



Fire Communicator

Inspection Guide

ADC-FC100-Tx

Using the test instructions, perform a diagnostic to verify the correct installation of the ADC - FC100 communicator. The instructions are designed to test cellular and Ethernet network connections as well as for troubleshooting purposes.

Before you start:

- Ensure that the installation is performed by qualified personnel in accordance with the manufacturer's instructions and applicable standards.
- Verify that all components are present: device, antennas, and Ethernet cable.
- Follow the guidelines for wiring: the length of connecting wires should not exceed 10 feet (3m); wire cross-section should be between 22 AWG and 16 AWG.
- Route all cables through dedicated cable conduits. If connecting multiple conductors to one terminal, use a multiple conductor ferrule.
- Antennas must be installed when the device is powered down.
- After wiring, ensure that all power and antenna connections are secure.

Verify the connection status of the cellular network and Ethernet connection (Dual-Path):

Step number	Step description	LED state and color	Description/Action required	Check if completed
1	After setup	All LEDs: Red	Initial state after power-up.	✓ ✕
2	Connections OK	CELL & ETH: Green SYS: Blue or Green	Correct configuration, proceed to next steps.	✓ ✕
If each step is marked with ✓, the test is passed.				

Verify the device response after loss of Ethernet connection:

Step number	Step description	LED state and color	Description/Action required	Check if completed
1	Connected network	ETH: Green	ETH LED indicates active Ethernet connection.	✓ ✕
2	Disconnect ETH cable	—	Unplug the Ethernet cable to simulate connection loss.	✓ ✕
3	Wait up to 2 minutes	—	Allow up to 2 minutes for the device to recognize loss of connection.	✓ ✕
4	Connection lost	ETH: Red – 3 flashes (repeatedly) SYS: Blue	ETH LED turns red, indicating loss of Ethernet connection. SYS LED turns blue, indicating that one of the communication paths (Cellular or Ethernet) is down. *	✓ ✕
5	Output check	—	Verify that the output has been activated (if it has been configured before).	✓ ✕
6	Restore connection	ETH: Green	Plug in the Ethernet cable to restore the connection. Confirm that the ETH LED light is green.	✓ ✕
If each step is marked with ✓, the test is passed.				

NOTE: * Output should switch on (time of switching depends on User setting/Service packages - from 1m to 6h) and FACP should locally annunciate.

Verify the device response after loss of cellular connection:

Step number	Step description	LED state and color	Description/Action required	Check if completed
1	Connected network	CELL: Green	CELL LED indicates active cellular connection.	✓ ✕
2	Remove antenna(s)	—	Unscrew antenna(s) to simulate connection loss.	✓ ✕
3	Wait up to 2 minutes	—	Allow up to 2 minutes for the device to recognize loss of connection.	✓ ✕
4	Connection lost	CELL: Red – 3 flashes (repeatedly) SYS: Blue	CELL LED turns red, indicating loss of cellular connection. SYS LED turns blue, indicating that one of the communication paths (Cellular or Ethernet) is down.	✓ ✕
5	Output check	—	Verify that the output has been activated (if it has been configured before).	✓ ✕
6	Restore connection	CELL: Green	Attach the antenna(s) to restore the connection. Confirm that the CELL LED light is green.	✓ ✕
If each step is marked with ✓, the test is passed.				

NOTE: Output should switch on (time of switching depends on User setting/Service packages - from 1m to 6h) and FACP should signal it.

Verify the device response after loss of cellular and Ethernet connection:

Step number	Step description	LED state and color	Description/Action required	Check if completed
1	Connected network	CELL & ETH: Green	LEDs indicate active cellular and ethernet connection.	✓ ✕
2	Remove antenna(s) and disconnect ETH cable	—	Unscrew antenna/antennas and unplug the Ethernet cable to simulate connection loss.	✓ ✕
3	Wait up to 2 minutes	—	Allow up to 2 minutes for the device to recognize loss of connection.	✓ ✕
4	Connection lost	CELL: Red – 3 flashes (repeatedly) ETH: Red – 3 flashes (repeatedly) SYS: Red – 3 flashes (repeatedly)	CELL and ETH LEDs turn red, indicating loss of connection.	✓ ✕
5	Output check	—	If both connection paths are disconnected, check: • Drop phoneline voltage, • Output activation. (if it has been configured before).	✓ ✕
6	Restore connection	CELL & ETH: Green	Attach the antenna(s) and plug in the Ethernet cable to restore the connection. Confirm that the CELL & ETH LED light is green.	✓ ✕
If each step is marked with ✓, the test is passed.				

NOTE: Output should switch on (time of switching depends on User setting/Service packages - from 1m to 6h) and FACP should signal it.

Troubleshooting:

LED	LED state and color	Description
SYS	Red – 3 flashes	No connection to server, trying to connect.
Solution: Check the configuration, restart the device, check signal strength, check Ethernet cable and antennas.		
CELL	Green + Blue – flashing	Number of flashes corresponds to the cellular network signal quality (1-8). Recommended signal strength: 3 or higher.
Solution: If flashes show signal strength below 4 and device is losing cellular signal, make sure antennas are installed firmly to the PCB and whether the antennas are installed as instructed. Try restarting the device.		
CELL/ETH	Red – flashing	• 2 flashes – SIM error • 3 flashes – trying to connect to server • 5 flashes – modem error
Solution: <u>If 2 flashes</u> , check the SIM card – if it's installed correctly and doesn't have visibly damaged pins, try different SIM card, restart the device; <u>if 3 flashes</u> check the device configuration; <u>if 5 flashes</u> , please contact Alarm.com CORE Technical Support at 866-834-0470.		

NOTICE: If you haven't found the solution to your problem, please contact Alarm.com CORE Technical Support at 866-834-0470.

NOTICE: Fire communicators shall be inspected and tested at least annually by qualified service personnel. Confirm with your local AHJ about testing frequency.