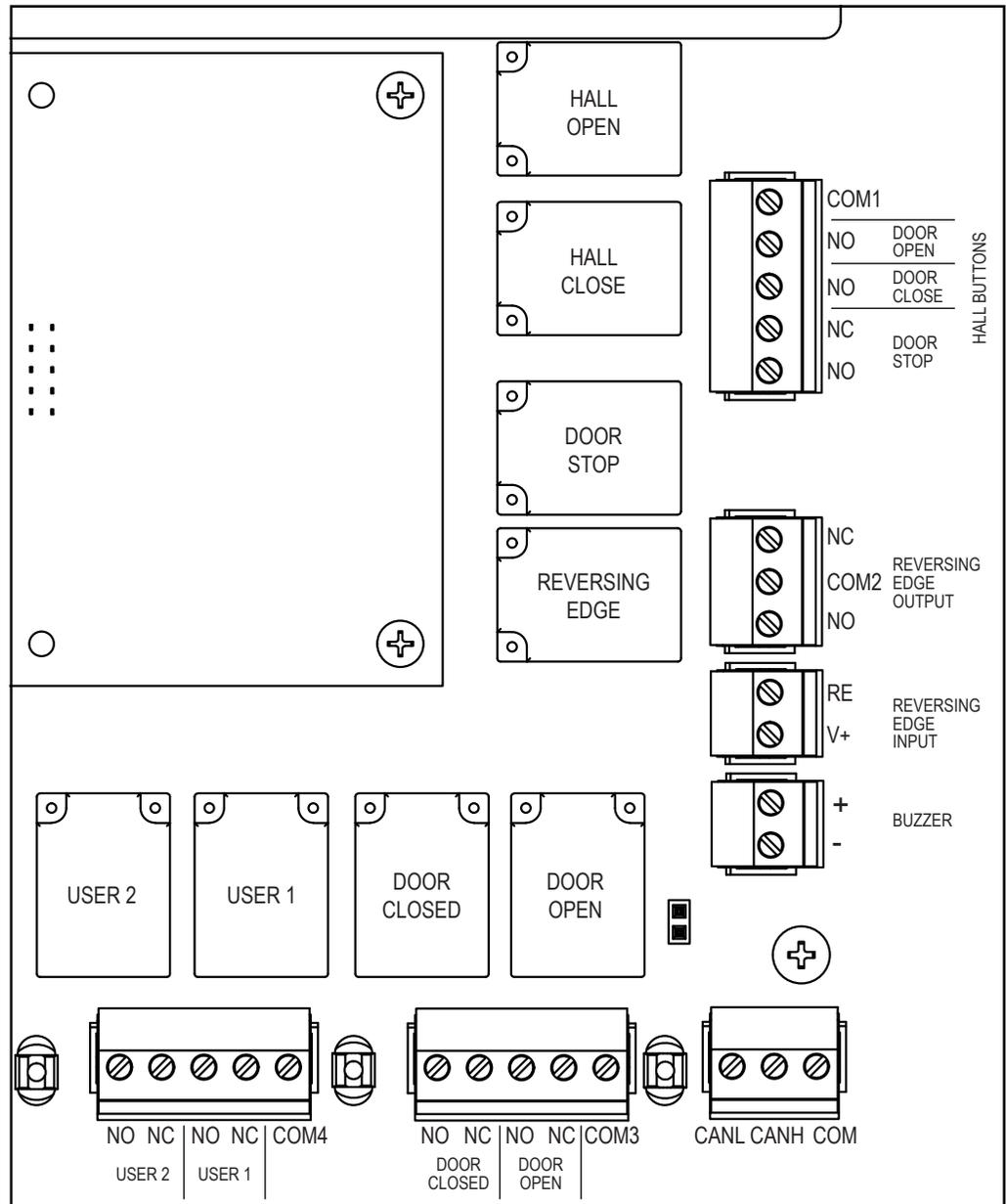
USER 2 - output relay

Normally open contact closes and normally closed contact opens when both landing door and car door are 3/4 closed.

Option: see parameter 85

NOTE

Elevator controller interface connections to the Car Door Controller ONLY. No connection to landing door controller.



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

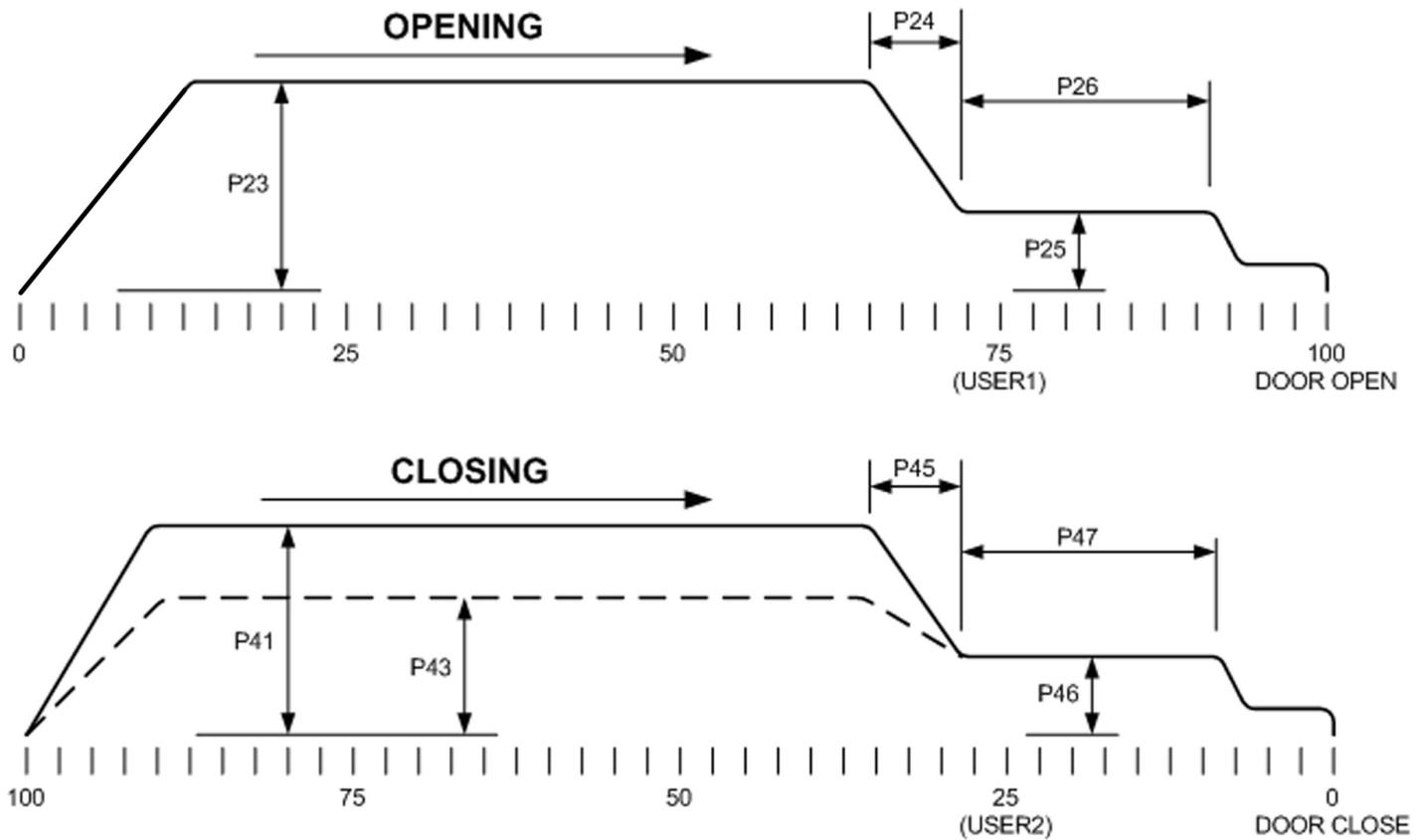
25

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Door Motion Profiles and 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 <u>Channel</u> for each line of doors	11-22	15	15
4	Floor: set a unique <u>Floor address</u> for each Landing Door (note: 00 is not a valid address)	00-30	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	Car Door Duty: increase the car door duty Sd = Standard Duty, Hd = Heavy Duty	Sd-Hd	N/A	Sd
23	Open High Speed: set the opening high speed	20-99	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
41	Close High Speed: set the closing high speed	20-99	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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

26

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Parameter	Description	Range	Landing Pre Set	Car Pre Set
50	Control Interface: set discrete or CAN bus interface 00 = discrete, 01 = CAN	00-01	N/A	00
52	Car Door Designation: 00 = Front, 01 = Rear (only displayed if Parameter 50 = 01)	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=1) 08 = OVERLOAD 09 = OVERDUTY 10 = OVERLOAD / OVERDUTY	00-06	03	00
70	Retiring Cam Ramp Up Time (0.1 second increments)	00-20	N/A	00
71	Retiring Cam Ramp Down Time (0.1 second increments)	00-20	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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

27

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Parameter	Description	Range	Landing Pre Set	Car Pre Set
85	USER 2 options 00 = USER 2 POSITION 01 = USER 1 POSITION 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 Startup Torque	50-99	N/A	50
P87	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

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.



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

28

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Troubleshooting - 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 Landing Door motor wiring
		See sections "car door encoder" & "retiring cam motor"
	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 sections "car door encoder" & "retiring cam motor" 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 sections "car door encoder" & "retiring cam motor"
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 Landing Door encoder wiring See 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)



Troubleshooting - 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
	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 sections "car door encoder" & "retiring cam motor" Acknowledge "OVERLOAD" by setting parameter P01 to 01



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

30

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Troubleshooting - ELEVATOR INTERFACE OPERATION

Problem	Possible Cause	Action
Elevator controller is sending outputs to Peelle controller but no Landing/Car Door operation in open or close direction	<p>Are LCD input icons on Car Door controller? If not check the following:</p> <p>If Peelle power is used to power Peelle inputs, missing jumper from Input Com terminal to V- terminal on Car Door controller</p> <p>If external power is used to power Peelle inputs, missing external power reference wire on Input Com terminal on Car Door controller</p>	<p>Add jumper from Input Com to V-.</p> <p>Ensure external power reference is wired to Input Com.</p> <p>Note: ensure no connections to Peelle V+/V-</p> <p>Ensure parameter P50 is set to 00.</p>
	Landing Door stop input on	<p>Ensure input 5 is off on Landing Door controller. See page 10</p> <p>See Automatic Mode chart</p>
	Landing/Car door stopped before final open/close	<p>Door may be mechanically obstructed. Fix obstruction.</p> <p>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:</p> <p>Open direction - P27</p> <p>Close direction - P48</p>
Elevator controller is sending outputs to Peelle controller but no Landing/Car Door operation in close direction	Light curtain obstructed	Check light curtain alignment



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

Troubleshooting - 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

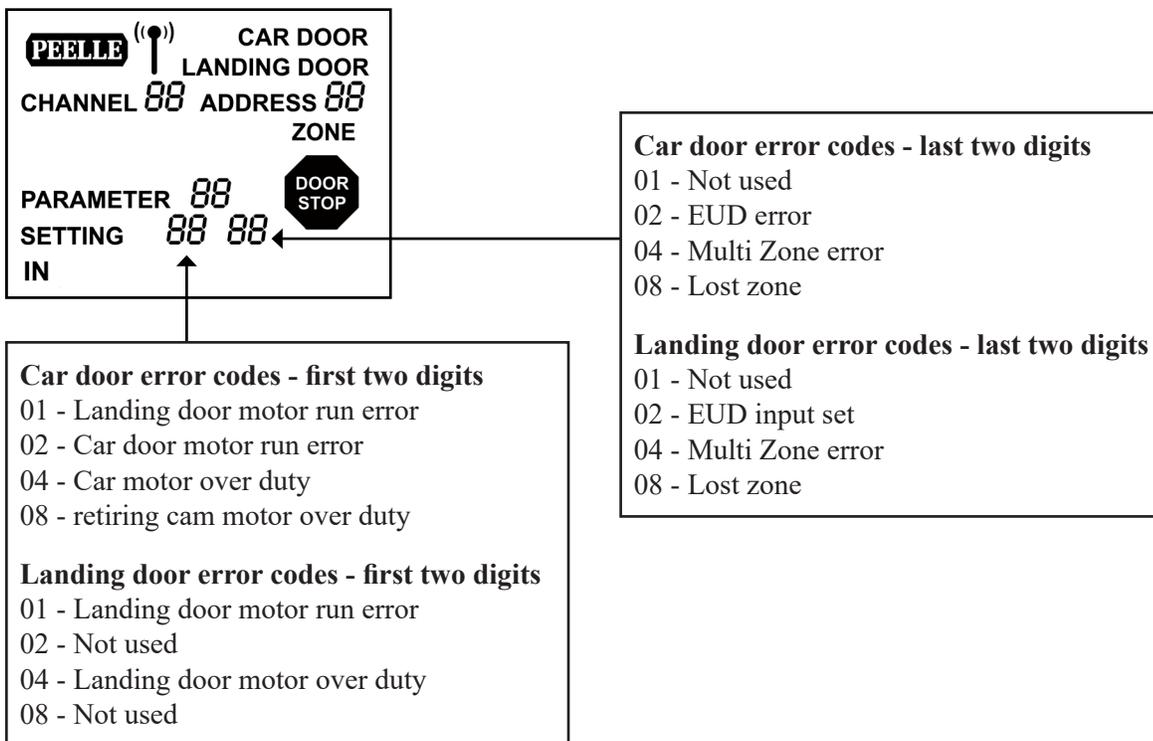
Example: Car Door Error 06 10

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)



To clear error codes cycle the AUTO-IND slider switch



THE PELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

TECHNICAL SUPPORT 1-800-787-5020 ext 275

32

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020

Troubleshooting - 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

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

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

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)

Motor Overload / Over Duty

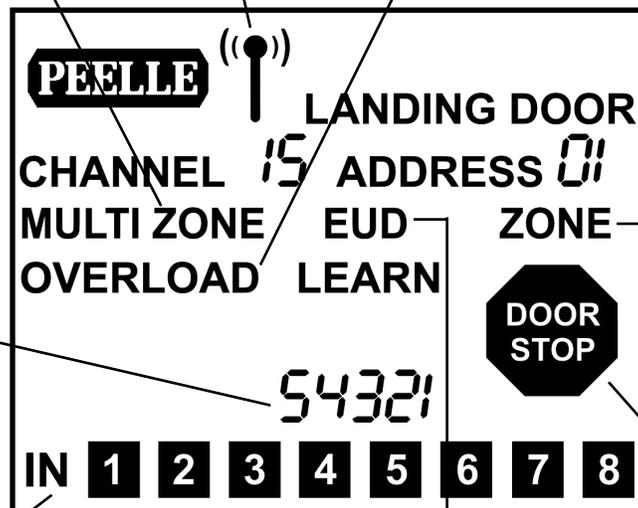
- OVERLOAD is ON solid when over current exists at motor output
 - Check for shorts on motor line
 - Check for shorts to ground
- Reset of overload is required; set parameter 01 to 01 and press ENTER to clear (must go to IND mode)
- OVERLOAD is flashing when motor run time exceeds duty
 - Let motor reset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

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

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



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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

Troubleshooting - 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

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

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

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

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

Landing Zone

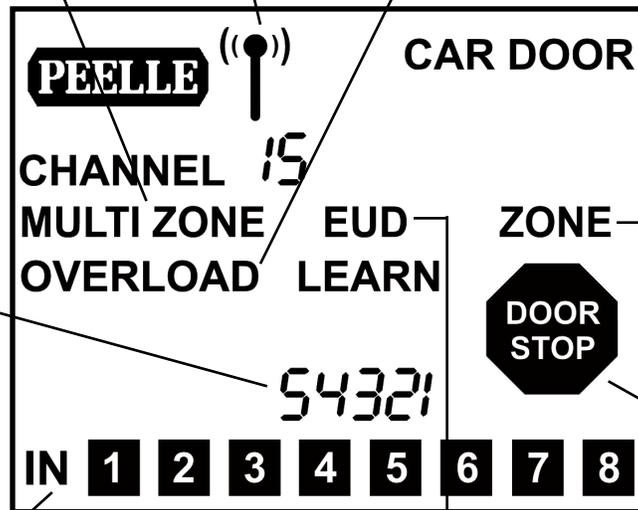
- Zone is ON solid when elevator is at a floor with retiring cam extended and door unlocked
- Zone is OFF when all doors are locked and / or car is moving between floors
- Doors will not run if ZONE is not made
- Check ZNS and zone switch

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

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



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

34

Guide No. 239

**SERIAL CONTROLLER
 INSTALLATION &
 INTERFACE GUIDE**

Date: Aug 2020

Technical Specifications

Technical Data

Input Power	5.5A @ 240V, 1.3 kW
Supply Voltage	208-240V, 1 Ø AC, 50/60Hz
Output Power	0-230V, 3 Ø AC, 4.2A, 0-60Hz
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

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

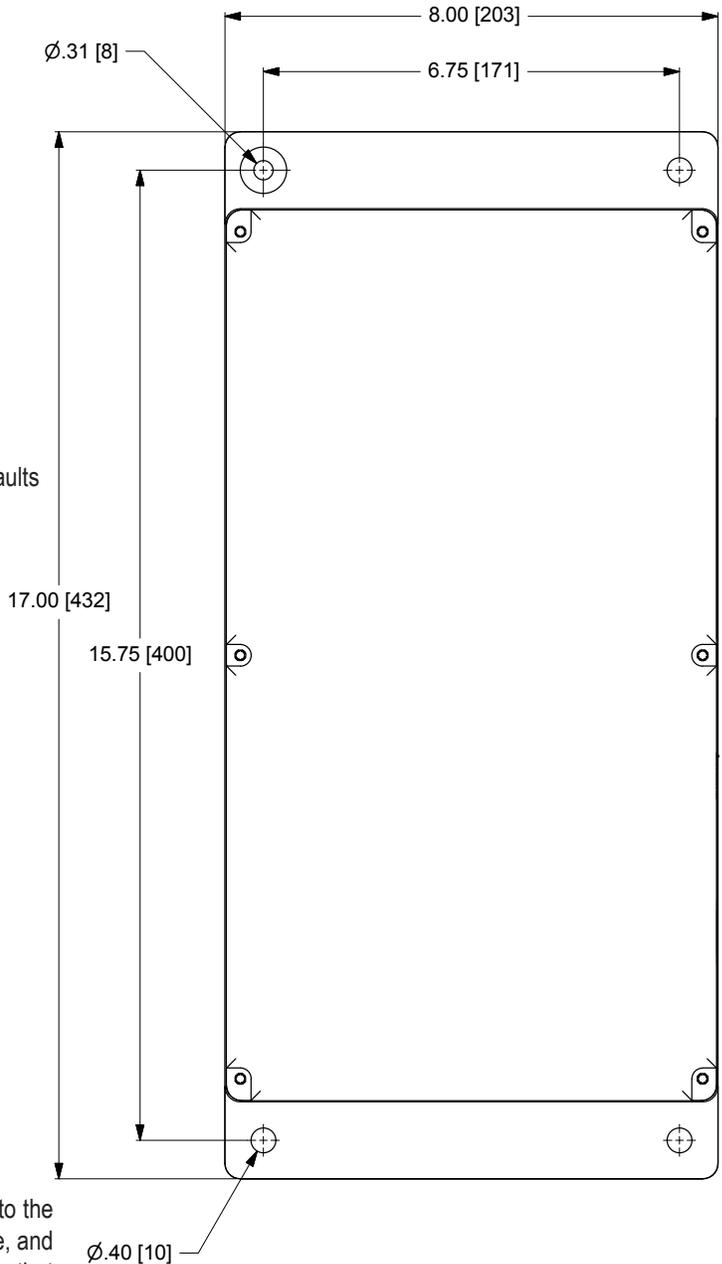
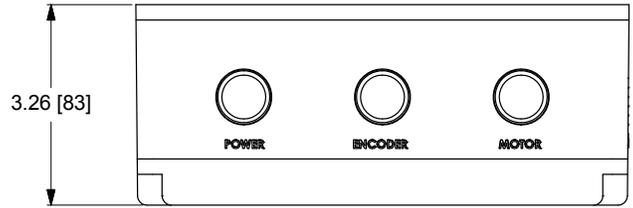
Certification

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

Declaration

This device complies with part 15 of the 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.

Modifications not expressly approved by The Peelle Company Ltd. could void the user's authority to operate the equipment under FCC rules.



THE PEELLE COMPANY
 FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
 TECHNICAL SUPPORT 1-800-787-5020 ext 275

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 95/16/EC and Article 3 of the R&TTE Directive 1999/5/EC, 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: Safety rules for the construction and installation of lifts

EN 12015: Electromagnetic compatibility – Emissions

EN 12016: Electromagnetic compatibility – Immunity

-Telecommunication EN 50371, EN 301 489-1, EN 301 489-17, EN 300 440 and EN 61000-6-1

Date of issue: AUG 2014

Place of issue: Brampton, Ontario, CA

Steven Reynolds, P.Eng.

Director of Engineering



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES

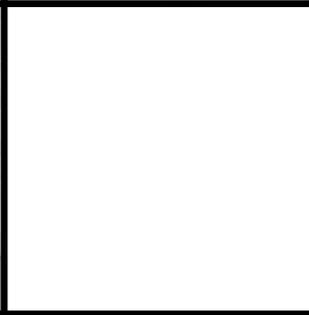
TECHNICAL SUPPORT 1-800-787-5020 ext 275

36

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020



THE PEELLE COMPANY

FREIGHT DOORS | CAR GATES | CAR ENCLOSURES
TECHNICAL SUPPORT 1-800-787-5020 ext 275

Guide No. 239

**SERIAL CONTROLLER
INSTALLATION &
INTERFACE GUIDE**

Date: Aug 2020