



L510s OUT of the Box Startup – Overview



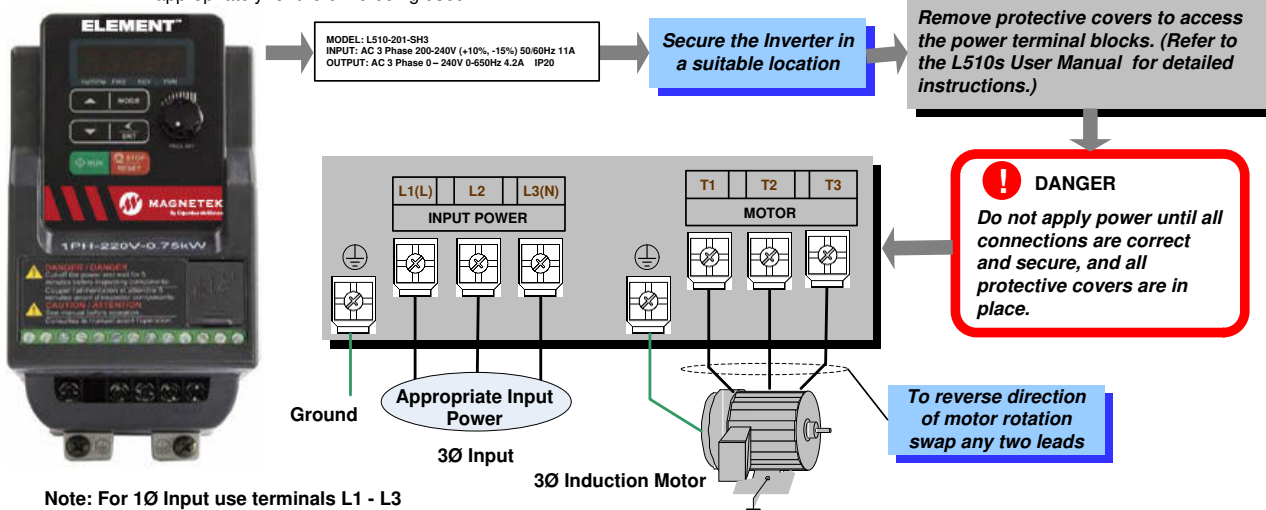
MAGNETEK

By Columbus McKinnon

This document is intended as a quick start guide to get familiarity with keypad navigation, changing parameters, and setting the L510s drive up for external start/stop and external potentiometer signal. Please note this document is not a substitute for the L510s User Manual and it is important that you reference the L510s user manual before proceeding.

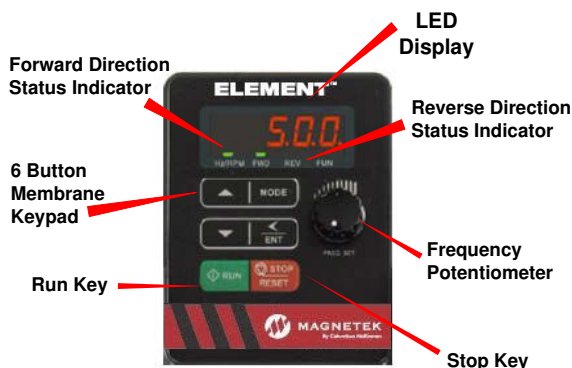
STEP 1 Check Nameplate and Connect Input / Output Wiring -

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.



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.



Function keys (6) Description:

RUN: RUN Inverter in Local Mode

STOP / RESET: STOP Inverter, RESET alarms and faults

▲:Parameters navigation Up, Increase parameters or reference value

▼:Parameters navigation Down, decrease parameters or reference value

MODE: Switches between available displays

</ENT: "<" Left Shift: Used to change parameters or values,
 ENTER: display the preset value of parameters and to

L510s Control Settings (Factory Default)

RUN Control: External Run/Stop control

STOP Control: Keypad (STOP/RESET key)

Press External Run/Stop to START or STOP the drive.
 (The Stop key of keypad also can STOP the drive)

See **step 5.** to change to RUN/STOP to external switch/contact.

See **step 6.** to change to external potentiometer control.



⚠ Caution : When the electrolytic capacitor is stored when no power input, its characteristics are liable to deteriorate if the ambient temperature is too high. Therefore, do not store the inverter for a long time without power input. If the inverter is stored for a long time, in order to make the inverter operate normally, capacitor activation is required. For details, please refer to Chapter 3.2.4 of the manual.

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.

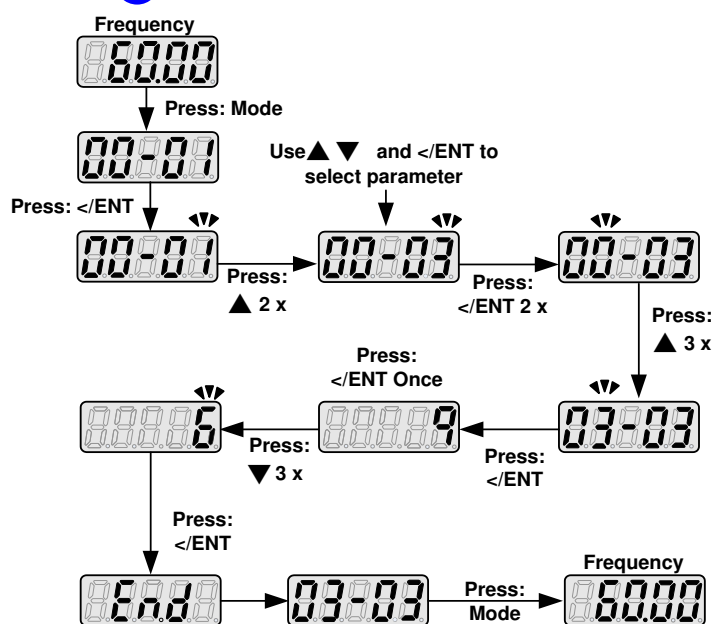


Next press the **RUN** key. The motor should now be operating at low speed running in forward (clockwise) direction. The keypad should display as shown above in Fig. 1b and the speed reference 5.00 Hz should be solid. Next press **STOP** key to stop the motor.

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 completely extinguishes 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)



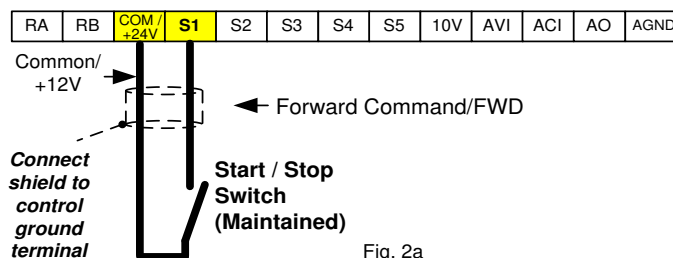
STEP 5 Using External Run/Stop

Default Setting: The L510s by default uses the External Run/Stop to run and stop. follow instructions below to change to External Run/Stop.

Instructions to change to External Run /Stop :

- Power down the drive, wait 10 mins.
- Remove the protective covers (See L510s User Manual) and make the connections as shown below in Fig. 2a.
- Verify that all connections are secure, replace covers and power-up the drive.

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



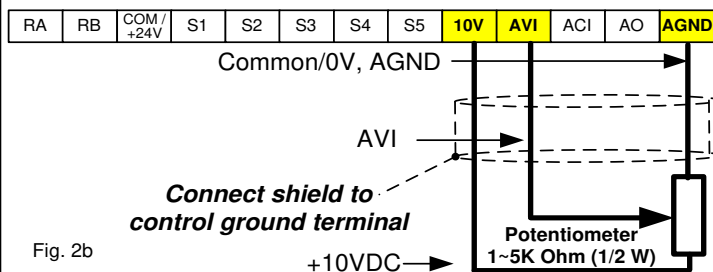
STEP 6 Using an external Analog Input for speed control

Default Setting: The L510s by default uses the External Analog Input for frequency reference, follow instructions below to use a External Analog Input reference.

Instructions to change to use External Analog Input reference:

- Power down the drive, wait 10 mins.
 - Remove the protective covers (See L510s User Manual) and make the connections as shown below in Fig. 2b.
 - Verify that all connections are secure, replace covers and power-up the drive.
- Do not apply power until all connections are correct and secure, and all protective covers are in place.***

After power-up set parameter **00-05=2** (Speed Reference from Control Terminals).



STEP 7 Frequently Used Parameters

Motor Nameplate Data (Parameter 02-01)

The motor rated current is set at the factory based on the inverter model. Enter the motor rated current from the motor nameplate if it does not match the value shown in parameter 02-01.

Setting range: Varies by model.

Using Keypad Potentiometer (Parameter 00-05) *Default: 00-05=1*

To use the potentiometer on the keypad set parameter 00-05 to 1.

Acceleration and Deceleration Time (Parameter 00-14, 00-15) Default: 0-14=3; 00-15=3

Acceleration and Deceleration times directly control the system dynamic response. In general, the longer the acceleration and deceleration time, the slower the system response, and the shorter time, the faster the response. An excessive amount of time can result in sluggish system performance while too short of a time may result in system instability.

The default values suggested normally result in good system performance for the majority of general purpose applications. If the values need to be adjusted, caution should be exercised, and the changes should be in small increments to avoid system instability.

00-14 Acceleration time 1

00-15 Deceleration time 1

These parameters set the acceleration and deceleration times of the output frequency from 0 to maximum frequency and from maximum frequency to 0.

Factory Reset (Parameter 13-08)

Factory Reset (Parameter 13-08)
To reset all parameters back to factory default, set parameter 13-08 depend on your necessary.

