CHANGE PARAMETER 53 TO 01
FOR SERIAL / WIRED COMMUNICATION
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.
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Landing Door Controller Mounting

Mount the Landing door Controller to the hoistway wall.
Use 1/4” inch hardware.
Landing Door Wiring Layout - Standard Operators

- Power
- Serial Com
- Operator
- Encoder
- Interlock
- Landing Door
- Junction Box or Trough
- EUD
- Hall Pushbuttons
- Door lock contact (DI) and Door Close Contact (DC) connect to elevator controller
Landing Door Wiring Layout - Extra High Torque Operators

Operator

Encoder

Interlock

Operator

Slave Controller

Power

Serial Com

HOISTWAY TROUGH

EUD

Hall Pushbuttons

Landing Door Junction Box or Trough

Door lock contact (DI) and Door Close Contact (DC) connect to elevator controller

Guide No. 239
SERIAL CONTROLLER INSTALLATION & INTERFACE GUIDE
Date: Aug 2019
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.

WARNING HIGH VOLTAGES
Read Safety Warning before attempting to use this controller

The enclosure supplied is non-metallic and does not provide grounding between conduit connections. Use grounding bushings or jumper wires.
Landing Door Encoder

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

Attention!
Sheilded or separate conduit
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.
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.

The ZONE indicator will go ON solid when the ZNS contact is made for the door connected to that controller when elevator is at the landing with retiring cam extended.

ZONE turns OFF when the retiring cam lifts. When the retiring cam lifts the ZNS contact is open and the ZONE indicator turns off.

The input indicator will go ON solid when the ZNS contact is made for the door connected to that controller.

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

See job specific wiring schematic.
Mount the Car Door Controller to the car door rail spreader. Mount to same side as the Encoder. Use 1/4” Hardware.
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 enclosure supplied is non-metallic and does not provide grounding between conduit connections. Use grounding bushings or jumper wires.
Car Door Encoder

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

On large car doors where provided wire opposite car door operator in parallel.
Car Door 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

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

Where provided on wide landing doors, wire opposite side retiring cam motor in parallel.
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.

\[\text{WHEN UNTWISTING TWISTED PAIR, KEEP LEADS AS SHORT AS POSSIBLE.}\]
Car Door Reversing Edge (optional)

Wire reversing edge as shown where provided.
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.
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”.

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.

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

9. Set AUTO<>IND switch to AUTO.

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.

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.

If retiring cam top assembly does not completely lift retiring cam bottom assembly, set parameter 70 to 10.
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 Slave controller to SL, no further commissioning of the slave controller is required.
   Commission the associated master 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.
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

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<th>CAR CONTROL INPUT FROM ELEVATOR</th>
<th>INPUTS</th>
<th>OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO [1]</td>
<td>OPEN COMMAND</td>
<td>OPENING</td>
</tr>
<tr>
<td>DC [2]</td>
<td>CLOSE COMMAND</td>
<td>CLOSING</td>
</tr>
<tr>
<td>SE [3]</td>
<td>NUDGING ONLY</td>
<td></td>
</tr>
<tr>
<td>DCM [4]</td>
<td>FAST OPEN</td>
<td></td>
</tr>
<tr>
<td>RETCAM BUTTON [5]</td>
<td>FAST CLOSE</td>
<td></td>
</tr>
<tr>
<td>BUZZ [6]</td>
<td>CAR STOPPED</td>
<td></td>
</tr>
</tbody>
</table>

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.
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 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
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.
# Door Motion Profiles and Parameters

**OPENING**

- **P23**: Distance from start to landing
- **P24**: Distance from landing to pre-set
- **P26**: Distance from pre-set to car

**CLOSING**

- **P41**: Distance from car to pre-set
- **P42**: Distance from pre-set to landing
- **P45**: Distance from landing to end

---

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Range</th>
<th>Landing Pre Set</th>
<th>Car Pre Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reset Overload (00 = Do not reset, 01 = Reset)</td>
<td>00-01</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>2</td>
<td>Controller Type: Car Door, Landing Door, Slave</td>
<td>Cd,Ld,SL</td>
<td>Ld</td>
<td>Ld</td>
</tr>
<tr>
<td>3</td>
<td>Channel: set a unique Channel for each line of doors</td>
<td>11-22</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Floor: set a unique Floor address for each Landing Door (note: 00 is not a valid address)</td>
<td>00-30</td>
<td>00</td>
<td>N/A</td>
</tr>
<tr>
<td>10</td>
<td>Learn Command: used to learn the opening</td>
<td>Lr or --</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>11</td>
<td>Learn Speed: set learn and power-up speed</td>
<td>40-70</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>12</td>
<td>Car Door Duty: increase the car door duty</td>
<td>Sd-Hd</td>
<td>N/A</td>
<td>Sd</td>
</tr>
<tr>
<td>23</td>
<td>Open High Speed: set the opening high speed</td>
<td>20-99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>24</td>
<td>Open Deceleration Zone: set distance of deceleration ramp</td>
<td>00-30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>Open Low Speed: set low speed open</td>
<td>20-99</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>26</td>
<td>Open Low Speed Zone</td>
<td>00-30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>27</td>
<td>Open Hold Torque: set the hold open torque</td>
<td>00-50</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>41</td>
<td>Close High Speed: set the closing high speed</td>
<td>20-99</td>
<td>99</td>
<td>85</td>
</tr>
<tr>
<td>42</td>
<td>Close High Speed Torque Limit</td>
<td>30-99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>43</td>
<td>Close Nudging Speed</td>
<td>30-70</td>
<td>N/A</td>
<td>50</td>
</tr>
<tr>
<td>44</td>
<td>Close Nudging Speed Torque Limit</td>
<td>30-99</td>
<td>N/A</td>
<td>99</td>
</tr>
<tr>
<td>45</td>
<td>Close Deceleration Zone: set distance of deceleration ramp</td>
<td>00-30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>46</td>
<td>Close Low Speed: set low speed close</td>
<td>20-99</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>47</td>
<td>Close Low Speed Zone: set distance of low speed zone</td>
<td>00-20</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>48</td>
<td>Close Hold Torque: set the hold close torque</td>
<td>00-50</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Range</td>
<td>Landing Pre Set</td>
<td>Car Pre Set</td>
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<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
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<td>-----------------</td>
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</tr>
<tr>
<td>50</td>
<td>Control Interface: set discrete or CAN bus interface</td>
<td>00-01</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>00 = discrete, 01 = CAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Car Door Designation: 00 = Front, 01 = Rear</td>
<td>00-01</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>(only displayed if Parameter 50 = 01)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>CmcMedia: 00 = RF, 01 = Wired RS_485</td>
<td>00-01</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>54</td>
<td>USING AS REPLACEMENT CONTROLLER</td>
<td>00-01</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>If Parameter 80 is 18 or lower change Parameter 54 to 01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Lost Communication Reaction Time</td>
<td>04-18</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>04 = 0.4 sec</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>05 = 0.5 sec</td>
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<tr>
<td></td>
<td>18 = 1.8 sec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Deceleration rate</td>
<td>01-10</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>61</td>
<td>Acceleration rate</td>
<td>01-10</td>
<td>03</td>
<td>03</td>
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<tr>
<td>62</td>
<td>USER 2 Close Limit: set position of the user door close limit</td>
<td>70-99</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>63</td>
<td>USER 1 Open Limit: set position of the user door open limit</td>
<td>70-99</td>
<td>75</td>
<td>75</td>
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<tr>
<td>64</td>
<td>User Limits Setting:</td>
<td>00-01</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>00 = landing door USER limit + car door USER limit sets USER relay output on</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>car door controller</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>01 = car door USER limit sets USER relay output on car door controller</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>USER 1 options</td>
<td>00-06</td>
<td>03</td>
<td>00</td>
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<td>00 = USER1 POSITION</td>
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<td></td>
<td>01 = USER2 POSITION</td>
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<tr>
<td></td>
<td>02 = ZONE</td>
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<tr>
<td></td>
<td>03 = BUZZ / STROBE</td>
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<td></td>
<td>04 = DOOR OPEN POSITION</td>
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<td></td>
<td>05 = DOOR CLOSED POSITION</td>
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<tr>
<td></td>
<td>06 = AUX2 INPUT</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>07 = LCT (BRIDGE MODE ONLY P50=1)</td>
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<tr>
<td></td>
<td>08 = OVERLOAD</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>09 = OVERDUTY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 = OVERLOAD / OVERDUTY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>Retiring Cam Ramp Up Time (0.1 second increments)</td>
<td>00-20</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td>71</td>
<td>Retiring Cam Ramp Down Time (0.1 second increments)</td>
<td>00-20</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td>72</td>
<td>Retiring Cam Duty Control</td>
<td>00-02</td>
<td>N/A</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>00 = Disabled (contact Peelle if used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = 50% Duty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 = 75% Duty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Software Version (read only)</td>
<td>2 digits</td>
<td>Software Version</td>
<td>Software Version</td>
</tr>
<tr>
<td>81</td>
<td>Radio Strength</td>
<td>01-31</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>82</td>
<td>Motor Duty Control</td>
<td>00-02</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>00 = Disabled (contact Peelle if used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = Standby Duty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 = Increased Duty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Motor Overload Control</td>
<td>00-02</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>00 = Disabled (contact Peelle if used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = Default Threshold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 = Increased Threshold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>Drive Over Temperature Control</td>
<td>00-02</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>00 = Disabled (contact Peelle if used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = Default Threshold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 = Increased Threshold</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Range</th>
<th>Landing Pre Set</th>
<th>Car Pre Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>USER 2 options</td>
<td>00-06</td>
<td>03</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>00 = USER 2 POSITION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = USER 1 POSITION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 = ZONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>03 = BUZZ / STROBE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>04 = DOOR OPEN POSITION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>05 = DOOR CLOSED POSITION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>06 = AUX2 INPUT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 = LCT (BRIDGE MODE ONLY P50=1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>08 = OVERLOAD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 = OVERDUTY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 = OVERLOAD / OVERDUTY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>Retiring Cam Startup Torque</td>
<td>50-99</td>
<td>N/A</td>
<td>50</td>
</tr>
<tr>
<td>P87</td>
<td>SIMULTANEOUS OPERATION (INPUT 4 HIGH)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00 = CLOSE DIRECTION ONLY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = OPEN AND CLOSE DIRECTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>Car Door Aux2 Input Option</td>
<td>00-01</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>00 = Disabled</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = Independent Car Door Operation with input ON</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>Momentary Door Open / Door Close Option</td>
<td>00-01</td>
<td>N/A</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>00 = Constant DO and DC operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = Momentary DO and DC operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>Power Up landing door speed (unzoned only)</td>
<td>00-01</td>
<td>01</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>00 = learn speed until final open/close limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 = normal profile speed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Buzzer Output: 00 = Pulsing, 01 = Continuous</td>
<td>00-01</td>
<td>01</td>
<td>00</td>
</tr>
<tr>
<td>95</td>
<td>Close Input Buzzer Control: 00 = Disabled, 01 = Enabled</td>
<td>00-01</td>
<td>01</td>
<td>01</td>
</tr>
</tbody>
</table>

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.
## Troubleshooting - INDEPENDENT MODE

**PEELLE ONLY OPERATION - USED FOR COMMISSIONING AND INDIVIDUAL LANDING/CAR DOOR OPERATION**

(AUTO-IND slider switch set to IND)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No operation from OPEN/CLOSE pushbutton</td>
<td>AUTO-IND slider not set to IND</td>
<td>Set AUTO-IND slider to IND</td>
</tr>
<tr>
<td></td>
<td>Wiring problem to Landing Door motor output or Car Door selector relay output</td>
<td>See Landing Door motor wiring</td>
</tr>
<tr>
<td></td>
<td>Flashing LCD “OVERLOAD” icon</td>
<td>Duty timer for motor has been exceeded. Cool down period required for motor regeneration. If condition persists, increase duty timer. See parameters P72 &amp; P82. Note: increasing duty timer may shorten motor life</td>
</tr>
<tr>
<td></td>
<td>Constant LCD “OVERLOAD” icon</td>
<td>Check Landing Door motor output or Car Door selector relay output for short circuit to ground</td>
</tr>
<tr>
<td></td>
<td>No operation from RETCAM pushbutton</td>
<td>Controller type not set to Car Door (CD) Ensure parameter P02 is set to “CD”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wiring problem to Car Door selector relay output</td>
</tr>
<tr>
<td></td>
<td>Slow speed Landing/Car Door operation only</td>
<td>LCD “LEARN” flashing</td>
</tr>
<tr>
<td></td>
<td>Landing/Car door runs for 12” then stops</td>
<td>Encoder set screw loose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encoder wiring problem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanical problem with bottom assembly (face)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanical problem with top assembly (motor)</td>
</tr>
<tr>
<td></td>
<td>Retiring Cam not fully pulling back</td>
<td>Mechanical problem with full assembly</td>
</tr>
</tbody>
</table>

---

**Guide No. 239**

SERIAL CONTROLLER INSTALLATION & INTERFACE GUIDE

Date: Aug 2019
# Troubleshooting - AUTOMATIC MODE

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

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>AUTO-IND slider not set to AUTO</td>
<td>Set AUTO-IND slider to AUTO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All controllers must be set to AUTO.</td>
</tr>
<tr>
<td></td>
<td>Elevator not in Landing Door zone</td>
<td>Ensure retiring cam bottom assembly is on Landing Door roller arm</td>
</tr>
<tr>
<td></td>
<td>LCD “ZONE” icon not on at either Landing Door controller or corresponding Car Door controller</td>
<td>Ensure Input 3 is on at Landing Door controller.</td>
</tr>
<tr>
<td></td>
<td>LCD “ANTENNA” icon not on (or flashing) at zoned Landing Door controller or corresponding Car Door controller</td>
<td>Ensure Landing Door channel matches Car Door channel. Adjust parameter P03 if necessary.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure Landing Door address is unique and not set to 00. Adjust parameter P04 if necessary.</td>
</tr>
<tr>
<td></td>
<td>LCD “EUD” icon on (or flashing) at Landing Door controller and flashing at corresponding Car Door controller</td>
<td>Constant LCD “EUD” icon = EUD is in STOP position at current landing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flashing LCD “EUD” icon = EUD is in STOP position at another landing on the same channel</td>
</tr>
<tr>
<td></td>
<td>LCD “MULTIZONE” icon on at Landing Door controller and corresponding Car Door controller</td>
<td>Check all interlock zone micro switches. Only one zone micro switch can be on at a time on one channel.</td>
</tr>
<tr>
<td></td>
<td>Flashing LCD “OVERLOAD” icon</td>
<td>Duty timer for motor has been exceeded. Cool down period required for motor regeneration. If condition persists, increase duty timer. See parameters P72 &amp; P82. Note: increasing duty timer may shorten motor life</td>
</tr>
<tr>
<td></td>
<td>Constant LCD “OVERLOAD” icon</td>
<td>Check Landing Door motor output or Car Door selector relay output for short circuit to ground. See page 6 for Landing Door motor wiring</td>
</tr>
</tbody>
</table>

See sections "car door encoder" & "retiring cam motor"  
Acknowledge “OVERLOAD” by setting parameter P01 to 01
## Troubleshooting - ELEVATOR INTERFACE OPERATION

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are LCD input icons on Car Door controller? If not check the following:</td>
<td>If Peelle power is used to power Peelle inputs, missing jumper from Input Com terminal to V– terminal on Car Door controller</td>
<td>Add jumper from Input Com to V–. Ensure external power reference is wired to Input Com. Note: ensure no connections to Peelle V+/V–. Ensure parameter P50 is set to 00.</td>
</tr>
<tr>
<td>elevator controller is sending outputs to Peelle controller but no Landing/Car Door operation in open or close direction</td>
<td>Ensure parameter P50 is set to 00. Ensure input 5 is off on Landing Door controller. See page 10</td>
<td>See Automatic Mode chart.</td>
</tr>
<tr>
<td>Landing Door stop input on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing/Car door stopped before final open/close</td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>Elevator controller is sending outputs to Peelle controller but no Landing/Car Door operation in close direction</td>
<td>Light curtain obstructed</td>
<td>Check light curtain alignment</td>
</tr>
</tbody>
</table>
Troubleshooting - Error Codes

If the setting is flashing from encoder count (5 digits) to an 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 - 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

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

**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

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

To clear error codes cycle the AUTO-IND slider switch.

---

**Troubleshooting - Error Codes**

If the setting is flashing from encoder count (5 digits) to an 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 - 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

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

**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

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

To clear error codes cycle the AUTO-IND slider switch.
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

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

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)

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

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
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

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

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
Technical Specifications

**Technical Data**

**Specification**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Power</td>
<td>5.5A @ 240V, 1.3 kW</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>208-240V, 1 Ø AC, 50/60Hz</td>
</tr>
<tr>
<td>Output Power</td>
<td>0-230V, 3 Ø AC, 4.2A, 0-60Hz</td>
</tr>
<tr>
<td>Output Motor</td>
<td>0.75 kW (1 HP)</td>
</tr>
<tr>
<td>Digital Inputs</td>
<td>8 provided, 12-30V, AC or DC</td>
</tr>
<tr>
<td>Encoder Input</td>
<td>Incremental, NPN, 12VDC, 120 PPR</td>
</tr>
<tr>
<td>Relay Outputs</td>
<td>8 provided, Form C, 10A, 125VAC</td>
</tr>
<tr>
<td>Input Indicators</td>
<td>LCD screen</td>
</tr>
<tr>
<td>Output Indicators</td>
<td>LED</td>
</tr>
<tr>
<td>Enclosure Protection</td>
<td>NEMA 1,4,4X (indoor use only) - IP 65</td>
</tr>
<tr>
<td>Temperature</td>
<td>40 Deg C Max</td>
</tr>
<tr>
<td>Dimensions</td>
<td>200mm x 430mm x 85mm (W x H x D)</td>
</tr>
<tr>
<td>Mounting Method</td>
<td>4 screw holes on outside perimeter</td>
</tr>
<tr>
<td>Equipment Class</td>
<td>Digital Transmission System</td>
</tr>
<tr>
<td>Wireless Network</td>
<td>802.15.4 LR-WPAN standard</td>
</tr>
<tr>
<td>Wireless Frequency</td>
<td>2.4GHz</td>
</tr>
<tr>
<td>Wireless Output</td>
<td>0.094 Watts</td>
</tr>
<tr>
<td>Wireless Range</td>
<td>100m floor-to-floor up to 99 floors</td>
</tr>
<tr>
<td>User Interface</td>
<td>On board pushbuttons with visual display</td>
</tr>
<tr>
<td>Visual Display</td>
<td>50mm x 40mm back-lit LCD</td>
</tr>
<tr>
<td>Parameters</td>
<td>User adjustable with factory presets and defaults</td>
</tr>
<tr>
<td>Learn Adjustment</td>
<td>Automatic by user parameter</td>
</tr>
<tr>
<td>Landing Door Address</td>
<td>User selectable parameter</td>
</tr>
<tr>
<td>Car or Landing Door Type</td>
<td>User selectable parameter</td>
</tr>
<tr>
<td>Fail Safe Condition</td>
<td>Door Stop if communication lost</td>
</tr>
</tbody>
</table>

**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.
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

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