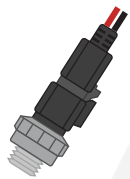


What's Included



Alpha Drive



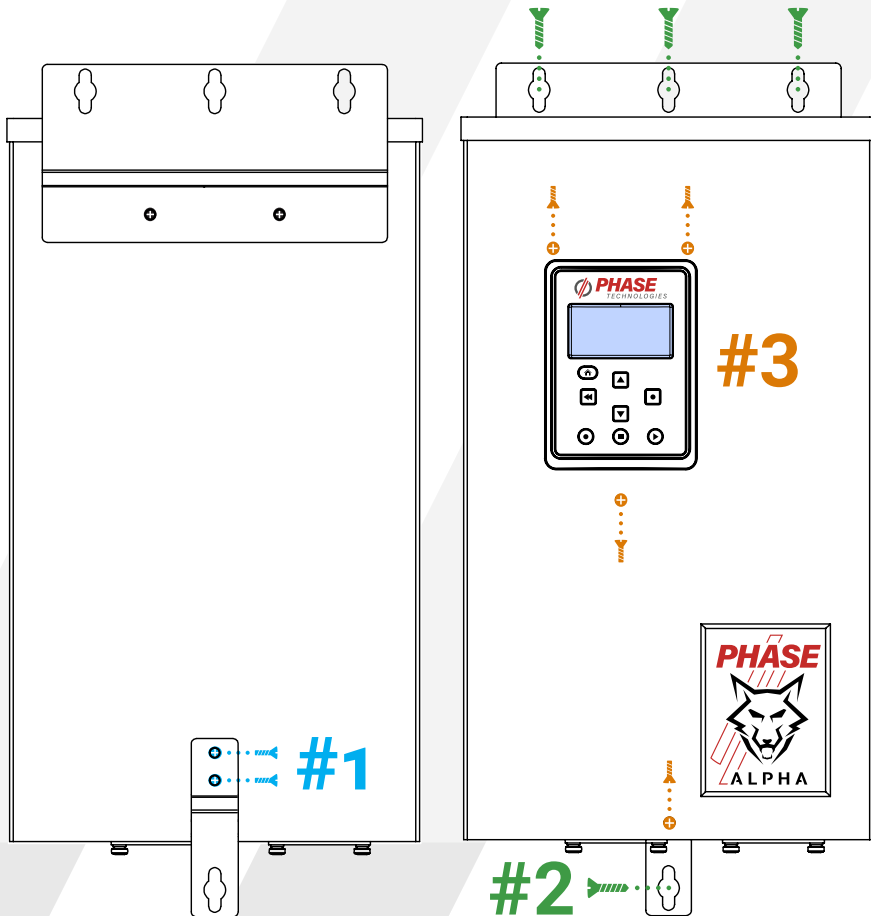
Pressure Transducer



Cord Grip



Mounting Tab w/ Screws



Mounting the Alpha Drive

#1 Attach the Mounting Tab

- ▶ Locate the two small holes near the bottom rear of the enclosure.
- ▶ Secure the mounting tab using the provided screws.

#2 Mount to the Wall

- ▶ Allow for drive ventilation by maintaining at least 6" (152 mm) of clearance below the drive and 3" (76 mm) of clearance on all other sides.

Wiring Connections

#3 Remove the Front Cover

- ▶ Unscrew the front screws and carefully pull the cover up and away from the enclosure.

#4 Connect Output to Motor

- ▶ Connect motor leads to the LOAD terminal block (U, V, W). See wiring diagram for single-phase and three-phase wiring setup.

#5 Connect Input Power

- ▶ Connect incoming power leads to the LINE terminal block. (L1 and L2)

⚠ WARNING - High voltage hazard. Risk of serious injury or death. Installation must be performed by a qualified, licensed electrician. Follow all instructions and safety warnings.

Installing the Pressure Transducer

#6 Connect Grounds

- ▶ Secure the input and output ground wires to their respective terminals marked with the ground symbol.
- ▶ Ensure ground resistance is 25 ohms or less to earth ground.

#7 Install the Transducer

- ▶ Thread the transducer into a 1/4" NPT non-metallic fitting.
- ▶ Route the wire back to the VFD through the cord grip and cut to length.

#8 Connect Transducer Wires to Terminals

- ▶ Black Wire → **I1-**
- ▶ White/Red Wire → **I1+**

⚠ WARNINGS

- ▶ **IMPORTANT** - Use crimped or soldered connections only
- ▶ **DO NOT** use wire nuts. Poor connections can cause faults or damage.
- ▶ **DO NOT** coil excess wire.
- ▶ **DO NOT** connect or ground the shielding wire.
- ▶ **Keep** transducer wires separate from motor leads. If crossing is required, do so at a 90° angle only.
- ▶ **DO NOT** over-tighten the cord grip.

Powering on the Alpha Drive

#9 Replace the Front Cover

- ▶ Replace the cover securely.

#10 Energize

- ▶ Energize the circuit to power on the Alpha Drive.

#11 Startup Options

- ▶ To skip setup, press the HOME button.
- ▶ To use the Perfect Pressure Wizard, press ENTER when prompted and go through the setup wizard.
- ▶ To reset the drive to factory defaults, press and hold BACK + ENTER for 3 seconds.

Analog Constant Pressure Setup

A. Motor Phase

Single-Phase | Three-Phase

B. Input Voltage

120 V | 240 V

* If running 3-Phase Motor proceed to Max Analog Sensor Range

C. Motor Type

2-Wire Motor | 3-Wire Motor

D. Motor Manufacturer

Franklin | Other | A.Y. McDonald
Grundfos | Pentek

E. Max Analog Sensor Range

This should be set to the maximum value of the 4-20 mA transducer being used for analog control i.e. if the transducer has a range of 0-150 PSI, this parameter should be set to 150 PSI. (Factory Default = 150 PSI. Use the arrow keys to change if desired. Press ENTER to proceed.)

F. Analog Setpoint 1

This value determines the pressure you want to maintain. (Factory Default = 50 PSI. Use the arrow keys to change if desired. Press ENTER to proceed.)

G. Submersible Pump

This parameter sets the ramp profile for a submersible pump. "YES" = Ramps to 30 Hz in the first second to prevent excessive wear on the thrust bearing. "NO" = The frequency will increase in a linear fashion from zero to max frequency. (Use the arrow keys to toggle between the two settings. Press ENTER to proceed.)

H. Disable Manual Mode

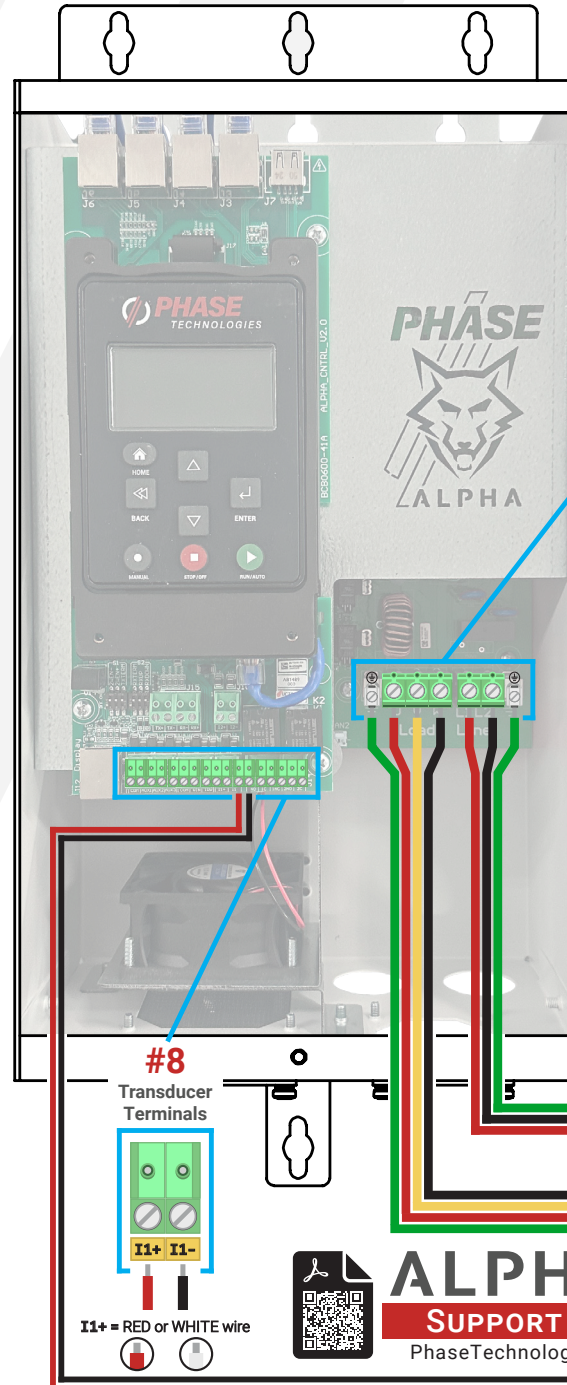
"YES" = disables the MANUAL button run mode.
"NO" = allows manual on/off operation at max frequency.

I. Overcurrent Limit

Set motor overload protection (service factor amp rating for the motor) using the arrows. Press ENTER to proceed. Press the RUN/AUTO button to start the pump.

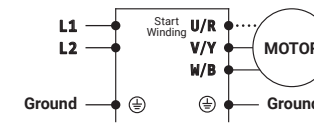
Additional Notes

- ▶ Motor rotation must be verified upon completion of setup.
- ▶ If the VFD is not going to sleep, first check for leaks. If no leaks are present, increase the "Shutoff Frequency" under "Constant Pressure Parameters."
- ▶ Set pressure tank PSI to 70% of VFD PSI Setpoint.
- ▶ Any settings can be modified after the initial setup. Refer to the product manual for full parameter list.

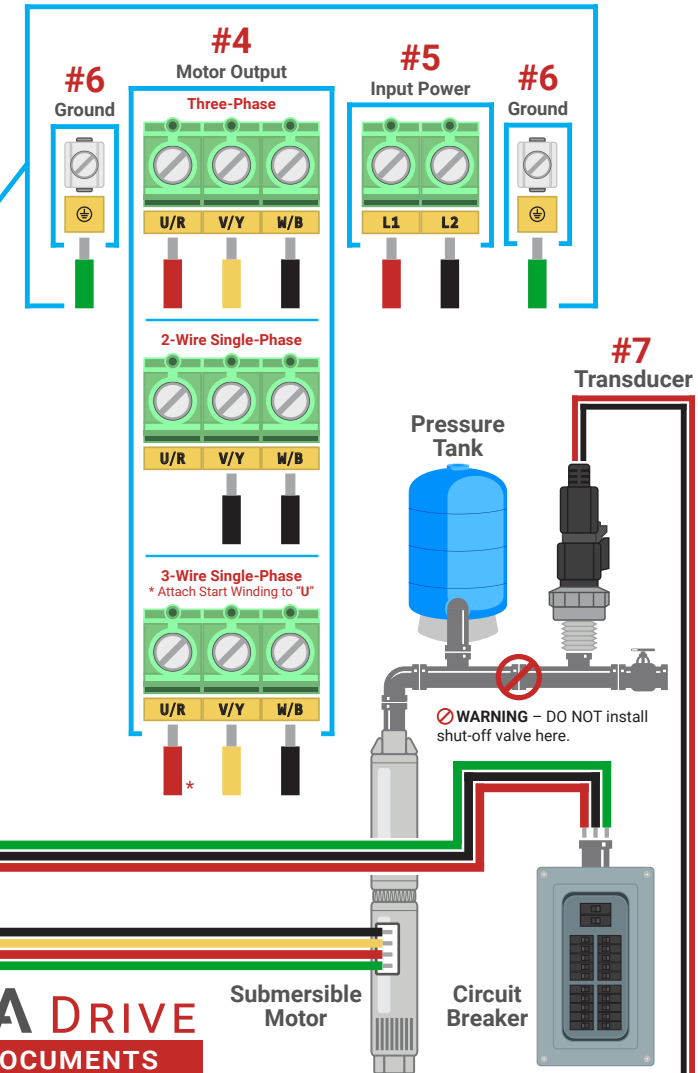
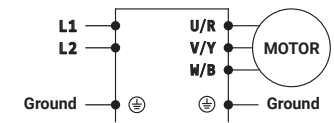


Wiring Diagrams

Single-Phase Motor



Three-Phase Motor



ALPHA DRIVE
SUPPORT DOCUMENTS

PhaseTechnologies.com/Support/AD



I1+ I1-
I1+ = RED or WHITE wire