

How to Wire in Motor Soft Stop Switch

Non-positive isolation feature

- If connecting over MODBUS, a C1D2 two-positioner switch may be wired to the controller for a local "Start/Stop" motor switch. This switch will allow Operators on-site to turn the motor ON or OFF with an easy switch (no laptop or Bluetooth connection required). This will not prevent MODBUS users from viewing pump parameters remotely, as the power to the controller has not been affected.
- Note: This is <u>not a positive isolation method</u> of stopping the motor, consider this equivalent to the "start/stop" buttons in the app and laptop software

Feature Availability and Wiring Requirements:

- Basic Controllers All versions
 - Wire button or switch to AI3+
- Advanced Controllers
 - With firmware version V37 or prior Wire button or switch to AI3+
 - With firmware version V38 or later Wire button or switch to **DI3+**
- For assistance identifying controller version or model, please look directly on the green controller. There will be a part number label "LCOC-1000-B" for basic or "LCOC-1000-A" for advanced and a white tag on the bottom right side of the controller listing the version number (ie:190801V35).



Warning: The soft stop feature does not provide positive energy isolation, and it should not be used for emergency shutdown. This feature provides on/off switch functionality, and it should be wired in fail-safe mode.

Installation Instructions

- Wire 24V straight to AI3+ or DI3+
 - Power can come from the main power supply
 - Wire the positive end to AI3+ or DI3+ and the negative end to "GND" in the Analogue I/O terminal block (any GND will be sufficient as they are a common ground)
- Install a stop button or an on/off switch to AI3+ or DI3+ and ensure the switch is within arms reach of the pump or compressor
 - Install switch as per local electrical code requirements and ensure it is rated for hazardous area
- Ensure 24V is at AI3+ or DI3+ so when energized, the unit will run
 - When the provided power is 0V, the unit will stop (fail safe wiring and operation)
- Connect to the LCO Technologies Software on your desktop computer or mobile app
 - Log in as "Technician"
 - Password "Automatio"
 - o Go to the "system setup" tab
 - Enable the function titled "motor soft stop" by selecting "enable" from the drop-down menu
- Check that function is working. The unit should stop at 0V and run when energized at 24V.

Reference wiring diagram on the next page





Figure: Wiring Diagram for Soft Stop Switch on Al³⁺

Note: Please use Gauge 20, single strand wires for all signal terminals (I/O) on the smart controller. Wires can be a maximum of 300 ft long and must be twisted and ground shielded.