

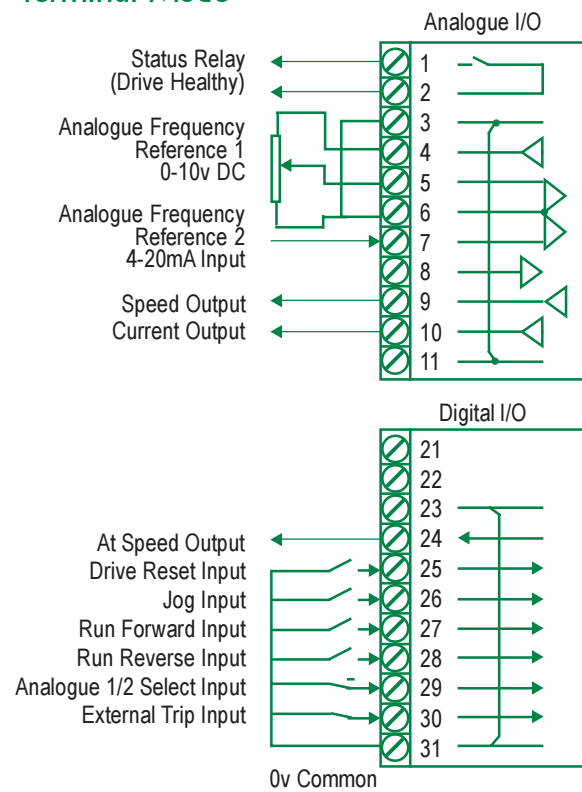
### Status Messages

DISPLAY	REASON
rdy	Drive waiting for Start signal
run	Drive is running
inh	Drive disabled/inhibited or coasting to stop
dEC	STOP signal applied/drive decelerating
trip	Drive tripped/reason displayed in UD
0.10	Parameter 0.10. UD shows motor speed in rpm

### Trip Codes

DISPLAY	REASON
UV	Undervoltage
OV	Overvoltage
0 IAC	Instantaneous Overcurrent
Et	External Trip
PS	Internal Power Supply fault
ItAC	Motor Overload
th	Motor Overtemp or Thermistor circuit open
Ph	Loss of AC supply phase
EEF	EEPROM error
It.br	Excessive Dynamic Braking

### Control Wiring for Macro 1 in Terminal Mode



### Easy Mode Parameters: Macro 1

Par#	Parameter Name	Default
0.00	Configuration & Saving	0
0.01	Minimum Frequency (Hz)	0
0.02	Maximum Frequency (Hz)	50 (60†)
0.03	Acceleration Time (s/100Hz)	5
0.04	Deceleration Time (s/100Hz)	10
0.05	Speed Ref Selector (0-5)	0 (4†)
0.06	Current Limit (%FLC)	150
0.07	Voltage Mode (0-3)	Fd
0.08	Voltage Boost (%V)	3
0.09	V/F-Standard(0), Dynamic(1)	0
**0.10	**Estimated Motor Speed (rpm)	M
0.31	Macro Number	1
0.32	Serial Comms Mode	1=AnSI 4
0.33	Drive Rated Current (A)	M
0.34	User Security Code	149
0.35	Keypad Reference	M
0.36	Baud rate	4800
0.37	Serial Address (0.0-9.9)	1.1
0.38	Power up Parameter (0-50)	0.10
0.39	Spinning Motor	0
0.40	Autotune (1 to initiate)	0
0.41	Switching Frequency (kHz)	3
0.42	No. of Motor Poles (2-24)	4 pole
0.43	Rated Motor Power Factor	0.92
0.44	Rated Motor Voltage (0-480V)	400V (460V†)
0.45	Rated Motor FL Speed (0-30k)	0
0.46	Rated Motor Current (A)	Max Drive Rating
0.47	Rated Motor Frequency (Hz)	50 (60†)
0.48	Software Build No.	M
0.49	Security Status	M
0.50	Software Version	M



0451-0013

† USA (60Hz) Default

\*\* Default Display Parameter

### Quick Start PowerUp

September 1998

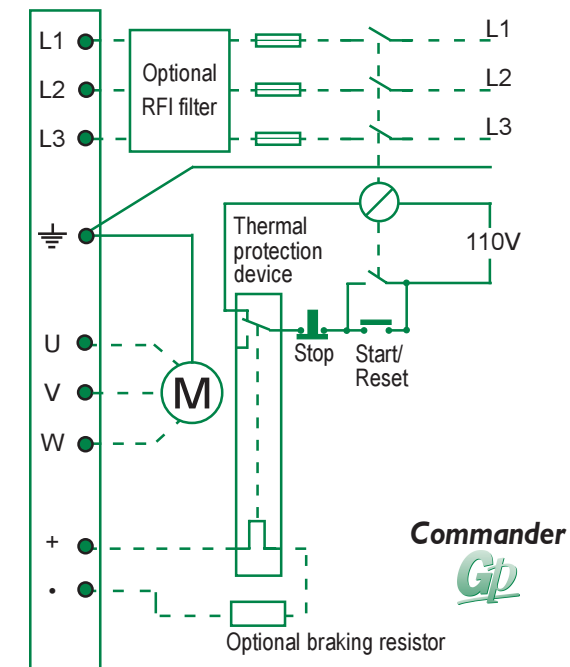
Quick Instructions for initial start-up of

### Commander Gp



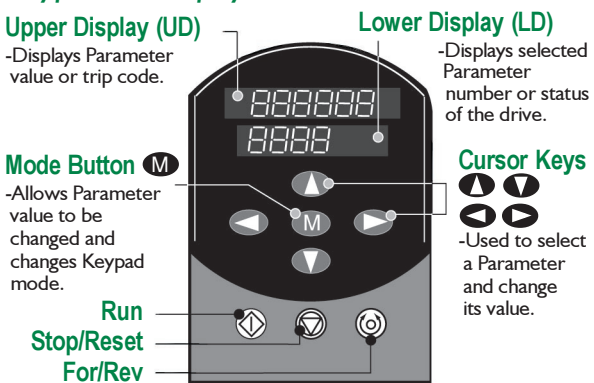
CONTROL TECHNIQUES

### Power Wiring



Commander Gp

## Keypad & Display



**Keypad Modes** (to move between modes, press **M** once)

**Status** - Drive is in Status mode at Power-up or after 8 (eight) seconds of no key pressing.

**Parameter-Edit** Will display selected Parameter and its value.  
- Allows Parameter value to be changed.

**WARNING:** Improper procedures can result in personal injury or equipment damage. Use this Quick Start Guide only if you are familiar with standard safety precautions common to electronic drives. See Commander User Guide for details.

## Voltage Boost

The Commander GP Drive is designed to operate in V/f or Open Loop Vector Modes only. To select the voltage mode required set parameter 0.07 to one of the options listed in the table below.

Setting	Function	
<b>Vector Modes</b>		
Ur_S	0	Motor stator resistance is measured each time the Drive is started.
Ur_I	1	Motor stator resistance is measured at power-up if the EXTERNAL TRIP contact is closed and no other trip condition exists.
Ur	2	Motor stator resistance is not measured (use this mode only after having used Ur_S or Ur_I to measure the stator resistance).
<b>Fixed boost mode</b>		
Fd	3	Fixed voltage boost that can be manually adjusted by parameter 0.08 Boost voltage.

Holding the **▲** or **▼** key down causes the Parameter/Value to scroll quickly. Press **▶** or **◀** key down to quickly move from units to tens, hundreds, thousands and vice versa

## Easy Mode Start-up

Keypad: Add Drive Enable switch or link terminals 30-31.  
Terminal Strip: Wire terminals as per Control Wiring diagram. Connect motor leads, incoming power leads, and APPLY POWER. The drive may display 'Et' or 'th' since EASY mode has not yet been entered. To verify motor data, see "Auto Tune" section.

STEP	DESCRIPTION	DISPLAY
<b>SELECT 'EASY MODE' MACRO</b>	Go to Par#0.00 Enter 2001 Press M then Re-set	LD= 0.00 UD= 2001
<b>*SPEED CONTROL FROM KEYPAD</b>	Go to Par#0.05 Change Par Value Press M then Re-set	LD= 0.05 UD= 4
<b>SAVE NEW PARAMETER VALUES</b>	Go to Par#0.00 Enter 1000	LD= 0.00 UD= 1000
<b>DISPLAY MOTOR SPEED</b>	Go to Par#0.10 Drive Status	LD= 0.10 LD= rd4

Keypad Start-up: **PRESS TO START DRIVE!**

Change Speed by **▲ ▼**

Terminal Strip: **CLOSE RUN SWITCH TO START DRIVE!**

For USA ensure Par#0.05 is set to 0

\* Use for Keypad Start-up only.

## Auto Tune Motor Data

Par #	DESCRIPTION	DEFAULT	RANGE
0.42	Motor Poles	4	2 - 24
0.43	Rated Power Factor	0.92	0 - 1.00
0.44	Rated Motor Voltage	400 (460†)V	0 - 480
0.45	Rated Motor Speed	0*	0 - 30K
**0.46	Rated Motor Current	Max of Drive	0-Max of drive
0.47	Rated Motor Frequency	50 (60†)Hz	0 - 1000

\*\* Must set for proper motor protection and performance.  
† USA (60Hz) default  
\*Zero slip compensation applied

## Magnetizing Current Test

Close Drive Enable (terminals 30-31).  
Perform test (motor must be uncoupled from all loads):



**◀▶** until LD= 0.40 Par#0.40 to 1

**M ▲** until UD= 7 (0=default, 1 allows test)

Autotune will then be performed.

When motor stops, Par#0.40 will change to 0.

Press **M** . Par#0.43 will probably have changed from default and new value saved automatically.

## Assessing Special Functions Using Parameter 0.00

To use a special function of Parameter 0.00, enter the display value, then press button.

DISPLAY	FUNCTION
1000	Saves new Parameter values
1233	Restores Parameters to International (50Hz) defaults
1244	Restores Parameters to USA (60Hz) defaults
2000	Lock Security
2001	Easy Mode - macro 1
2002	Motorised Potentiometer - macro 2
2003	Preset Speeds - macro 3
2004	Torque Control - macro 4
2005	PID Control - macro 5
2009	Default Mode - macro 0
	USA defaults
2010	Default Mode - macro 0
	International defaults

## Changing a Parameter Value

Go to selected Parameter (displayed in LD):

- M** Change Keypad from Status to Parameter mode.
- ◀▶** Go to selected Parameter or Value.
- M** Change Keypad from Display to Edit mode.
- ◀▶** Change Parameter value. (Go to selected parameter)
- M** Enter Parameter value and return to Keypad mode. Press Re-set.
- Enter 1000 in 0.00 to save new Parameters.

Holding the **▲** or **▼** key down causes the Parameter/Value to scroll quickly. Press **▶** or **◀** key down to quickly move from units to tens, hundreds, thousands and vice versa