TECO L510 Inverter

Quick Start Guide

This guide is to assist you in installing and running the inverter and verify that it is functioning correctly for it's main and basic features.

For detailed information and if there are any doubts please refer to the instruction manual.

Step 1	Supply & Motor connection

1) Ensure that the Inverter & the motor have the correct KW power and voltage ratings.
   Motor full load amps must not exceed the Inverter rating.

2) Ensure that the supply & Motor cables are connected correctly prior to power up.

3) For single phase supply, use L1(**L**) & L3(**N**) on units which have 3 supply terminals.

4) Connect motor cable to terminals T1, T2 &T3.
   (Swap two leads if motor runs in reverse direction).

5) Connect supply Earth and the motor Earth to the drive Earth terminal.

Note:-

I) For detailed installation and wiring refer to the Instruction manual.

Step 2	Apply power to the drive

Apply power to the drive, the display will briefly show the supply voltage
220V followed by | **5.00** | flashing.

This is the default (factory set) frequency.
If the unit has been used previously then it will show the last frequency
programmed.

Step 3	Test run from keypad

Press **RUN** KEY to run.

The frequency will ramp up to **5.0** Hz **or** the user **pre-set** frequency and
according to the default acceleration ramp time.

Press **STOP** key to stop.
The frequency will ramp down to zero according to the default decel ramp
time.

Step 4	To alter frequency from keypad. (Default setting).

Use the Arrow keys ▲ ▼ and < / **ENT**

To alter the digits to the required frequency.
eg. 50.0 HZ then use **RUN** and **STOP** keys to start / stop.

Remote speed reference and Remote run

Step 1	Remote mode wiring. Speed reference .

1) Ensure that you have carried out installation & wiring requirements as per previous page before you proceed.

2) For remote potentiometer OR remote 2-10V / 0-10V dc signal use the following terminals:

    Terminal 10V.   The supply provided for use with the potentiometer.
    Terminal AVI.   Potentiometer wiper connection.
    Terminal AGND.   0Vdc.

    For 0-20mA / 4-20mA signals use the following terminals:
    Terminal ACI.
    Terminal AGND. 0Vdc.

Step 2	Remote mode Run

1) Connect remote start switch if required according to diagram in the instruction manual.

    Terminals +24V & S1 (Forward run)
    Terminals +24V & S2 (Reverse run)

Step 3	Check/ verify and alter parameters

Check / verify and alter parameters for remote start & remote frequency as necessary before you proceed. Parameters 00-02 & 00-05

See quick start parameter list & How to alter parameters.

Step 4	RUN using remote speed reference. (Potentiometer 0-10vdc or 4 - 20ma)

1) **To run.** Activate the remote run switch connected to terminals S1 (FWD) or S2 (REV) as required. Parameter 00-02 = 1

The frequency will ramp up to the **frequency** set by one of the following selections according to the set acceleration ramp time:-

- Potentiometer on the keypad   Parameter 00-05 = 1
- External voltage input AVI.   Parameter 00-05 = 2
- External current input ACI.   Parameter 00-05 = 3

2) **To Stop.** De-activate the remote run switch.
   The frequency will ramp down to zero and according to the decel ramp time.

How to alter parameters using the keypad

1) To alter parameters:- Press the **MODE** key,
   until the first parameter 00-00 is displayed.

2) Then use the arrow keys **</ENT** ▲ ▼ to select the parameter required then
   Press and hold the **</ENT** until the preset value is displayed

3) Use the ▲ ▼ and **</ENT** keys to alter the setting of the parameters as per **basic quick start parameter list**.

   Note:- For full parameter list refer to the instruction manual.

4) To save each parameter change, press and hold the **</ENT** until
   the word **END** is displayed.

5) Use **</ENT** ▲ ▼ key to select the next parameter to alter and
   follow steps 2 to 4 until all changes are complete.

6) Pressing the **MODE** key repeatedly will alternate the display
   between the **preset frequency** (flashing display) and the last parameter
   accessed or other selectable displays 0 to 7 when selected by parameter
   12-00 according to the table below.

【0】:Disable display   【1】:Output Current
【2】:Output Voltage   【3】:DC voltage
【4】:Temperature   【5】:PID feedback
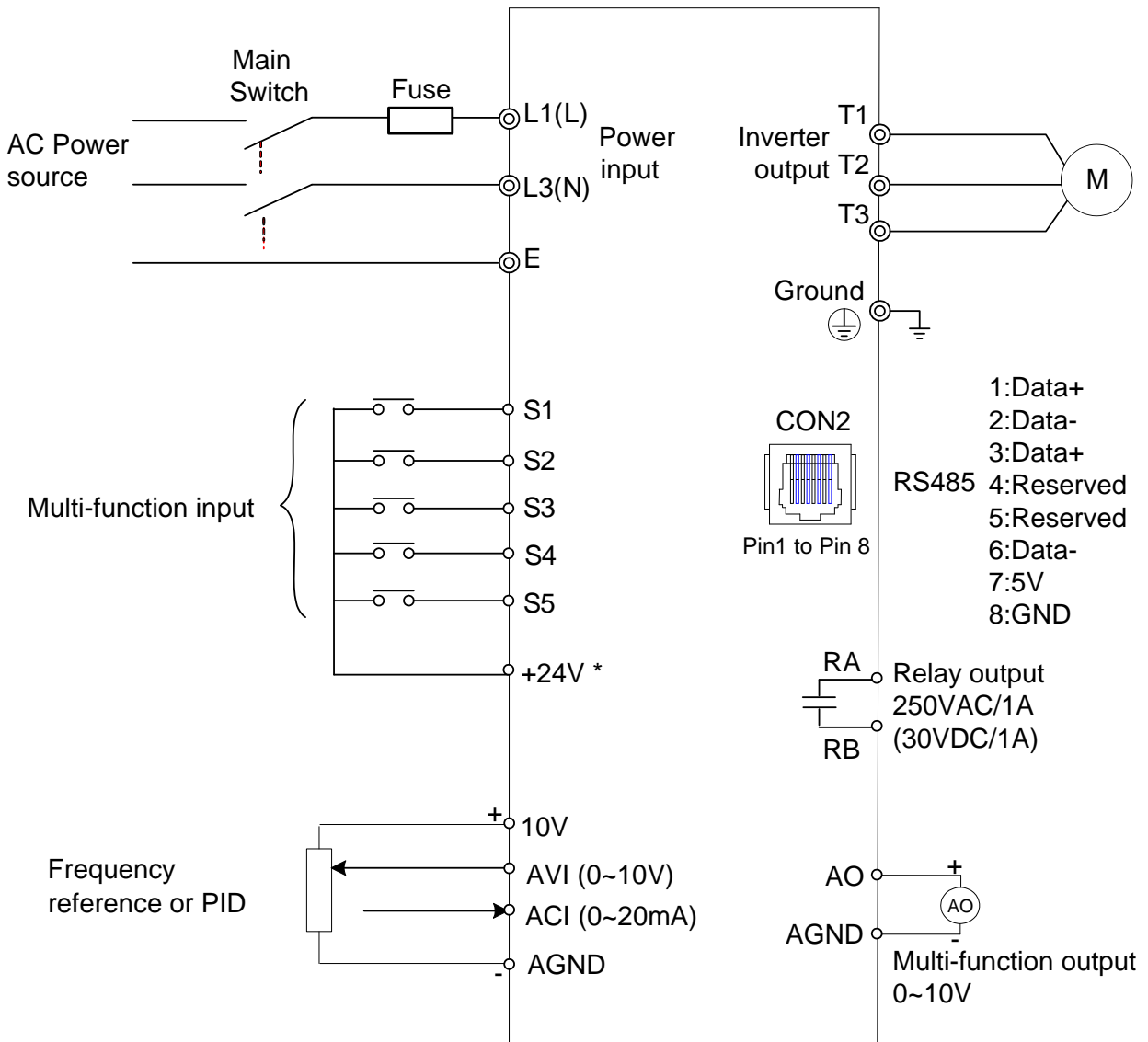【6】:AVI   【7】:ACI

Basic Quick Start Parameter List

Parameter	Default	Range	Note
00-14	10.0	0.1~3600.0	Acceleration time in Secs
00-15	10.0	0.1~3600.0	Deceleration time in Secs
00-04	0	0-2	0: Forward/Stop-Reverse/Stop 1: Run/Stop-Reverse/Forward 2: 3-Wire Control Mode-Run/Stop
00-12	50/60Hz	0.01~650.00	Max frequency limit.
00-13	0.0	0.00~649.00	Min frequency limit
00-02	0	0-2	Start mode:- 0: Keypad 1: Remote 2: Communication
00-05	0	0-6	0: Keypad 1: Potentiometer on keypad 2: External AVI analogue signal 3: External ACI analogue signal 4: External up/down frequency control 5: Control by Communication method 6: PID output
07-09	0	0-1	Stop method:- 0: Decel to stop 1: Coast to stop
02-01	**A	**A	Motor overload protection
13-08	00000		Set to factory setting. 1150: 50HZ system. 1160: 60HZ system.

Note:- For Full Parameter List see the Instruction manual

Standard wiring
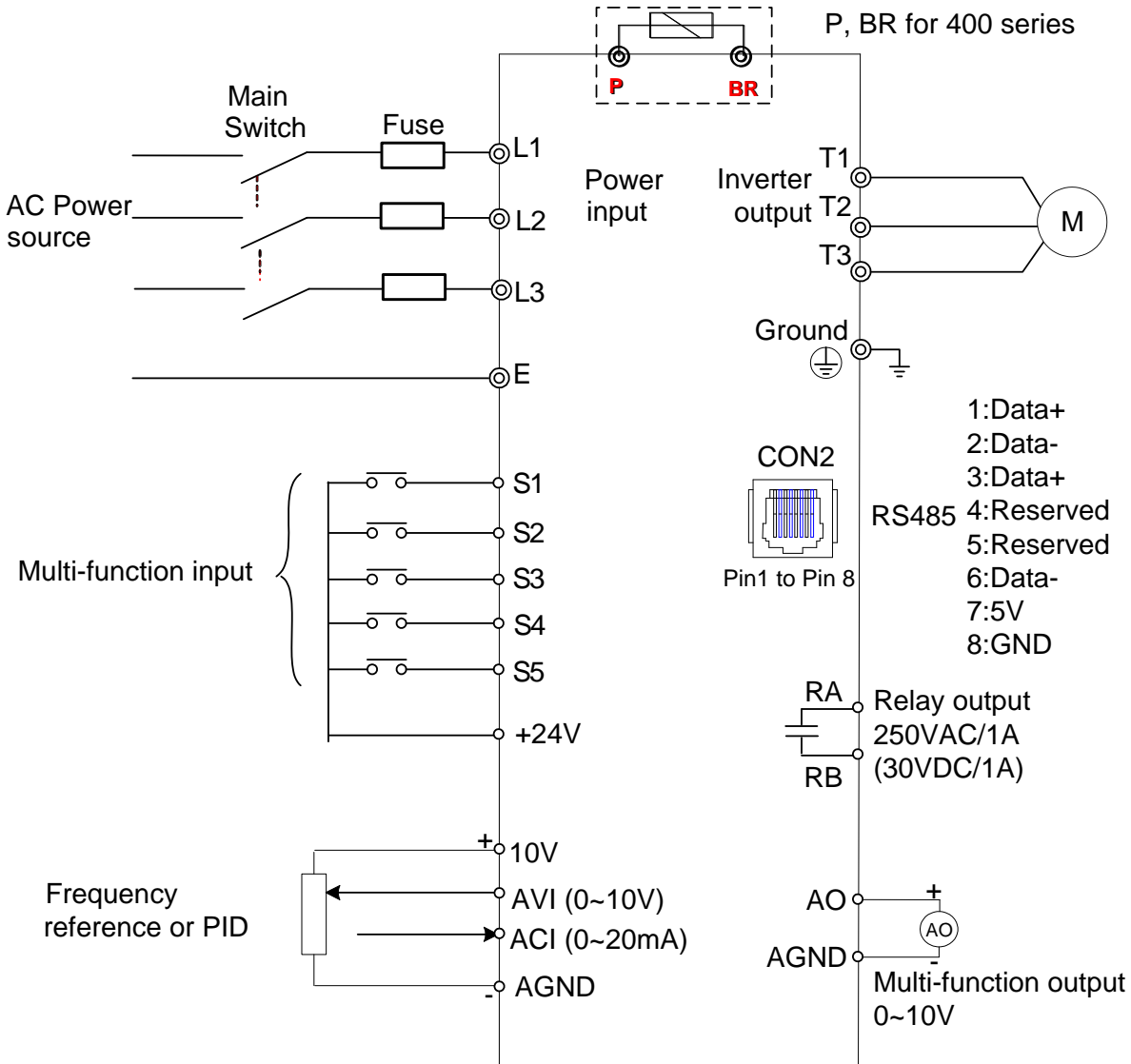
Single phase (PNP input)

Model:
200V : L510-2P2-H1F-P A / L510-2P5-H1F-P A / L510-201-H1F-P A
**   L510-202-H1F-P A / L510-203-H1F-P A**

＊ L510 models without suffix "A" have 12V supply.

400V Three phase (PNP input)

P, BR for 400 series

P **BR**

Main Switch

Fuse

AC Power source

L1
L2
L3
E

Power input

Inverter output

T1
T2
T3

M

Ground

CON2

Pin1 to Pin 8

RS485

1:Data+
2:Data-
3:Data+
4:Reserved
5:Reserved
6:Data-
7:5V
8:GND

Multi-function input

S1
S2
S3
S4
S5

+24V

RA

RB

Relay output
250VAC/1A
(30VDC/1A)

Frequency reference or PID

+ 10V
AVI (0~10V)
ACI (0~20mA)
AGND

AO
AGND

AO

Multi-function output
0~10V

Model:
400V : L510-401-H3F-P A / L510-402-H3F-P A / L510-403-H3F-P A