

Synergy™ Compact Control Processort FL10 with Dual Network, RS-232/422/485, IR, Relay, and GPIO control interfaces

SYN-CTL-FL10

WyreStorm
Quickstart Guide

💡 WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.

⚠️ IMPORTANT! Installation Requirements

- Read through the Wiring and Connections section for important wiring guidelines before creating or choosing premade cables.
- Visit the product pages to download the latest firmware, document version, additional documentation, and configuration tools.

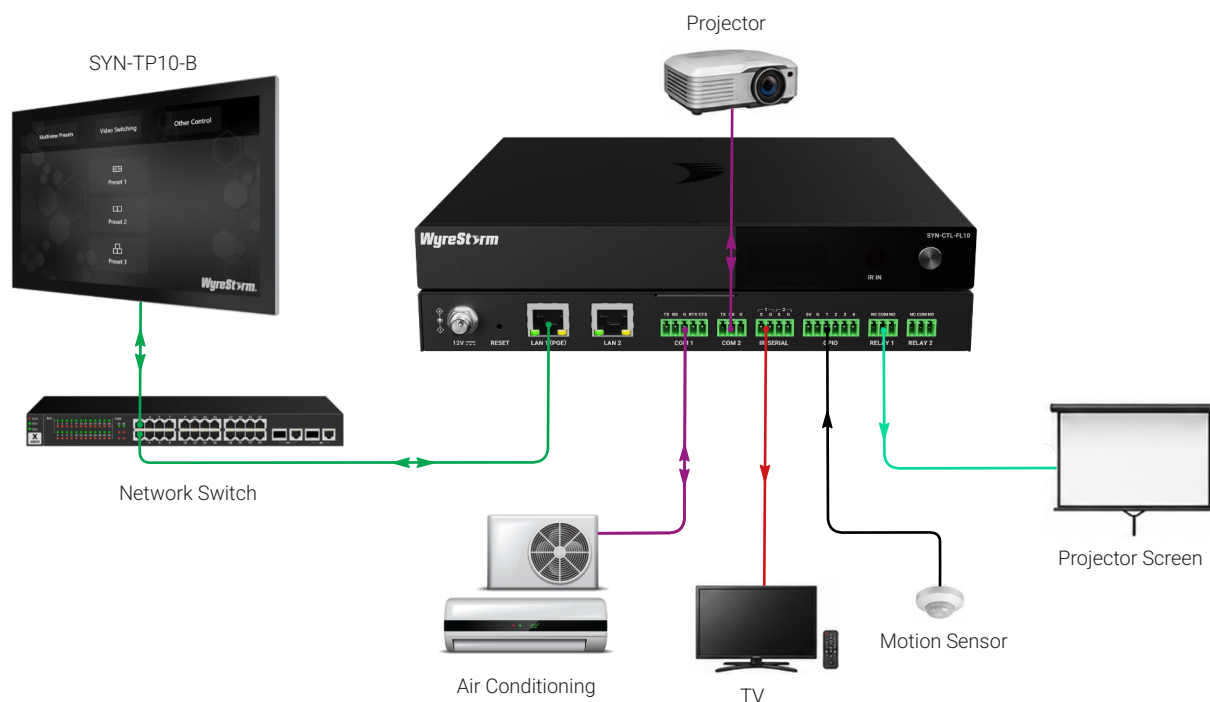
In the Box

1 x SYN-CTL-FL10 Unit
1 x 12V@2A DC Power Adapter
4 x AC Power Cord (US, EU, UK, AU plugs)
3 x 3.5mm 3-pin Phoenix Male Connectors
1 x 3.5mm 4-pin Phoenix Male Connector
1 x 3.5mm 5-pin Phoenix Male Connector
1 x 3.5mm 6-pin Phoenix Male Connector
4 x Wall Mount Brackets (with Screws)
2 x Rack Mount Brackets
1 x Quickstart Guide

Basic Wiring Diagram

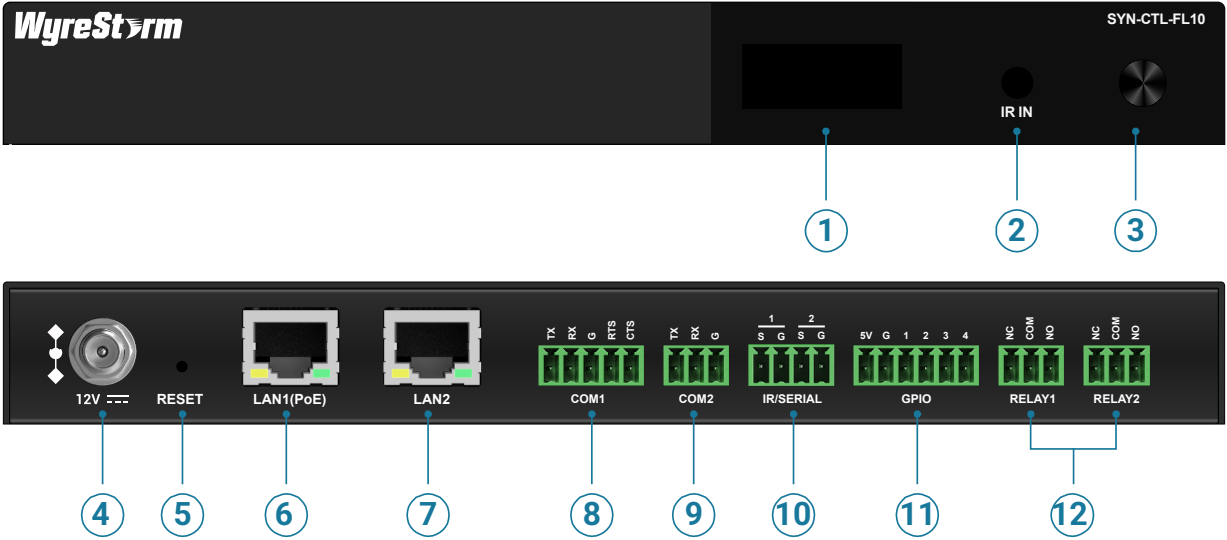
KEY

- RS232
- Relay
- IR
- GPIO
- Ethernet



⚠ Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switch. Read through this section in its entirety before running or terminating any wires to ensure proper operation and to avoid damaging the equipment.



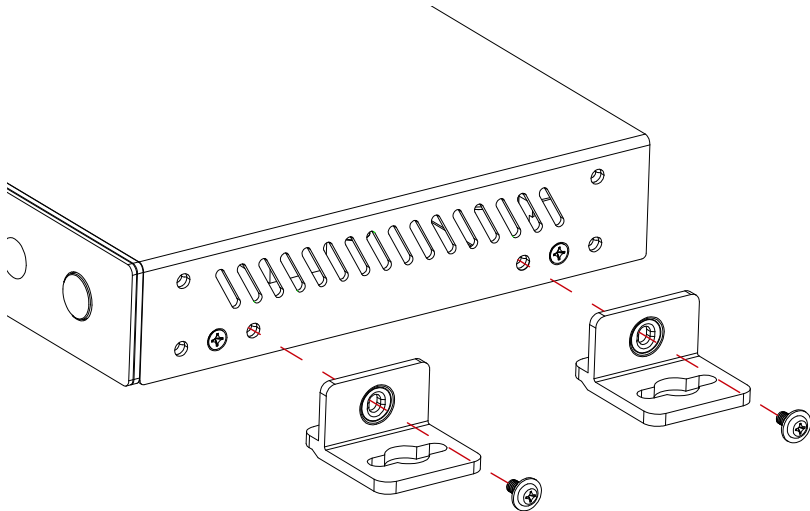
#	Name	Description
1	OLED Screen	Displays device information, including LAN IP addresses, firmware version, device temperature, and hostname. LAN-1 IP:192.168.11.230 LAN-1 Net Mask:255.255.255.0 Hostname:SYN-CTL-FL10-008B0F
2	IR IN	IR receiver window for receiving IR control signals.
3	Button	Press to cycle through OLED screen information pages.
4	12V	Connect to a supplied 12V@2A power adapter (if PoE is not used)
5	RESET	Press and hold for 10 seconds to restore factory default settings and reboot the device.
6	LAN 1 (POE)	RJ45 Gigabit Ethernet port for LAN control (Telnet API and Web UI) and PoE power input. Default IP mode: DHCP
7	LAN 2	RJ45 Gigabit Ethernet port for LAN control (Telnet API and Web UI) Default IP mode: DHCP
8	COM 1	5-pin phoenix connector for serial communication. Supports RS-232, RS-422, and RS-485 modes.
9	COM 2	3-pin phoenix connector for RS-232 serial communication.
10	IR/SERIAL	Two configurable IR output or serial Tx ports via 4-pin phoenix connector.
11	GPIO	6-pin phoenix connector for 4-channel configurable GPIO (digital input/output).
12	RELAY 1–2	Two independent relay control ports via 3-pin phoenix connectors.

Note: The DC adapter takes priority over PoE. When both are connected, the device draws power from the adapter.

Installation Method

Attach the two wall mount brackets to one side of the enclosure using the provided screws, as shown in the figure below. Repeat the above step for the other side of the device. Mount the device with the brackets at the desired location using user-supplied screws (not included).

Note: Disconnect the device from the power source before installation.



Setup and Configuration

Once SYN-CTL-FL10 is powered on, IP address of each LAN interface can be seen on the front OLED screen. You can access the SYN-CTL-FL10 settings through its Web User Interface by entering the unit's IP address into your preferred web browser. This allows you to check the diagnostics, change settings and setup the device.

You can access programming environment by clicking the Red icon at the top right corner.

WyreStorm®

SYN-CTL-FL10

 admin 

 Overview

 Node-Red

 **System Settings**

 Network Profiles

 Access Control

 Diagnostics

> General

> Commands

> Date / Time

> HTTPS

HTTPS Status

☒

Certificate

☒ Self-Signed ☐ Customized

Certificate File

Select the Certificate file

Upload

Private Key Password



Apply

> Cloud

Connect to Cloud

☒

Cloud Server Status

☐ Disconnected



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Specifications

General Information	
LAN	2 x RJ45 Gigabit Ethernet ports
PoE Support	IEEE 802.3af PD (LAN 1)
Serial	1 x configurable RS-232/422/485 port, 1 x RS-232 port
IR	2 x configurable IR output / serial Tx ports
GPIO	4 x configurable digital input/output channels
Relay	2 x SPDT relay ports
Display	1 x OLED Screen
Button	1 x RESET button; 1 x Front Panel button
Control Method	LAN (Web UI / Telnet API)
Automation Platform	Node-RED
Environmental	
Operating Temperature / Humidity	32–113°F (0–45°C), 10%–90% RH, non-condensing
Storage Temperature / Humidity	–4–158°F (–20–70°C), 10%–90% RH, non-condensing
ESD Protection	Human body model: ±8kV (air-gap discharge) / ±4kV (contact discharge)
Power	12V DC; PoE
Power Consumption	3.6W (Max)
Dimensions (W x H x D)	8.46" x 0.98" x 4.72" (215mm x 25mm x 120mm)
Net Weight	1.54lbs (0.70kg)
GPIO Digital Input	
Input Voltage Range	0–30 VDC
Logic High Threshold	> 2 VDC
Logic Low Threshold	< 0.8 VDC
Undefined Region	0.8–2.0V DC
Input Impedance	> 10k ohms
Pull-up Resistor	Programmable 5 V, 1k Ω
GPIO Digital Output	
Output Impedance	60Ω
Pull-up Resistor	Programmable 5 V, 1k Ω
Power	5V 0.2A
Relay	
Contact Rating	1 A @ 30 VAC/VDC
IR Output	
Carrier Frequency	20 kHz – 60 kHz
COM Ports	
Baud Rate	Up to 115200 bps
Protocols	Port 1: RS-232 / RS-422 / RS-485; Port 2: RS-232
Flow Control	RTS/CTS (COM1 only)
Pin Definition	RS-232: 1 = Tx, 2 = Rx, 3 = GND, 4 = RTS, 5 = CTS RS-422: 1 = Tx-, 2 = Rx+, 3 = GND, 4 = Tx+, 5 = Rx- RS-485: 1 = Tx-, 3 = GND, 4 = Tx+

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information

WyreStorm Technologies ProAV Corporation warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.

