

Revision 0.6A



ALPHA ELEVATOR CONTROLLER, INC

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Anti-Creep Test

Code Section: 3.26.3 Anti-Creep and Leveling Operation

Objective: This test is to simulate the Anti-Creep feature is operational with and without the in-car stop switch being active. Elevator will relevel to floor level when out of dead zone, but still located inside the unlocking zone

Note: Ensure the elevator releveling operation is turned ON. To verify, go to MAIN MENU → SETUP → FLOOR LEVELS → RELEVELING → and set to TRUE

This test can be done with doors open or closed

Procedure:

Test #1: Anti-Creep without In-Car Stop Switch:

1. Put the elevator on normal operation. The elevator should be in at floor level at a landing.
2. Slowly bleed the valve so the elevator can creep out of the dead zone, but stay within the unlocking zone. Note: The elevator must be creeping at a speed of 1-5FPM.
3. Verify that the elevator displays a “A211: Releveling” alarm and relevel the elevator back up to floor level.

Test #2: Anti-Creep with In-Car Stop Switch:

1. Put the elevator on normal operation. The elevator should be in a door zone at a landing.
2. Turn the In-Car Stop Switch to STOP. Verify the controller throws an alarm “A205: IC-Stop Switch” alarm.
3. Slowly bleed the valve so the elevator can creep out of the dead zone, but stay within the unlocking zone. Note: The elevator must be creeping at a speed of 1-5FPM.
4. Verify that the elevator displays a “A211: Releveling” alarm and relevel the elevator back up to floor level.
5. Turn the In-Car Stop Switch to RUN and return elevator to normal operation.

Stop Ring Test

Code Section: 3.18.4 Plunger Stops

Objective: This test is to simulate that the elevator will run leveling speed up past the normal limit and onto the stop ring.

Note: Ensure the elevator runs at leveling speed on inspection. To verify, go to MAIN MENU → SETUP → INSPECTION/ACCESS → ALLOW HIGH SPEED → FALSE.

1. Place the elevator at the top landing.
2. Put the elevator on machine room inspection.
 - a. If there is a mechanical top normal limit switch, jump the terminals UNL-O and UNL-R together, on the safety board.
 - b. If there is a electronic virtual top normal limit switch, go to MAIN MENU → SETUP → INSPECTION/ACCESS → BYPASS DIRECTIONALS → set it to TRUE.
3. Run the elevator on machine room inspection UP into the stop ring.
4. Run the elevator back down to the top landing.
5. Revert any jumper or parameter that changed in this test back to the original setting.
6. Put elevator back on normal operation.

Battery Lowering Test

Code Section: 3.26.10 Auxiliary Power Lowering Operation

Objective: This test is to simulate the event of building power loss, that the controller will power on with the battery lowering device and automatically lower to the lowest floor and power open doors

Note: Ensure the battery disconnect switch is on the ON position. To verify, make sure the red switch is position towards the “ON” label on the battery disconnect switch

Procedure:

1. Put the elevator on normal operation. Press a car call to move the elevator to any floor besides the recall floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the desired floor and press the enter button.
2. Turn off the L1 and L2 two pole breaker.
3. Battery lowering device will activate and power on the controller. Verify that the controller throws a “A216: Battery Lowering” alarm.
4. Elevator will begin lowering to the lowest floor and power open the doors than close the doors. Only the door open button inside the car will remain operational.
5. Put the car on machine room inspection.
6. Turn the elevator disconnect switch back on and return elevator to normal operation.

Low Oil Test

Code Section: 3.26.9 Low Oil Protection

Objective: This test is to simulate the event of low oil; the elevator will automatically lower to the lowest landing and power open doors

Note: Ensure the low oil input is a normally closed contact, and verify that the low oil input LED is high on the UI Board

Procedure:

Method 1: If job setup has a low oil sensor.

1. Put the elevator on normal operation.
2. Press a car call to any floor besides the floor the elevator is located on. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the desired floor and press the enter button.
3. Remove the wire from the low oil input on the MR UI board as the elevator is traveling.
4. The elevator will stop and the controller will show a “A214: Low Oil” alarm.
5. Elevator will begin lowering to the lowest landing and power open the doors than close the doors. Only the door open button inside the car will remain operational.
6. Put the car on machine room inspection.
7. Put the wire back into the low oil input on the MR UI Board.
8. Return elevator to normal operation.

Method 2: If job setup does not have a low oil sensor.

1. Put the elevator on normal operation.
2. Press a car call to the bottom floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the bottom floor and press the enter button.
3. Go to MAIN MENU → SETUP → TIMERS → MOTOR LIMIT TIMER and record the value.
4. Change the value to 005 s and click save.
5. Press a car call to the top floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the top floor and press the enter button.
6. The elevator will stop after 5 seconds and the controller will show a “A212: MLT” alarm.
7. Elevator will begin lowering to the lowest landing and power open the doors than close the doors. Only the door open button inside the car will remain operational.
8. Put the car on machine room inspection. Revert the parameter changed in step 4.
9. Return elevator to normal operation.

Pressure Switch Test

Code Section: 3.26.8 Pressure-Sensing Means

Objective: This test is to simulate the event of low pressure; the elevator will automatically go out of service from its current location. If the elevator is within the unlocking zone, the door open button will remain operational.

Note: Ensure the low pressure input is a normally closed contact, and verify that the low pressure input LED is high on the UI Board

Procedure:

1. Put the elevator on normal operation.
2. Press a car call to any floor besides the floor the elevator is located on. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the desired floor and press the enter button.
3. Remove the wire from the low pressure input on the MR UI board as the elevator is traveling.
4. The elevator will stop and the controller will show “A217: Low Pressure” alarm.
5. The elevator will not be operational if the elevator is not in an unlocking zone. If the elevator is within the unlocking zone, the door open button inside the car will remain operational.
6. Put the car on machine room inspection.
7. Put the wire back into the low pressure input on the MR UI Board.
8. Return elevator to normal operation.

Normal Terminal Stopping Device Test

Code Section: 2.25.2 / 3.25.1.1 Normal Terminal Stopping Devices

Objective: This test is to simulate that the elevator while traveling to any of the terminal landing will slowdown when crossing the Normal Terminal Stopping Devices as the normal stopping means fails to cause the car to slow down at the terminal landings

This test will also simulate that the elevator will stop at the terminals normal limits

Note: N/A

Procedure:

Test #1: Up Normal Terminal Slowdown:

1. Put the elevator on normal operation. Press a car call to move the elevator to the bottom floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the bottom floor and press the enter button.
2. Go to MAIN MENU → SETUP → SLOWDOWNS AND STOPS → SLOWDOWN GOING UP and record the value.
3. Change the value to 00001 and click SAVE.
4. Press a car call to move the elevator to the top terminal floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the top terminal floor and press the enter button.
5. Verify that the UNTS LED on the safety board goes out as the elevator crosses the UNTS mechanical switch at contract speed and the elevator slows down into the terminal landing.
6. Set the SLOWDOWN GOING UP value back to the recorded value.

Test #2: Down Normal Terminal Slowdown:

1. Put the elevator on normal operation. Press a car call to move the elevator to the top floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the top floor and press the enter button.
2. Go to MAIN MENU → SETUP → SLOWDOWNS AND STOPS → SLOWDOWN GOING DOWN and record the value.
3. Change the value to 00001 and click SAVE.
4. Press a car call to move the elevator to the bottom terminal floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the bottom terminal floor and press the enter button.
5. Verify that the DNTS LED on the safety board goes out as the elevator crosses the DNTS mechanical switch at contract speed and the elevator slows down into the terminal landing.

6. Set the SLOWDOWN GOING DOWN value back to the recorded value.

Test #3: Normal Limits:

1. Put the elevator on normal operation. Press a car call to move the elevator to the bottom floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the bottom floor and press the enter button.
2. Put the elevator on any modes of inspection.
3. Run the elevator down on inspection and verify that the elevator stops or does not run down past the bottom normal limit. The controller will display a “A201: At Directional Limit.”
4. Put the elevator on normal operation. Press a car call to move the elevator to the top floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the top floor and press the enter button.
5. Put the elevator on any modes of inspection.
6. Run the elevator up on inspection and verify that the elevator stops or does not run up past the top normal limit. The controller will display a A201: “At Directional Limit.”

Terminal Speed Reducing Device Test

Code Section: 3.25.2 Terminal Speed-Reducing Devices

Objective: This test is to simulate that the elevator while traveling up at full speed will reduce its speed when crossing the Terminal Speed-Reducing Device as the normal terminal stopping device fails to cause the car to slow down at the top terminal

Note: N/A

Procedure:

1. Put the elevator on normal operation. Press a car call to move the elevator to the bottom floor. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the bottom floor and press the enter button.
2. Wire a jumper on the safety board from terminals UNTS-O to UNTS-R.
3. Go to MAIN MENU → SETUP → SLOWDOWNS AND STOPS → SLOWDOWN GOING UP and record the value.
4. Change the value to 00001 and click SAVE.
5. Place a car call to the top landing. To do this, go to MAIN MENU → TEST & TROUBLESHOOT → ENTER CALLS and scroll to the top floor and press the enter button.
6. The elevator will travel up at contract speed and pass the TSRD switch and verify that the controller faults out with a “F116: TSRD Overspeed” and slide to a stop.
7. Put the elevator on machine room inspection. Press the clear fault button on the safety board.
8. Remove jumper from step 2 than set SLOWDOWN GOING UP back to the record value in step 4.
9. Return the elevator to normal operation.

DLM Car Door Test

Code Section: If applicable per state code.

Objective: This test is to simulate if there is a jumper on a car door that the elevator will not move.

Note: Ensure the GSW Contact Failure is set to monitor with DCL or DPM. To verify, go to MAIN MENU → SETUP → DOOR SETUP → FRONT/REAR → FAILURE DETECTION → GSW CONTACT FAILURE, and set it monitor with DCL or DPM.

Procedure:

1. Put the elevator on normal operation. The elevator should be in at floor level at a landing.
2. Place a jumper on the safety board from GSWF to 120P.
3. Place a car call to a different landing.
4. The doors will open and fault out with a “A233 GSW Contact” alarm.
5. Remove the jumper and elevator should go back to normal.

DLM Hall Door Test

Code Section: If applicable per state code.

Objective: This test is to simulate if there is a jumper on a hall door that the elevator will not move.

Note: Ensure the GSW Contact Failure is set to monitor with DCL or DPM. To verify, go to MAIN MENU → SETUP → DOOR SETUP → FRONT/REAR → FAILURE DETECTION → HALL CONTACT FAILURE, and set it monitor with GSW.

Procedure:

1. Put the elevator on the bottom landing on normal operation. The elevator should be in at floor level at a landing.
2. Place a jumper on the safety board from LOCKB to 120P.

3. Place a car call to a different landing.
4. The doors will open and fault out with a “A234 Lock Contact” alarm.
5. Remove the jumper and elevator should go back to normal.