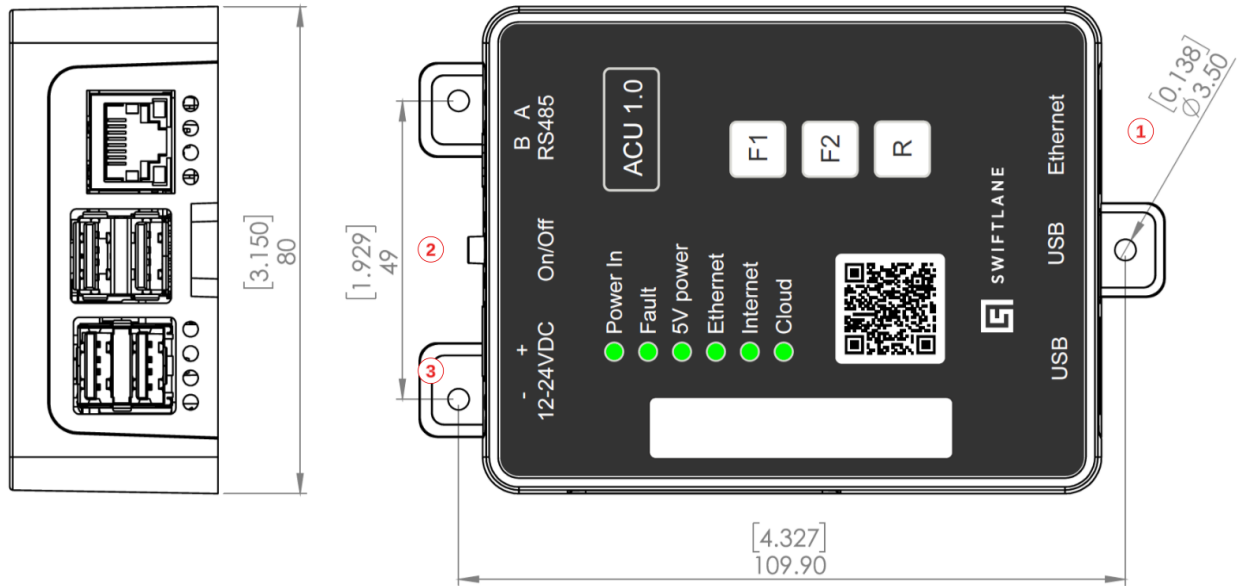# 1.ACU Specifications

1.1.Overview

1. RJ45 Ethernet Connection
2. Power Button - Push Type
3. Power Input Port

2.Electrical Specifications

Operating Voltage	12-24 VDC
Current Requirement	0.3A Average Current. 1A Max Current
Operating Temperature	22 °F to 140 °F
Humidity	10-90%

3.Wire Recommendations

	AWG	Twister Pair?	Conductors	Shielded?	Max Length
Power (22 gauge)	22	No	2	No	250 ft.
Power (18 gauge)	18	No	2	No	200 ft.
RJ45-Ethernet	N/A	Yes	Cat5	No	328 ft.

4.Mounting the ACU

The ACU should be mounted in a secure cabinet to ensure that it is not affected by environmental disturbances. Swiftlane can provide pre-configured cabinets with all the required components mounted in it. If you are using your own cabinet/chassis please make sure that the ACU is mounted properly to avoid any issues.

Here is general checklist for mounting the ACU:

1. Make sure that the chassis/cabinet is mounted firmly on the wall.
2. Make sure that the chassis/cabinet door can swing open easily to allow the installer free access after installation is complete.
3. Ensure that the chassis is properly grounded.
4. If mounting on a metallic chassis, use the magnetic mounts provided by Swiftlane.

5.Powering Up and Testing the ACU

Note for installers: It is recommended that you power and test the ACU board at your location before you start the installation to avoid unnecessary issues.

5.1.Power Precautions

Before powering the DCU make sure:
- The power supply or power adapter is not plugged into the power 120 VAC outlet.
- The power supply meets the voltage and current requirements.

5.2.Wiring DC power supply to the ACU

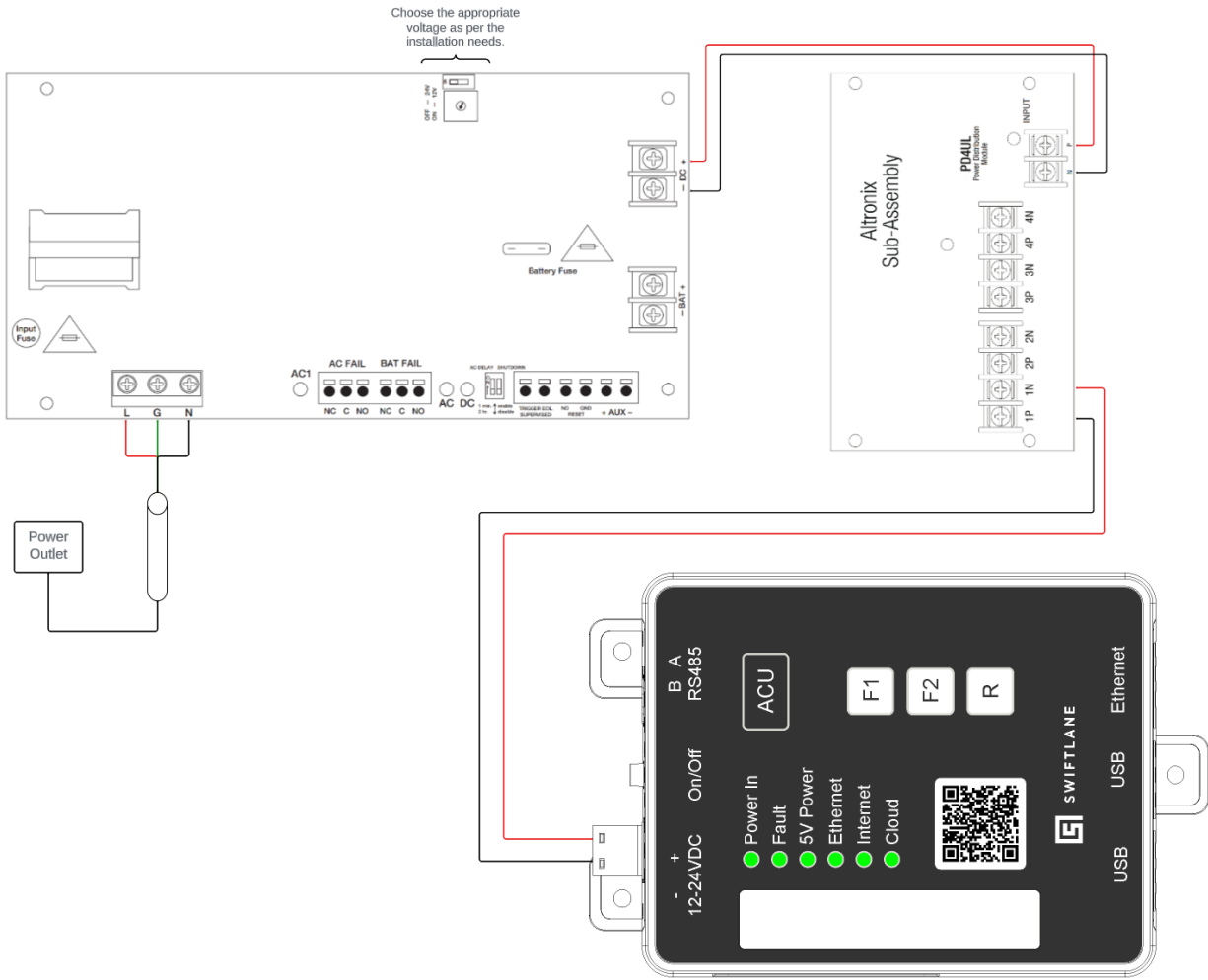5.2.1.   Connect the positive and negative terminals of the power supply to the Power Input Port of the ACU.

5.2.2. Connect the Ethernet cable to DCU. Please make sure that the ethernet cable is coming from an internet connected source.

5.2.3. Turn on the power supply and press the power button so that it is in "ON" (pressed) state. The "Power In" and "5V Power" LEDs should turn green.

5.2.4. Wait for about 3 minutes for the "Ethernet", "Internet" and "Cloud" LEDs to come on. Once these LEDs are connected, it means that the ACU is working perfectly.

6.Wiring Examples

6.1.Wiring DCU to Altronix Power Supply (eFflow) with PD4 board.

7.Common Issues

Note: *Status LEDs are updated every 30 seconds, whenever a fix is made whose status can be verified by the LED, please wait for 30 seconds for the corresponding status LED to update.*

7.1.“Fault” LED is turned on.
“Fault” LED can turn on in red due to power supply or wiring issues. Please check:
- That the power supply is providing appropriate voltage. It should not be below 10V and higher than 27V at max.
- Polarity of the power supply is correct.

7.2.“Power In” LED is not turned on.
“Power In” LED will not turn on if there is a power supply issue.
- Ensure that the power supply is turned on and provides appropriate voltage.
- Ensure that the “Power Button” is in a pressed state.

7.3.“Power In” LED is turned on but “5V Power” LED is not turned on.
This issue can occur when the internal 5V power rail of the ACU is not working. Please send the unit back to Swiftlane and ask for a replacement.

7.4.“Ethernet” LED is not turned on.
If the “Ethernet” LED is not turning on, then it is possible that:
- Ethernet cable is not properly connected to the ACU.
- Ensure that the ethernet cable is not faulty.
- The network switch is not powered on.
- The network is not assigning a IP to the ACU, please check that the local network has enough available IPs in the DHCP pool.

7.5.“Internet” LED is not turned on.
This issue can occur when the internet connection is down at the client location.
- Please confirm that the internet connection is working.
- Please check with the building IT administrator to make sure that they have not blacklisted the ACU device from internet connection.

7.6.“Cloud” LED is not turned on.
This issue can occur when the ACU is not able to connect to the Swiftlane backend servers.
- Ensure that internet connection is available.