
Alarm.com Fire Communicator (ADC-FC100) - Power and Wiring Guide

Wiring gauge & power requirements

Main Power Supply: Voltage supply	24VDC (acceptable 12VDC - 28VDC)
Type of supported backup battery	Valve-regulated lead-acid 12V-7Ah
Wiring gauge	16 to 22 AWG
Wire length	The length of the connecting wires should not exceed 10 feet (3m).

Wiring guides

Expand all

For easier installation, it is recommended to use POTS/PTSN lines when possible. For Fire Alarm Control Panels (FACP) without telephone dialers, see the following section about wiring with relays.

Install the antennas ^

- Antennas, like SIM cards, must be installed when the FC100 is powered down.
- The communicator is equipped with two antennas: the primary (MAIN) antenna and the supporting diversity (DIV) antenna.

Note: The antennas included with the FC100 can be installed into either the primary or diversity terminals.

- Do not use an antenna that is damaged or not approved by the manufacturer. Otherwise, it may lower the signal quality, violate requirements set by certificates, or even damage FC100.
- An antenna installed below ground, behind metal objects, or near the source of RF interference may not provide good signal quality.
- Signal strength can be viewed remotely using the Partner Portal or MobileTech app. For more information, see [Remotely find the signal strength of a module](#).
- The external antennas used with the communicator must be positioned to maintain a minimum separation distance of 7.8 inches (20cm) from all individuals.

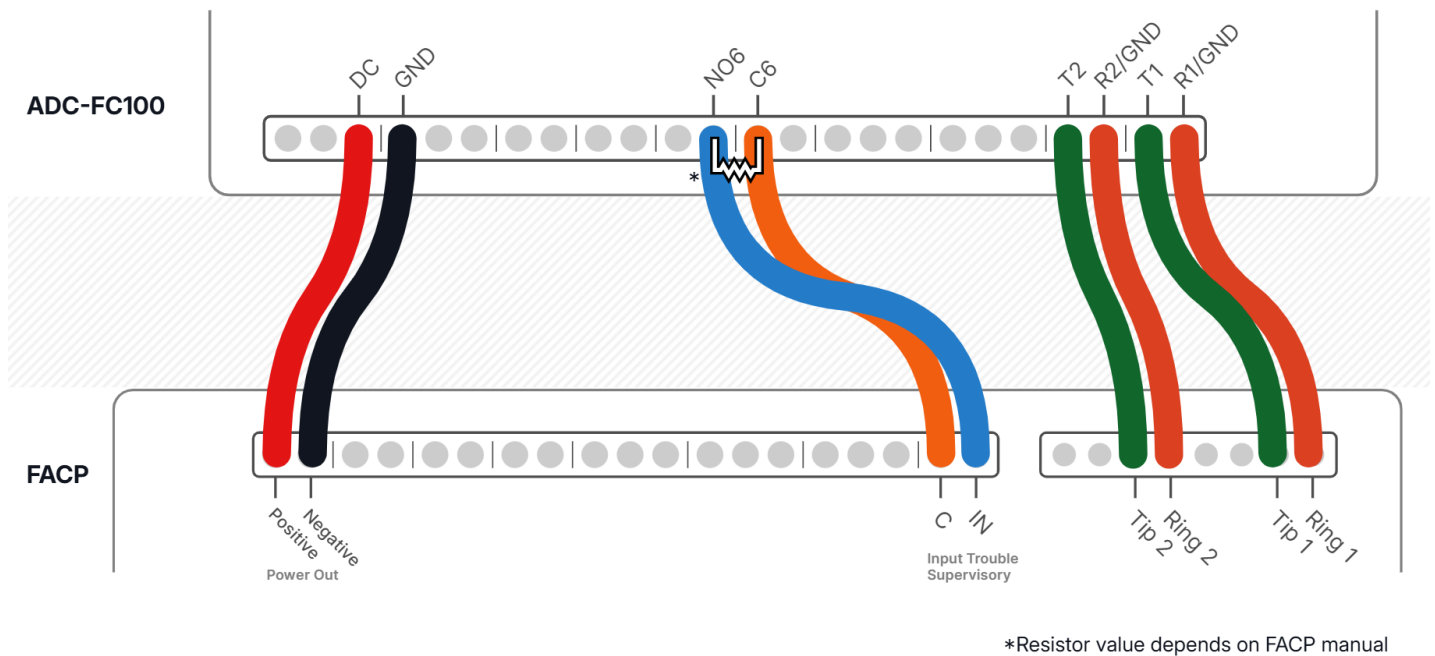
- Antenna should not be co-located or operated in conjunction with any other antenna or communicator.

Wiring the communicator with an FACP using a telephone dialer^

Caution: The FACP must be powered off before wiring the FC100. Wiring the FC100 while the FACP is powered on may cause damage to the communicator.

The following diagram shows connecting the communicator with an FACP using a telephone dialer.

Important: The FC100 must be installed in a metal enclosure. For more information, see [Alarm.com Fire Communicator \(FC100\) - Installation Guide](#).



Note: Some panels do not have onboard terminals for the Input Trouble Supervisory connections and would require additional hardware for the FACP. If this is required for your installation, please contact the manufacturer of your specific FACP.

ADC-FC100

DC

GND

R1

T1

FACP (Reporting events over a phone dialer)

Positive Terminal

Negative Terminal

Ring 1 TELCO Terminal

Tip 1 TELCO Terminal

ADC-FC100

FACP (Reporting events over a phone dialer)

R2

Ring 2 TELCO Terminal

T2

Tip 2 TELCO Terminal

NO6

*Input Trouble Supervisory IN

C6

*Input Trouble Supervisory C

Important:

1. *Some control panels may not have an input on the unit itself and require the purchase of an additional module. See the FACP-specific installation guide for more information.
2. For UL installations, ensure the FACP's AC delay period is set to at least 1 hour.

Note: Some panels may not have designated aux power terminals. In that case, some panels can configure the Notification Appliance Circuit (NAC) terminals as an auxiliary power source. Please refer to the specific model FACP installation guide for more information.

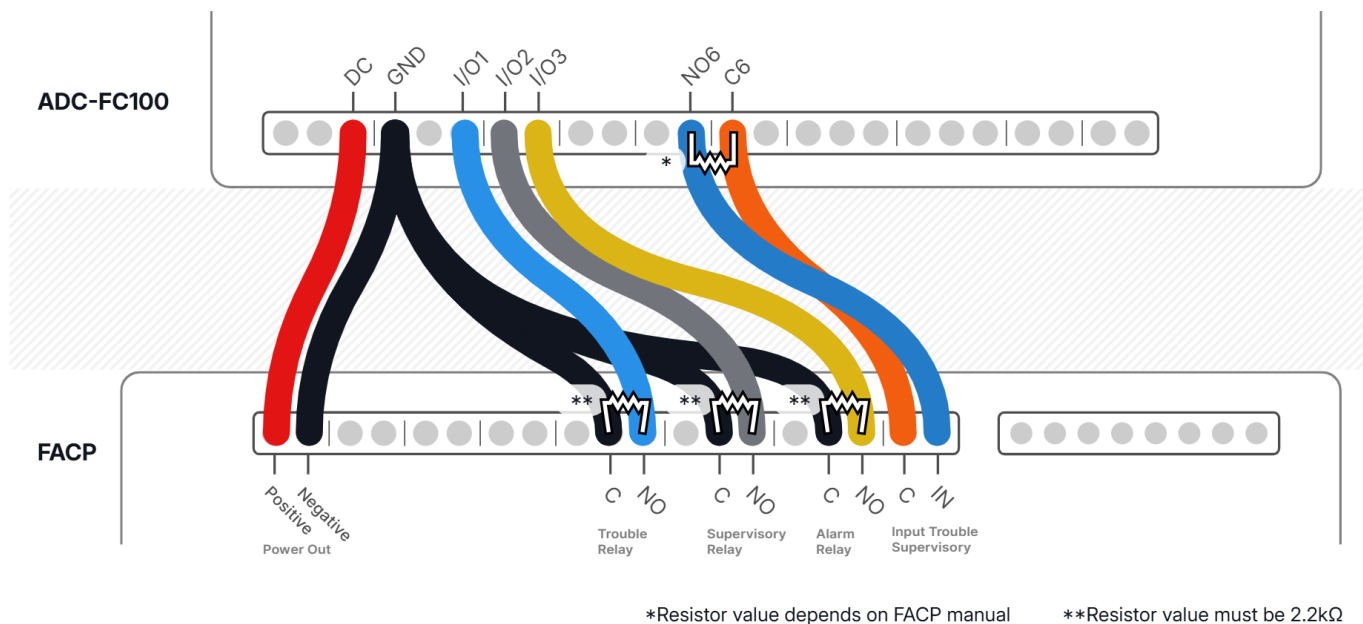
Wiring the communicator with an FACP using relays[^]

Caution: The FACP must be powered off before wiring the FC100. Wiring the FC100 while the FACP is powered on may cause damage to the communicator.

The following diagram displays connecting the communicator with a FACP using relays (FACP without a dialer). Use this configuration if POTS lines are not available.

Important: 2.2k ω EOL resistors must be installed in parallel when using relay reporting. Failure to do so will result in only generic tamper reports, rather than alarm, trouble, or supervisory signals.

The FC100 must be installed in a metal enclosure. For more information, see [Alarm.com Fire Communicator \(FC100\) - Installation Guide](#).



Note: You can use a multiple-conductor ferrule (MCF) or make a short pigtail with a wire connector to combine the ground and common wires, so fewer wires need to be inserted into the GND terminal.

ADC-FC100	FACP (Reporting events over relay)
DC	Positive Terminal
GND	- Negative Terminal - C Terminals: - Trouble Relay - Supervisory Relay - Alarm Relay
IO/1	Trouble Relay - NO Terminal with a 2.2kΩ resistor
IO/2	Supervisory Relay - NO Terminal with a 2.2kΩ resistor
IO/3	Alarm Relay - NO Terminal with a 2.2kΩ resistor
NO6	*Input Trouble Supervisory IN
C6	*Input Trouble Supervisory C

Panels without AC fail delay should be wired only through a relay.

Note: Some panels may not have designated aux power terminals. In that case, some panels can configure NAC terminals as auxiliary power sources. Please refer to the specific model FACP installation guide for more information.

Important:

1. *Some control panels may not have an input on the unit itself and require the purchase of an additional module. See the FACP-specific installation guide for more information.
2. For UL864:
 - The AC Fail event generated by the FACP can be delayed by the FC100 communicator using any of the inputs from I/O1 to I/O4. If the FACP does not have a TELCO dialer (POTS) and communication is managed using only three relays, the AC FAIL event delay must be on the FACP side. In this case, the alarm panel must have a built-in delay that ensures the information reaches the monitoring station no sooner than one hour after the power failure and no later than three hours after.
 - When wired to FACP's without a TELCO dialer, the alarm transmissions will transmit general alarms as one zone.