

Spiral® SmartSurround™ Error F120, F140, or F150: Failed Receiver

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Summary	SmartSurround Error F120, F140, or F150: Failed receiver				
Products Affected	Spiral® Doors with SmartSurround				
Keywords	spiral; smartsurround; error; f120, f140, f150				
Tools and Equipment Required	None				
Parts and Materials Required	None				
Related Media	N/A				
		Issue Date	February 2024	Status	Active



WARNING

Read and understand the entire service bulletin before proceeding.

When instructed to do so, follow lockout/tagout procedures before servicing the door.

Overview

These SmartSurround errors indicate a failure in one of the three light curtain receivers. Each of the three error codes refers to a different set of light curtains:

- F120 indicates a failure in the light curtain mounted in the door line or vertical track.
- F140 indicates a failure in the light curtain mounted on the interior.
- F150 indicates a failure in the light curtain mounted on the exterior.

Safety Information And the Meaning Of Signal Words

Technical content produced by Rytec includes safety information which must be read, understood, and followed to reduce the risk of death, personal injury, or equipment damage. This information is boxed to set it apart from other text. The boxed text identifies the nature of the hazard and appropriate steps to avoid it.

Each safety alert includes at least three components. The safety alert symbol may be general alert symbol or an alert symbol specific to the hazard. The safety signal word indicates the likelihood and potential severity of injury due to the hazard. The safety information contains information about the hazard and how to safely mitigate it.

The following severities may exist for working with this door:

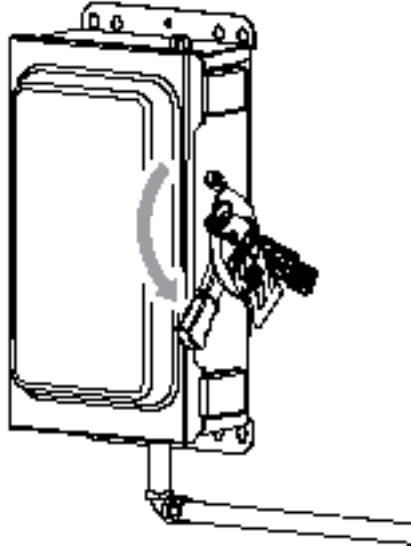
	DANGER Danger indicates a hazardous situation which, if not avoided, will cause death or serious injury.
	WARNING Warning indicates a hazardous situation which, if not avoided, can cause death or serious injury.
	CAUTION Caution indicates a hazardous situation which, if not avoided, can cause minor or moderate injury.
	NOTICE Notice is used to address practices not related to physical injury but which, if not followed, can result in damage to the door or other property.

Disconnect Power and Perform Lockout/Tagout

To prevent unexpected movement and exposure to hazardous voltages, disconnect the door from power and perform a lockout/tagout when instructed.

- 1** **Locate** the disconnect switch. The disconnect switch may be a fused disconnect located near the System 4® controller or located on the controller itself.

- 2** **Set** the disconnect switch to the **OFF** position.



- 3** **Perform** a lockout/tagout on the disconnect switch.



Lockout
Tagout



CAUTION

Inform all users of the door when the door is out of service and when it is put back into service.

Inspections

Inspect the light curtain receiver indicated to ensure there is no debris on the receiver and that the protective film was removed. Inspect the wiring to verify it is secure and has no issues.

If wiring and debris appear to not be a problem:

- **Remove** the light curtain receiver in question and swap it with one of the other light curtain receivers.
- **Remove the lockout/tagout** and resynchronize the light curtains as detailed below, due to the new configuration.
- If the **same error** (F120, F140, or F150) appears, the issue is with the wiring.
If a **different error** (F120, F140, or F150) appears, the swapped receiver is defective and must be replaced.

Perform a final light curtain synchronization to finalize the repair.

Access Service Level Parameters

Do This	Result
1 The door should have power applied and be in its normal operating mode.	
2  until the parameter screen displays  P: Password 0 001= [xxx] C# 	You are in Parameter mode. Go to parameter 999.
3    2x to reach parameter P:999 P: Password 0 999= 0000 #	The Password parameter P:999 screen displays.
4    1x to move cursor to the right P: Password 0 999= 0000_?#	You can now change the value of parameter P:999.
5    16x to set value to hexadecimal 10 P: Password 0 999= 0010_?#	Set the value to 10 (service level password).
6    until question mark changes to checkmark (value saved) P: Password 0 999= 0010_?#	The service level password is saved.

Clear Existing Synchronization

Do This	Result
1 until A:060 displays 	The AppD3 parameter (A:060) screen displays.
2 1x to move cursor to the right 	The cursor moves to the right side
3 to set parameter value 	Set the AppD3 parameter value to 0.
4 until question mark changes to checkmark (value saved) 	The AppD3 value of 0 is saved. This resets the light curtain synchronization. You must press and hold the Reset button for 5 seconds to save edits that are made to a parameter.
5 to set parameter value 	Set the AppD3 parameter value to 4.
6 until question mark changes to checkmark (value saved) 	The AppD3 value of 4 is saved. This starts the light curtain synchronization process.
7	The controller automatically moves to parameter L:201. Note: If the controller does not automatically move to parameter L:201, press the arrow keys (as in Step 1) until L:201 appears.

Assign Advanced3 Light Curtains to Parameter L:201



NOTICE

The value shown for parameter L:201 is a sample value. The actual value shown will be the ID for the light curtains included in the kit and **will not match** the value shown here.

Do This

Result

1



1x to move cursor to the right

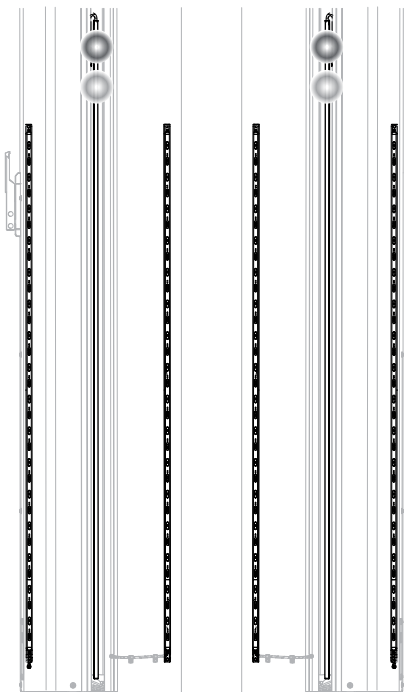
```
L: SAI Slot2 S
201= 1234-5678 #
```

Select the light curtains.

2

Check the Advanced3 light curtains mounted in the door tracks of both side columns.

- If the other light curtains light up, proceed to Step 3.
- If all 4 LEDs are flashing (transmitter: green and yellow, receiver: blue and red), the door track light curtains are synced correctly. Proceed to Step 4.



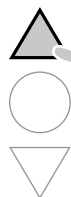
Drive side

Non-drive side

Do This

Result

3



1x to select next value

```
L: SAI Slot2 S
201= 1234-5678?
```

If the selection in Step 2 does not light the Advanced3 light curtains, press the up button to select the next set of light curtains.

Return to Step 2 to check the light curtains.

4



until question mark changes to checkmark (value saved)

```
L: SAI Slot2 S
201= 1234-5678✓
```

If the selection in Step 2 lights the Advanced3 light curtains, save the value.

5



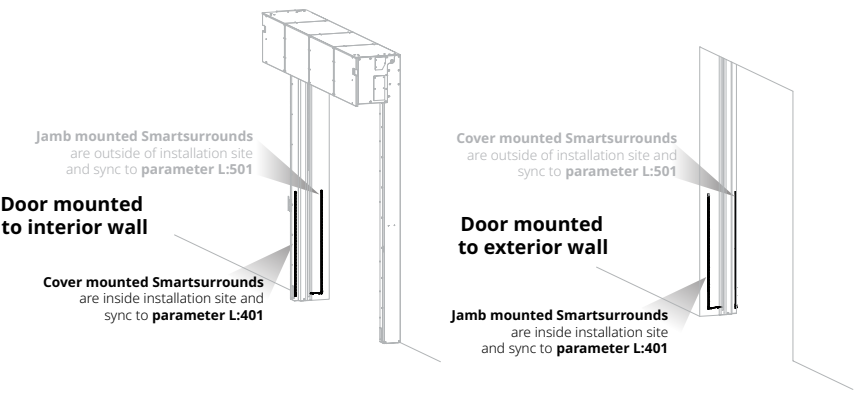
```
L: SAI Slot4 S
401= 1234-5678#
```

The controller automatically moves to parameter L:401.

Assign the Inside SmartSurround Light Curtains to Parameter L:401

On doors that are mounted to **interior walls**, the **cover mounted SmartSurround** light curtains are considered to be the inside light curtains and are assigned to parameter L:401.

On doors that are mounted to **exterior walls**, the **jamb mounted SmartSurround** light curtains are considered to be the inside light curtains and are assigned to parameter L:401.



	NOTICE
	The value shown for parameter L:401 is a sample value. The actual value shown will be the ID for the light curtains included in the kit and will not match the value shown here.

<i>Do This</i>	<i>Result</i>
1 Select the light curtains.	1x to move cursor to the right L: SAI Slot4 S 401= 1234-5678 #

2 Check the inside SmartSurround light curtains on both side columns.

- If the other light curtains light up, proceed to Step 3.
- If the LEDs are flashing, the inside light curtains are synced correctly. Proceed to Step 4.

Drive side
Non-drive side

<i>Do This</i>	<i>Result</i>
3 1x to select next value	 L: SAI Slot4 S 401= 1234-5678?
If the selection in Step 2 does not light the inside SmartSurround light curtains, press the up button to select the next set of light curtains. Return to Step 2.	

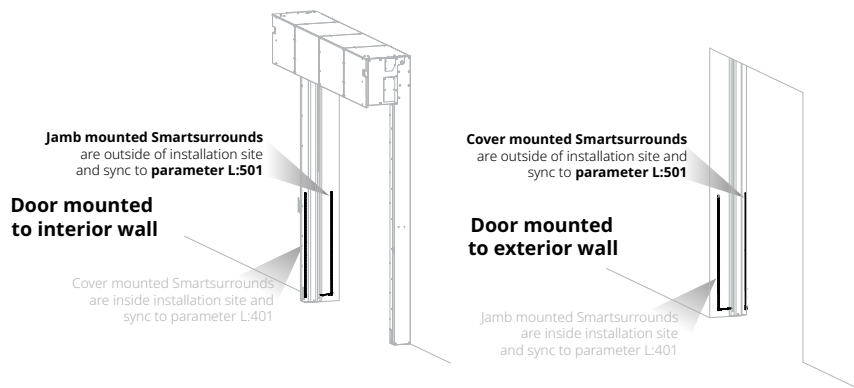
<i>Do This</i>	<i>Result</i>
4 until question mark changes to checkmark (value saved)	 L: SAI Slot4 S 401= 1234-5678✓
If the selection in Step 2 lights the inside SmartSurround light curtains, save the value.	

<i>Do This</i>	<i>Result</i>
5	 L: SAI Slot5 S 501= 1234-5678#
The controller automatically moves to parameter L:501.	

Assign the Outside SmartSurround Light Curtains to Parameter L:501

On doors that are mounted to **interior walls**, the **jamb mounted SmartSurround** light curtains are considered to be the outside light curtains and are assigned to parameter L:501.

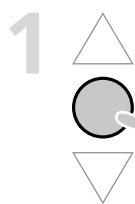
On doors that are mounted to **exterior walls**, the **cover mounted SmartSurround** light curtains are considered to be the outside light curtains and are assigned to parameter L:501.



	NOTICE
	The value shown for parameter L:501 is a sample value. The actual value shown will be the ID for the light curtains included in the kit and will not match the value shown here.

Do This

Result



1x to move cursor to the right

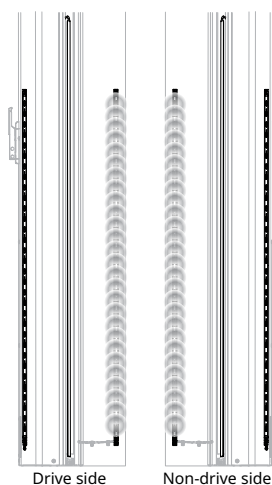
```
L: SAI Slot5  S
501= 1234-5678 #
```

Select the light curtains.

2

Check the outside SmartSurround light curtains on both side columns.

- If the other light curtains light up, proceed to Step 3.
- If the LEDs are flashing, the outside light curtains are synced correctly. Proceed to Step 4.



Do This

Result



1x to select next value

```
L: SAI Slot5  S
501= 1234-5678?
```

If the selection in Step 2 does not light the outside SmartSurround light curtains, press the up button to select the next set of light curtains.

Return to Step 2.



until question mark changes to checkmark (value saved)

```
L: SAI Slot5  S
501= 1234-5678✓
```

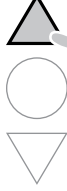
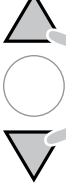
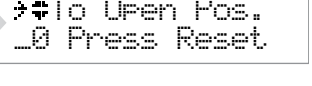
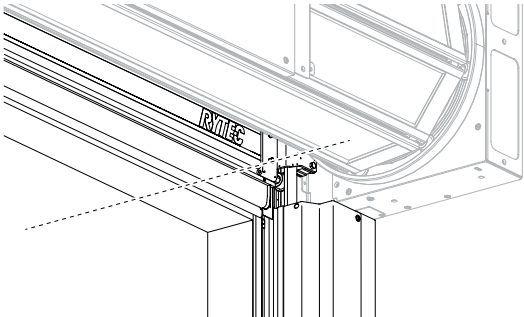
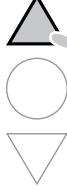
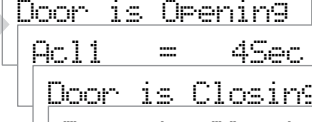
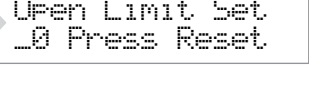
If the selection in Step 2 lights the outside SmartSurround light curtains, save the value.

5

```
P: Door Cycles  S
000#  0000 Cyc
```

The controller automatically moves to parameter P:000.

Set Limits

Do This	Result	Do This	Result
1  hold until Synchron appears   To abort the limits sequence, hold Reset. Otherwise, continue to Step 2.		5  1x to start   The door panel closes and stops at the bottom of the light curtain. The following message is displayed.	
2  1x to begin limits sequence   The limits sequence begins.		 1x to start auto calibration  	
3  adjust open position   Adjust the open limit. For Spiral doors, the bottom of reversing edge should line up with the lintel. See the installation manual for other models of Spiral door. 		6  1x to start auto calibration   The door opens and closes automatically up to 12 times. The door may not open or close completely during automatic calibration. This is normal. The controller automatically sets the close limit while the door calibrates. When calibration is complete, the door switches to run mode. The close limit can be manually adjusted after calibration is complete. See the installation manual for details.	
4  until Open Limit Set displays   A quality check is performed. When it is complete, a scrolling message of "Press Close button to begin" is displayed.			

Finalization

The door and SmartSurround light curtains should now be operational. If errors continue to occur, repeat the process, ensuring the proper light curtains are selected during each step of the synchronization and that any replaced light curtain receivers are properly wired.