



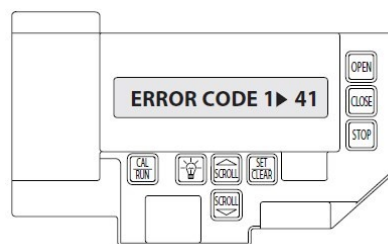
## Commercial Operator Troubleshooting Codes

### Genie® Commercial Operators GCL Medium, Standard, Heavy Duty and GCX Operator

**Run Codes: p. 1-3**

**Error Codes: p. 3-9**

**Fire Door Operator Codes: p. 10**



#### Commercial Operator Run Codes

| Run Code | Display               | Detailed/Expanded Description                                                                              | Corrective Action |
|----------|-----------------------|------------------------------------------------------------------------------------------------------------|-------------------|
| 10       | OPENING ><br>OPEN BTN | The Open Pushbutton input was activated causing the door to move in the opening direction.                 | None              |
| 11       | OPENING ><br>ONE BTN  | The 1- Button input was activated causing the door to move in the open direction.                          | None              |
| 12       | OPENING ><br>RADIO    | The External Radio input was activated causing the door to move in the open direction.                     | None              |
| 13       | OPENING ><br>AUX OPEN | The Auxiliary Open input (on the TCM Module) was activated causing the door to move in the open direction. | None              |
| 14       | OPENING ><br>OPEN KEY | The Open Key (on the circuit board) was activated causing the door to move in the open direction.          | None              |
| 20       | CLOSING ><br>CLOSE PB | The Close Pushbutton input was activated causing the door to move in the close direction.                  | None              |
| 21       | CLOSING ><br>ONE BTN  | The 1- Button input was activated causing the door to move in the close direction.                         | None              |
| 22       | CLOSING ><br>RADIO    | The External Radio input was activated causing the door to move in the close direction.                    | None              |





| Run Code | Display            | Detailed/Expanded Description                                                                                                   | Corrective Action                                                                                                                                                          |
|----------|--------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 24       | CLOSING > CLOSE KP | The Close Key (on the circuit board) was activated causing the door to move in the close direction.                             | None                                                                                                                                                                       |
| 2A       | CLOSING > TCM CLS  | The TCM Module sent a close signal causing the door to move in the close direction.                                             | None                                                                                                                                                                       |
| 2B       | CLOSING > FDM CLS  | The Fire Door Module sent a signal causing the door to move in the close direction.                                             | None                                                                                                                                                                       |
| 30       | HALT > WALL BUTTON | The door stopped because the Stop Pushbutton was activated.                                                                     | None                                                                                                                                                                       |
| 31       | HALT > ONE BUTTON  | The door stopped (and /or reversed) because the 1-Button input was activated.                                                   | None                                                                                                                                                                       |
| 32       | HALT > RADIO       | The door stopped and reversed because the Radio input was activated.                                                            | None                                                                                                                                                                       |
| 33       | HALT > AUX. OPEN   | The door stopped (and /or reversed) because the Auxiliary Open input on the TCM Module was activated.                           | None                                                                                                                                                                       |
| 34       | HALT > KEYPAD KEY  | The door stopped because the Stop Key was activated.                                                                            | None                                                                                                                                                                       |
| 35       | HALT > N-O SAFETY  | The door stopped and reversed because the Normally Open Reverse input was activated.                                            | None                                                                                                                                                                       |
| 36       | HALT > ODC STB     | The door stopped and reversed because the Safety Beam or Monitored Edge with the Monitored Edge Interface Module was activated. | None                                                                                                                                                                       |
| 37       | HALT > N-C SAFETY  | The door stopped and reversed because the Normally Close Reverse input on the TCM Module was activated.                         | None                                                                                                                                                                       |
| 38       | HALT > MON. EDGE   | The door stopped and reversed because the Monitored Edge input on the TCM Module was activated.                                 | None                                                                                                                                                                       |
| 39       | HALT > DOOR FORCE  | The door stopped because the Speed of the Limit Assembly slowed down (Trolley Models only).                                     | Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Check for mechanical issues. Replace the Limit Module. Replace the Main Control Board. |
| 3A       | HALT > LOSS OF C/C | The door stopped (and/or reversed) because the constant contact activation was removed before the door reached a limit.         | None. User input was removed.                                                                                                                                              |





### Commercial Operator Run Codes (continued)

| Run Code | Display           | Detailed/Expanded Description                                                                                            | Corrective Action                                                                                                                                                                                           |
|----------|-------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3B       | HALT > SHUTDOWN   | The door stopped because the Hoist Interlock, External Interlock circuit became active (opened) or the motor overheated. | Check the Hoist Interlock switch and wires. Check External Interlock switch and wires. If no External Interlock is in use check the gray jumper between the two EXT INTLK terminals. Check for a hot motor. |
| 3C       | HALT > DOWN LIMIT | The door stopped because it reached the Down limit position.                                                             | None                                                                                                                                                                                                        |
| 3D       | HALT > UP LIMIT   | The door stopped because it reached the Up limit position.                                                               | None                                                                                                                                                                                                        |
| 3E       | HALT > MID STOP   | The door stopped because it reached the Mid-Stop limit position.                                                         | None                                                                                                                                                                                                        |

### Commercial Operator Error Codes

| Error Code | Display            | Detailed/Expanded Description                                                                                                                    | Corrective Action                                                                                                                                   |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 3F         | HALT > MODULE FAIL | The door stopped because it determined there was a problem with an Expansion Module. (Timer Close or Auxiliary Output Module)                    | Check Expansion Module LED Status. Power the operator off, remove the module and re-apply power, if the operator starts working replace the module. |
| 40         | REV > OPEN BUTTON  | The door stopped traveling down and reversed and is now traveling open because the Open Pushbutton was activated.                                | Check the Open Pushbutton and Open Pushbutton wires for a closed circuit.                                                                           |
| 41         | REV > ONE BUTTON   | The door stopped traveling down and reversed and is now traveling open because the 1-Button input was activated.                                 | Check the 1-Button and 1-Button wires for a closed circuit.                                                                                         |
| 42         | REV > RADIO        | The door stopped traveling down and reversed and is now traveling open because the External Radio input was activated.                           | Check the External Radio for a short circuit.                                                                                                       |
| 43         | REV > AUX OPEN     | The door stopped traveling down and reversed and is now traveling open because the Auxiliary Open input on the Timer Close Module was activated. | Check the Auxiliary Open Input on the Timer Close Module and the Auxiliary Open Input wires for a closed circuit.                                   |





### Commercial Operator Error Codes (continued)

| Error Code | Display           | Detailed/Expanded Description                                                                                                                                                                   | Corrective Action                                                                                                                                                          |
|------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 44         | REV > OPEN KEY    | The door stopped traveling down and reversed and is now traveling open because the Open Key (on the circuit board) was activated.                                                               | Power the unit down and back up. If the error persists then replace the main circuit board.                                                                                |
| 45         | REV > N-O SAFETY  | The door stopped traveling down and reversed and is now traveling open because the Normally Open Reverse input was activated.                                                                   | Check the N-O Reverse input and NO Reverse wires for a closed circuit.                                                                                                     |
| 46         | REV > ODC STB     | The door stopped traveling down and reversed and is now traveling open because the Monitored Safety Beam (STB) or Monitored Edged with the Monitored Edge Interface Module input was activated. | Check the ODC STB input and ODC STB wires for an open or shorted (closed) circuit.                                                                                         |
| 47         | REV > N-C SAFETY  | The door stopped traveling down and reversed and is now traveling open because the Normally Close Safety Input on the Timer Close Module was activated.                                         | Check the Normally Closed Safety Input on the Timer Close Module and the Normally Closed Safety Input wires for a open circuit.                                            |
| 48         | REV > MON. EDGE   | The door stopped traveling down and reversed and is now traveling open because the Monitored Edge Input on the Timer Close Module was activated.                                                | Check the Monitored Edge Input on the Timer Close Module and the Monitored Edge Input wires for an Open or shorted (closed) circuit.                                       |
| 49         | REV > DOOR FORCE  | The door stopped traveling down and reversed because the Speed of the Limit Assembly slowed down (Trolley Models only).                                                                         | Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Check for mechanical issues. Replace the Limit Module. Replace the Main Control Board. |
| 4A         | REV > LOSS OF C/C | The door stopped traveling down and reversed because the constant contact activation was removed before the door reached the down limit.                                                        | User input was removed.                                                                                                                                                    |
| 4B         | REV > MAX RUN TMR | The door stopped traveling down and reversed because the Maximum Run Time between Limits was exceeded.                                                                                          | Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Re-record the Max Run Timer values in both directions.                                 |





| Error Code | Display               | Detailed/Expanded Description                                                                                                                                                        | Corrective Action                                                                                                                                                                                                                                                                     |
|------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4F         | REV > EXP<br>MOD FAIL | The door stopped traveling down because it determined there was a problem with an Expansion Module. (i.e; limit module, TCM or AOM board, receiver board)                            | Review the menu looking for a missing menu item. For example, if the limit module is defective there will not be any limit setting information in the menu.                                                                                                                           |
| 50         | STOP > HOT<br>MOTOR   | The door stopped moving because the motor overheated.                                                                                                                                | Check for a hot motor. Check the motor plug on the main board making sure the plug and wires are seated.                                                                                                                                                                              |
| 51         | STOP > OPEN<br>MRT    | The door stopped traveling open because the Maximum Run Time between Limits was exceeded.                                                                                            | Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Re-record the Max Run Timer values in both directions.                                                                                                                                            |
| 52         | STOP > CLOSE<br>MRT   | The door stopped traveling close because the Maximum Run Time between Limits was exceeded.                                                                                           | Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Re-record the Max Run Timer values in both directions.                                                                                                                                            |
| 57         | STOP > OPEN<br>INTLK  | The door stopped because the Hoist Interlock or the External Interlock circuit became active (open).                                                                                 | Check the Hoist Interlock switch and wires. Check External Interlock switch and wires. If no External Interlock in use check the gray jumper between the two EXT INTLK terminals.                                                                                                     |
| 58         | STOP ><br>WRONG GDO   | The door stopped because the circuit board is set as a J-Shaft (side-mounted unit) but is installed on a Trolley unit.                                                               | Review the "GDO TYPE" in the calibration setting of the unit.                                                                                                                                                                                                                         |
| 59         | STOP > DOOR<br>FORCE  | The door stopped traveling up because the Speed of the Limit Assembly slowed down (Trolley Models only).                                                                             | Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Check the GDO Type in the set-up menu for the proper setting for the model installed (Trolley or J Shaft). Check for mechanical issues. Replace the Limit Module. Replace the Main Control Board. |
| 5A         | STOP ><br>WRONG LIMIT | The door stopped traveling because the unit was looking for the Up Limit and the Down Limit became active or the unit was looking for the Down Limit and the UP limit became active. | Review the calibration setting. Reset motor direction and limits.                                                                                                                                                                                                                     |
| 5B         | STOP ><br>WRONG DIR   | The door stopped traveling because the unit was looking for Limit direction input in one direction but received input in the opposite direction.                                     | Review the calibration setting. Reset motor direction and limits.                                                                                                                                                                                                                     |
| 5C         | STALL > DOWN<br>LIMIT | The door stopped traveling because it expected the Down Limit to clear (door moved off the down limit position) but it did not receive that signal.                                  | Check door balance. Review the calibration setting. Reset motor direction and limits.                                                                                                                                                                                                 |





| Error Code | Display          | Detailed/Expanded Description                                                                                                                               | Corrective Action                                                                                                                                 |
|------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 5D         | STALL > UP LIMIT | The door stopped traveling because it expected the Up Limit to clear (door moved off the up limit position) but it did not receive that signal.             | Check door balance. Review the calibration setting. Reset motor direction and limits.                                                             |
| 5E         | STALL > MIDSTOP  | The door stopped traveling because it expected the Mid Stop Limit to clear (door moved off the mid stop limit position) but it did not receive that signal. | Check door balance. Review the calibration setting. Reset motor direction and limits.                                                             |
| 60         | CHECK STOP BTN   | The door will not move because the Stop Circuit (normally closed circuit) is not completed.                                                                 | Check the Stop Pushbutton and Stop Pushbutton wires.                                                                                              |
| 61         | TCM DISABLED     | The door will not time out and close because there are no Monitored Sensing or Safety devices enabled and/or not working.                                   | Check the ODC STB and its wires. Check the Monitored Edge, review the set-up in the menu to ensure proper setting for the installed safety input. |
| 62         | NO RADIO >> C/C  | The door will not move with a radio input (transmitters) because the unit is set for Constant Contact in the Open and/or Close Modes.                       | Review the calibration setting. Reset Open and Close Modes to Momentary                                                                           |
| 63         | CHECK AUX OPEN   | The unit determined the Auxiliary Open input on the Timer Close Module is active. This input will be ignored until it changes state.                        | Check the Auxiliary Input device wired into the Timer Close Module and Auxiliary Input device wires for a closed circuit.                         |
| 64         | CHECK STOP KEY   | The unit will not run because it determined the Stop Key input on the circuit board is active.                                                              | Power the unit down and back up. If the error persists then replace the main circuit board.                                                       |
| 65         | CHECK N-O SAFETY | The unit will not close because it determined the Normally Open Reverse input on the circuit board is active (shorted).                                     | Check the N-O Reverse device wired into the main board and the N-O Reverse Input device wires for a closed circuit.                               |
| 66         | CHECK ODC STB    | The unit will not close because it determined the ODC Safe-T-Beam input on the circuit board is active.                                                     | Check the ODC STB and ODC STB wires.                                                                                                              |
| 67         | CHECK N-C SAFETY | The unit will not close because it determined the Normally Closed Reverse input on the Timer Close Module is active (Open circuit).                         | Check the Normally Close (N-C Safe) Input device wired into the Timer Close Module and device wires for an open circuit.                          |
| 68         | CHECK MON. EDGE  | The unit will not close because it determined the Monitored Edge (MON EDGE) input on the Timer Close Module is active.                                      | Check the Monitored Edge (MON EDGE) Input device wired into the Timer Close Module and device wires.                                              |
| 69         | OVERHEATED MOTOR | The unit will not run because it determined the Thermal Overload in the motor is active.                                                                    | Check the door balance. Check the wires in the motor connector that plugs into the circuit board. Replace the motor.                              |





| Error Code | Display           | Detailed/Expanded Description                                                                                                                                                                     | Corrective Action                                                                                                                                           |
|------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6C         | NO RUN > DOWN LIM | The unit will not run because the Down/close input was activated but the unit was already at the Down Limit position.                                                                             | User input error                                                                                                                                            |
| 6D         | NO RUN > UP LIMIT | The unit will not run because the Up/open input was activated but the unit was already at the Up Limit position.                                                                                  | User input error                                                                                                                                            |
| 6E         | NO RUN > MID STOP | The unit will not run because the Up/open input was activated but the unit was already at or beyond the Mid Stop Limit position. This active input is preventing the unit from closing as well.   | User input error                                                                                                                                            |
| 6F         | EXP MODULE FAIL   | The unit may not run because it had lost communication with one or more Expansion Modules (Limit Module, Onboard Radio, Timer Close Module and/or Auxiliary Output Module)                        | Review the menu looking for a missing menu item. For example, if the limit module is defective there will not be any limit setting information in the menu. |
| 85         | EXP PORT PROBLEM  | The unit may not run because it has determined that it has lost communication with one or more Expansion Modules (Limit Module, Onboard Radio, Timer Close Module and/or Auxiliary Output Module) | Review the menu looking for a missing menu item. For example, if the limit module is defective there will not be any limit setting information in the menu. |

|    |                   |                                                                                     |                                                                                                                                     |
|----|-------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 88 | TCM FAILURE       | The unit has determined that the Timer Close Module has stopped communicating.      | Check the ribbon cable connection. Power the unit down and back up. If the error persists then replace the Timer Close Module.      |
| 89 | FDM FAILURE       | The unit has determined that the Fire Door Module has stopped communicating.        | Check the ribbon cable connection. Power the unit down and back up. If the error persists then replace the Fire Door Module.        |
| 8A | AOM FAILURE       | The unit has determined that the Auxiliary Output Module has stopped communicating. | Check the ribbon cable connection. Power the unit down and back up. If the error persists then replace the Auxiliary Output Module. |
| 8B | SPARE MOD FAILURE | Not Used                                                                            | Contact Technical Services                                                                                                          |
| 8C | LOW SYSTEM VOLTS  | The unit has determined that the secondary voltage is less than acceptable.         | Check supply voltage to the unit. Make sure the Motor Connector is plugged into the correct socket for the voltage supplied.        |





| Error Code | Display            | Detailed/Expanded Description                                                                                                                                               | Corrective Action                                                                                                                                   |
|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 8D         | HI SYSTEM VOLTS    | The unit has determined that the Line Voltage input to the unit is too high for the configuration of the unit.                                                              | Check supply voltage to the unit. Make sure the Motor Connector is plugged into the correct socket for the voltage supplied. Contact an Electrician |
| 8E         | REV INTERRUPTED    | The unit did not complete a 2 second reversal before it had encountered an issue and stopped.                                                                               | None                                                                                                                                                |
| 8F         | LIMIT MOD. FAIL    | The unit has determined that the Limit Module has stopped communicating.                                                                                                    | Check the limit cable connection. Power the unit down and back up. If the error persists then replace the Limit Module.                             |
| A0         | OPEN BTN BAD > PU  | The unit determined that the Open Pushbutton input was active (shorted) when power was applied. This input will be ignored until it changes state.                          | Check the Open Pushbutton and Open Pushbutton wires for a closed circuit.                                                                           |
| A1         | CLOSE BTN BAD > PU | The unit determined that the Close Pushbutton input was active (shorted) when power was applied. This input will be ignored until it changes state.                         | Check the Closed Pushbutton and Close Pushbutton wires for a closed circuit.                                                                        |
| A2         | ONE BTN BAD > PU   | The unit determined that the 1- Button input was active (shorted) when power was applied. This input will be ignored until it changes state.                                | Check the 1-Button and 1-Button wires for a closed circuit.                                                                                         |
| A3         | RADIO BAD > PWR UP | The unit determined that the External Radio input was active when power was applied. This input will be ignored until it changes state.                                     | Check the External Radio for a short circuit.                                                                                                       |
| A4         | AUX OPEN BAD > PU  | The unit determined that the Auxiliary Open input on the Timer Close Module was active (shorted) when power was applied. This input will be ignored until it changes state. | Check the Auxiliary Input device wired into the Timer Close Module and Auxiliary Input device wires for a closed circuit.                           |
| A5         | OPEN KEY BAD > PU  | The unit determined that the Open Key input on the circuit board was active (shorted) when power was applied. This input will be ignored until it changes state.            | Power the unit down and back up. If the error persists then replace the Main Circuit Board.                                                         |
| A6         | CLOSE KEY BAD > PU | The unit determined that the Close Key input on the circuit board was active (shorted) when power was applied. This input will be ignored until it changes state.           | Power the unit down and back up. If the error persists then replace the Main Circuit Board.                                                         |





| Error Code           | Display                     | Detailed/Expanded Description                                                                                                                                               | Corrective Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A7                   | MULT KEYS<br>BAD > PU       | The unit determined that more than one input on the circuit board keypad was active (shorted) when power was applied. These inputs will be ignored until they change state. | Power the unit down and back up. If the error persists then replace the Main Circuit Board.                                                                                                                                                                                                                                                                                                                                                                                                            |
| B0                   | OPENING ><br>XMTR #         | The unit received a valid input from a "Learned" transmitter and the door is traveling open. The transmitter ID is displayed.                                               | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| B1                   | CLOSING ><br>XMTR #         | The unit received a valid input from a "Learned" transmitter and the door is traveling close. The transmitter ID is displayed.                                              | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| B2                   | HALT > XMTR #               | The unit received a valid input from a "Learned" transmitter and has stopped the door. The transmitter ID is displayed.                                                     | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| B3                   | Rev > XMTR#<br>NO XMTR > CC | The unit received a valid input from a "Learned" transmitter and the closing door stopped and reversed and is now traveling open                                            | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| I2C<br>Comm<br>Error | I2C Comm Error              | The system cannot communicate on the I2C communication line.                                                                                                                | While the operator is powered start unplugging the expansion devices one at a time (Timer Close Module, Auxiliary Output Module, On-board Radio, Limit Module), allow the unit to try to re-initiate, if the operator is able to re-initiate the LCD will update with the current status. If this happens then the last device you unplugged is defective and needs to be replaced. If all devices have been unplugged and the operator still displays I2C Comm Error, replace the main control board. |





## Fire Door Operator FDM Module Diagnostic LED

| Trouble Code Blinks | LCD Displays                        | FDM Troubleshooting                                                                                                      | Corrective Action                                                                                                                                                                                                                                                                                                                    |
|---------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                   | CLUTCH FAULT                        | Wiring from the FDM to the electric clutch is disconnected or broken.                                                    | Inspect cable harness wiring to the clutch.                                                                                                                                                                                                                                                                                          |
| 5                   | BATTERY NOT PRESENT                 | Lead acid batteries are not charging or are disconnected.                                                                | Troubleshoot batteries to see if they hold a charge. Replace if necessary.                                                                                                                                                                                                                                                           |
| 6                   | CHARGER VOLTAGE FAIL                | FDM battery charger is not working because the supply voltage has failed.                                                | Troubleshoot batteries to see if they hold a charge. Replace if necessary.                                                                                                                                                                                                                                                           |
| 7                   | BATTERY LOW                         | Lead acid batteries are discharged.                                                                                      | Troubleshoot batteries to see if they hold a charge. Replace if necessary.                                                                                                                                                                                                                                                           |
| 8                   | EXTERNAL POWER LOSS                 | Primary input power to the FDM is not present.                                                                           | Test the power supply board and power cable harness to the FDM from the power supply board.                                                                                                                                                                                                                                          |
| 10                  | NOTIFICATION CIRCUIT OPEN           | Wiring from the FDM to the notification appliance is disconnected or broken, or the end-of-line device is not connected. | Troubleshoot wiring from the FDM board to the notification devices to find the source of the open circuit.                                                                                                                                                                                                                           |
| 11                  | NOTIFICATION CIRCUIT SHORT          | FDM connection to the notification appliance is short circuited.                                                         | Test wiring from the FDM board to the notification devices to find source of the short circuit.                                                                                                                                                                                                                                      |
| 12                  | ALARM CIRCUIT OPEN                  | Wiring from the FDM to the smoke detector is disconnected or broken, or the end-of-line device is not connected.         | Troubleshoot wiring from the FDM board to the alarm devices to find the source of the open circuit.                                                                                                                                                                                                                                  |
| 15                  | TEST REQUIRED                       | Test of the fire door and fire door operator is required.                                                                | Perform test of the fire door close function using the test key switch.                                                                                                                                                                                                                                                              |
| 16                  | REAL TIME CLOCK ERROR               | FDM clock is not working.                                                                                                | Disconnect battery and primary power to the operator. Reconnect battery and primary power. If error remains, replace the FDM board.                                                                                                                                                                                                  |
| 17                  | STUCK RESET                         | The Test/Reset key-switch is stuck in the 'RESET' position.                                                              | Troubleshoot the wiring to the test key reset switch.                                                                                                                                                                                                                                                                                |
| 19                  | COMM LOSS WITH MAIN BOARD           | FDM has lost communication with the main control board.                                                                  | Disconnect battery and primary power to the operator. Ensure I2C bus cable is correctly installed. Reconnect battery and primary power. If error remains, replace the FDM board.                                                                                                                                                     |
| 20                  | COMM LOSS WITH POWER SUPPLY MONITOR | FDM HAS LOST COMMUNICATION WITH THE POWER SUPPLY PANEL                                                                   | Disconnect battery and primary power to the operator. Ensure cables from the FDM to the power supply board are connected. Test battery voltage. If battery will not hold a charge, replace the batteries. Ensure batteries are fully charged. Reconnect battery and primary power. If error remains, replace the power supply board. |

