

Spiral® SmartSurround™ Error F102 or F103: Disturbed CAN Bus Signal

Technical Support 800-628-1909 (toll-free) helpdesk@rytecddoors.com

Summary	SmartSurround Error F102 or F103: Disturbed CAN bus signal			
Products Affected	Spiral Doors with SmartSurround			
Keywords	spiral; smartsurround; error; f102; f103			
Tools and Equipment Required	#2 Philips screwdriver, small precision screwdriver (Philips or flat)			
Parts and Materials Required	Ferrite filters if missing			
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

SmartSurround errors F102 or F103 are an indication of a **disturbed CAN bus signal**. This prevents normal operation of the door due to poor signal quality.

The most common causes for this error are interference from the high voltage power connections, due to incorrect wiring or shielding, or damaged wiring for the CAN bus system itself.

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:

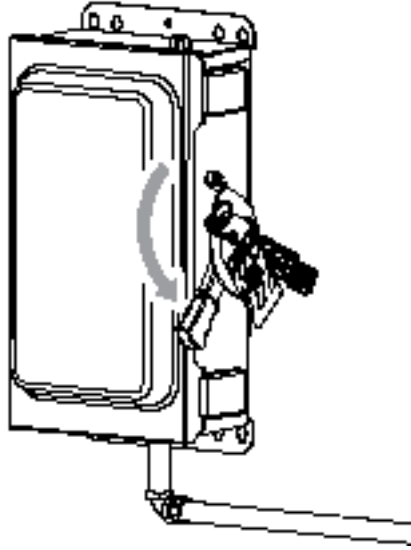
	<table><tr><th>DANGER</th></tr><tr><td>Danger indicates a hazardous situation which, if not avoided, will cause death or serious injury.</td></tr></table>	DANGER	Danger indicates a hazardous situation which, if not avoided, will cause death or serious injury.
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Disconnect 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

High Voltage Interference

1 High and low voltage run together

High and low voltage **cannot** be run in the same conduit or zip-tied together.

Verify they are run in separate conduits or routed 6 inches apart.

2 Ferrite filters missing

Verify all ferrite filters are installed on the high voltage power lines.

3 Improper shielding

Verify the shielding on the motor cable is properly grounded and installed under the P-clip.

Verify the shielding on the CAN cable is properly grounded and connected to the SH terminal on the COMM board.

Poor CAN Bus Connections

1 Broken pin on connector

Inspect all CAN bus connectors for debris, missing pins, or broken pins.

2 Short circuit

Inspect all the electrical connections for any shorts, moisture, or “whiskers” (strands of wire sticking out of connections).

3 Open circuit

Inspect connections to verify tight connections and all cables are in good condition. If any cables are damaged they must be replaced.

Repair

- 1 Repair** any of the above conditions if they are discovered. The door will not function properly until the F102 or F103 error is corrected.

If you are unable to correct the errors, contact Rytec Technical Support with the door serial number by calling 800.628.1909.

	NOTICE
	Take pictures of the System 4 control wiring, specifically the incoming high voltage and motor connections, conduit runs, and the overall installation of the door, to assist with troubleshooting.

Door Setup and Operation

- 1 Remove** the lock-out/tag-out and apply power to the door.

- 2 Operate** the door for 20 cycles.
Verify the F102 or F103 error no longer appears.