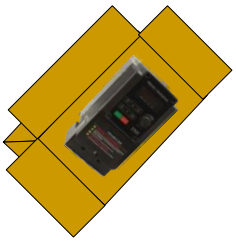
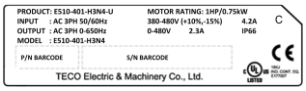


OUT of the Box Startup – Overview

This document is intended as a quick start guide to get familiarity with keypad navigation, changing parameters, and setting the E510 NEMA 1 drive up for external start/stop and key pad speed control. Please note this document is not a substitute for the E510 user Manual and it is important that you reference the E510 user manual before proceeding.

STEP 1 Check Nameplate and Connect Input / Output Wiring -

Check the inverter nameplate to insure that the information agrees with your order. Also insure that the power available is rated appropriately for the drive being used.

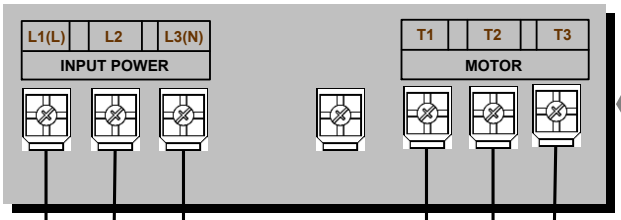


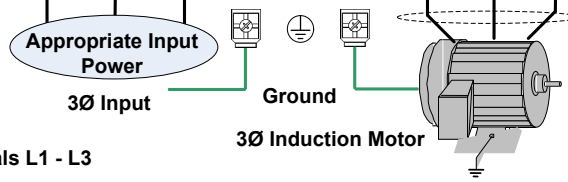
Secure the Inverter in a suitable location

Remove protective covers to access the power terminal blocks. (Refer to the E510 User Manual for detailed instructions.)

DANGER

Do not apply power until all connections are correct and secure, and all protective covers are in place.





To reverse direction of motor rotation swap any two leads

Note: For 1Ø Input use terminals L1 - L3

STEP 2 Power-up the Inverter, check the Digital Operator

In this step, after the initial power-up you will become familiar with the indications and functions of the Digital Operator.

Forward Direction Status Indicator

LED Display

Reverse Direction Status Indicator

8 button Membrane Keypad

Run Key

Frequency Potentiometer

Stop Key

KEYS (8) Description

RUN: RUN Inverter in Local Mode
STOP: STOP Inverter
FWD/REV: Switch between Forward and Reverse operation
DSP/FUN: Switches between available displays
</RESET: "<" Left Shift: Used to change parameters or values, RESET alarms and faults
READ/ENTER: Used to display the preset value of parameters and to save changes

▲:Parameters navigation Up, Increase parameters or reference value
▼:Parameters navigation Down, Decrease parameters or reference value

E510 Control Settings (Factory Default)

RUN/STOP Control: Keypad (RUN / STOP key)

Press RUN to start the drive or STOP to stop the drive.

See **step 5.** to change to RUN/STOP to external 3-wire push buttons. **SPEED Control: Potentiometer (5.00 Hz to 60.00 Hz)**

See **step 6**. to change to Keypad ▼ & ▲ arrow keys.

Blinking

Changing Speed Reference Press READ/ENT button and use ▲ ▼to change reference.

Press READ/ENT button to save

STEP 3 Check Motor Rotation

This test is to be performed solely from the inverter keypad. Apply power to the inverter after all the electrical connections have been made and protective covers have been re-attached. At this point, **DO NOT RUN THE MOTOR**, the keypad should display as shown below in Fig. 1a and the speed reference **5.00 Hz** should be blinking.

Important: Motor rotation and direction only applies to standard AC motors with a base frequency of 60Hz. For 50Hz or other frequency AC motors please set V/F pattern in group 01 before running the motor.

DANGER

Blinking

Fig. 1a

Solid

Fig. 1b

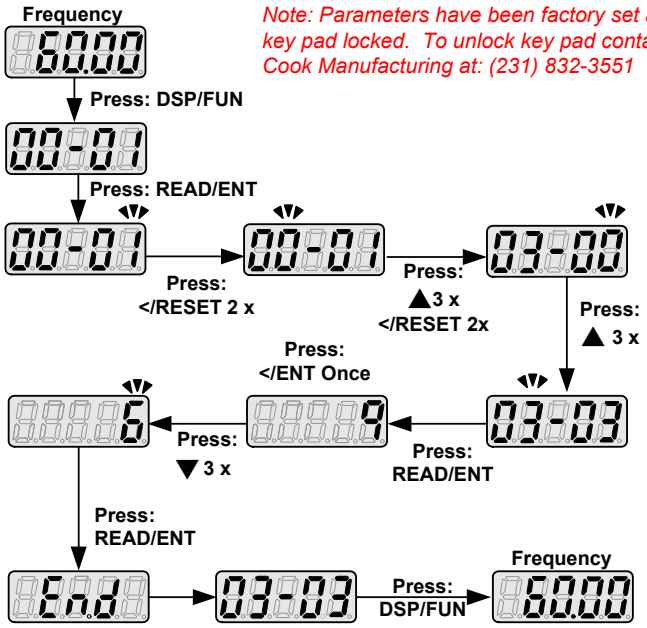
Next press the **RUN** key. The motor should now be operating at low speed running in forward (clockwise) direction. The keypad should display as shown above in Fig. 1b and the speed reference 5.00 Hz should be solid. Next press **STOP** key to stop the motor.

If the motor rotation is incorrect, power down the inverter. After the power has been turned OFF, wait at least ten minutes until the charge indicator extinguishes completely before touching any wiring, circuit boards or components.

Using Safety precaution, and referring to step 1 exchange any two of the three output leads to the motor (T1, T2 and T3). After the wiring change, repeat this step and recheck motor direction.

STEP 4 How to Change Parameters (Example 03-03 change to 6)

Note: Parameters have been factory set and key pad locked. To unlock key pad contact: Cook Manufacturing at: (231) 832-3551



STEP 5 Using Remote Run/Stop

Default Setting: The E510 by default uses the keypad to run and stop, follow instructions below to change to a remote 3 wire remote start/stop.

Instructions to change to remote run/stop:

- Power down the drive, wait 10 min.
- Remove the protective covers (See E510 Manual) and make the connections as shown below in Fig. 2a.
- Verify that all connections are secure, replace covers and power-up the drive.

Note: This disables the key pad start button. Key pad stop button will still turn off the motor. Only (1) method of starting the motor can be enabled a the same time.

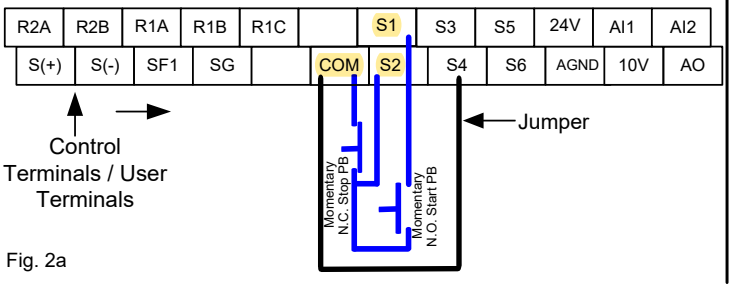


Fig. 2a

STEP 6 Using ▲ & ▼ arrow keys to change speed

Default Setting: The E510 by default uses the potentiometer to change the speed, follow instructions below to change to using the ▲ & ▼ arrow keys to change the speed.

Instructions to change to remote run/stop:

-Power down the drive, wait 10 min.
-Remove the protective covers (See E510 Manual) and install a jumper wire between COM ans S5 as shown below in Fig. 2b.
-Verify that all connections are secure, replace covers and power-up the drive.

Changing Speed Reference:

Press READ/ENT button and use ▲ & ▼ arrow keys to change speed.

Press READ/ENT button to save.

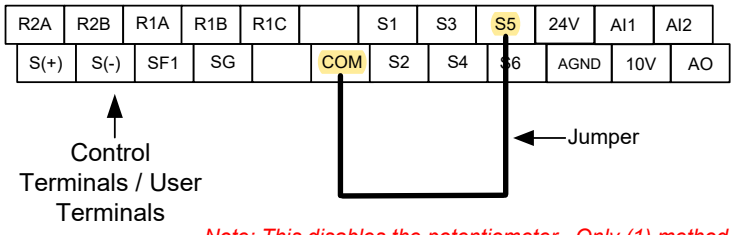


Fig. 2b

Note: This disables the potentiometer. Only (1) method of changing speed can be enabled at the same time.

STEP 7 Factory Set Parameters for Cook Manufacturing

00-00 Set at 0 =V/F Mode
00-02 Set at 0 =Key Pad Start/Stop (Main Start/Stop Method)
00-03 Set at 1 =External (Alternative Start/Stop Method - Active when S4 Jumper Installed)
00-04 Set at 2 =3-Wire Control (External Start/Stop Method - Active when S4 Jumper Installed)
00-05 Set at 1 =Potentiometer Speed Control (Main Speed Control Method)
00-06 Set at 0 =Key Pad Speed Control (Alternative Speed Control Method - Active when S5 Jumper Installed)
00-13 Set at 5.0Hz =Minimum speed
00-14 Set at 20 Seconds =Accel Time
00-15 Set at 20 Seconds =Decel Time

Note: Parameters have been factory set and key pad locked. To unlock key pad contact: Cook Manufacturing at: (231) 832-3551

02-00 Set at supplied electric motor's No Load Current
02-01 Set at supplied electric motor's Full Load Current
02-03 Set at supplied electric motor's Rated RPM

03-03 Set at 12 =S4 Input Function = Main/Alternative Start/Stop Source (S4 Jumper Enables External Start/Stop Method)
03-04 Set at 13 =S5 Input Function = Main/Alternative Speed Control (S5 Jumper Enables Key Pad Buttons Speed Control)

11-01 Set at 10 =Carrier Frequency st at 10Khz

For the complete E510 parameter listing and descriptions, refer to the E510 Instruction manual on our website
www.tecowestinghouse.com