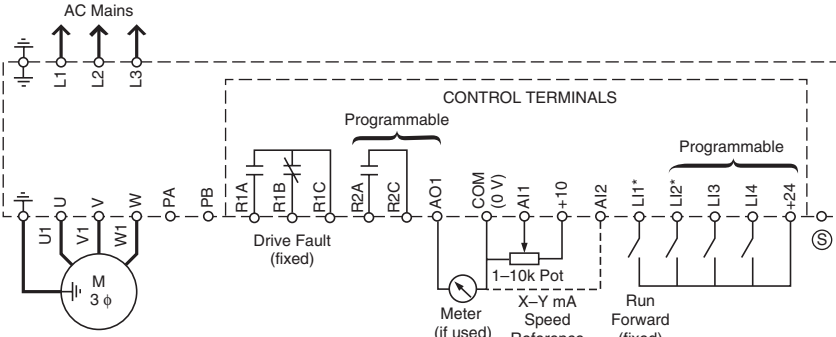


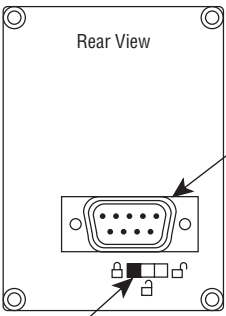
ALTIVAR® 58 TRX Quick Reference Guide

Typical Connections



* When configured for 2-wire control, LI1 is Run Forward (fixed) and LI2 is programmable. When configured for 3-wire control, LI1 is Stop (fixed), LI2 is Run Forward (fixed), and LI3 and LI4 are programmable.

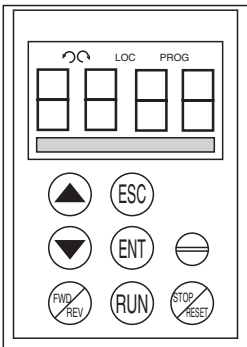
Keypad Characteristics



Connector (9-pin SUB-D male):
 - for direct connection to the drive controller
 - for remote mounting, the keypad display can be connected using a cable provided in kit VW3A58103

Switch for access locking (move all the way to the right for access to all parameters):

- locked position - display mode only, adjustment and configuration parameters are not accessible
- partial lock position - display mode and adjustment parameters are accessible
- total unlock position - display mode, adjustment and configuration parameters are accessible



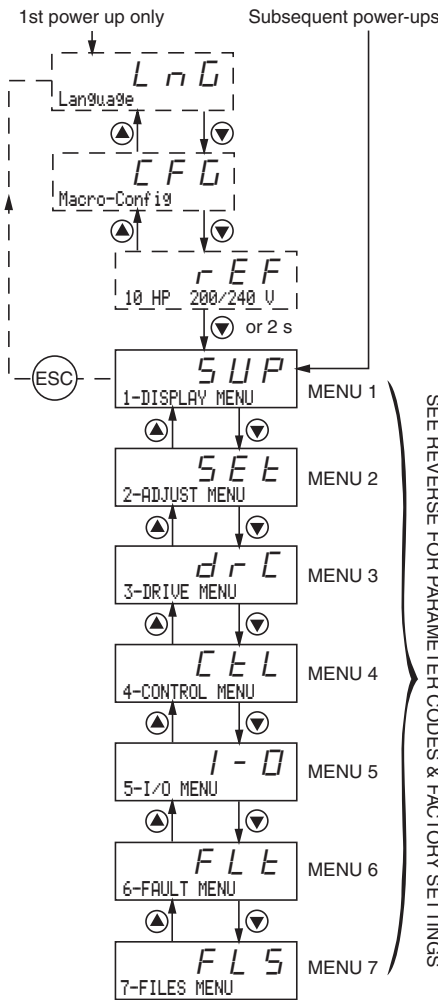
Flashing display: indicates the selected direction of motor rotation.
 Fixed display: indicates the actual direction of motor rotation.

LOC Indicates the keypad display command mode.

PROG Appears in setup and programming mode. Flashing display indicates that a parameter has been modified but not saved.

- Press arrows to move within the menus or among the parameters, and to scroll a numeric value up or down.
- Press ESC to return to the previous menu, or to abandon an adjustment in progress and return to the original value.
- Press ENT to select a menu, or to validate and save a choice or an adjustment parameter.

Menu Structure & Reference

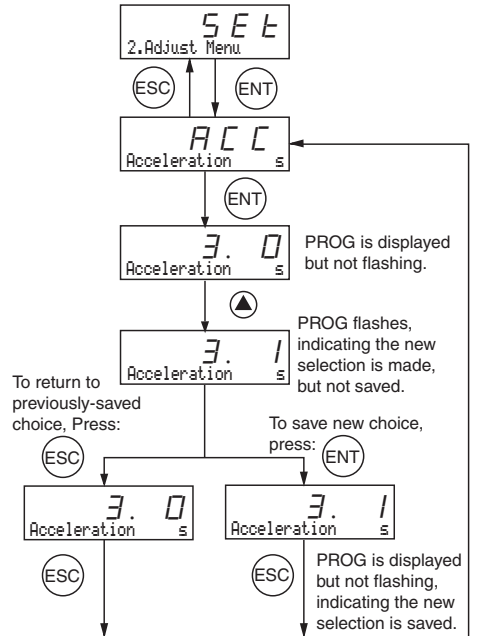


SEE REVERSE FOR PARAMETER CODES & FACTORY SETTINGS

WARNING

UNINTENDED CONFIGURATION CHANGES
 Changing the macro-configurations or installing a new option card reconfigures the drive to factory settings.
Failure to follow this precaution can result in death or serious injury.

Programming Example: Acceleration Time



Macro-Configuration Menu

Macro-Configuration provides initial setup configurations to support ease of setup for three types of applications. These settings can be changed by the user to match individual application requirements.

Drive Controller I/O Assignments^[1]

	Hdg: Material Handling ^[2]	Gen: General Use	VT: Variable Torque
Logic Input LI1	Forward	Forward	Forward
Logic Input LI2	Reverse	Reverse	Reverse
Logic Input LI3	2 Preset speeds	Jog	Auto/manual
Logic Input LI4	4 Preset speeds	Freewheel stop ^[3]	DC injection braking ^[4]
Analog Input AI1	Reference summing	Reference summing	Speed reference 1 ^[4]
Analog Input AI2	Reference summing	Reference summing	Speed reference 2 ^[4]
Analog Output AO1	Motor frequency	Motor frequency	Motor frequency
Relay R1	Drive fault relay	Drive fault relay	Drive fault relay
Relay R2	Not assigned	Not assigned	Not assigned ^[4]

^[1] When the I/O assignments are modified, the Macro-Configuration screen displays "CUS: Customize".
^[2] Factory default setting for 100 hp products and below.
^[3] If the Freewheel Stop/ Run Permissive function is configured, the drive controller will not start the motor unless the logic input is connected to +24 V.
^[4] For 125-500 hp drive controllers, the factory settings are: LI3 = Fault reset; LI4 = Not assigned; AI1 and AI2 = Reference summing; R2 = Drive running.
 Note: LI1, AI1, and R1 assignments are not visible in the 5-I/O menu. LI1 and R1 cannot be reassigned.

Menu 1 – DISPLAY Menu

Parameter	Code
Drive State	rdY
Steady State	rUn
Accelerating	ACC
Decelerating	dEc
In Current Limit	CLi
DC Injection Braking	dCb
Freewheel Stop	nSt
Braking with Ramp Mod	Obr
Frequency Reference	FrH
Output Frequency	rFr
Motor Speed	SPd
Motor Current	LCr
Machine Speed	USP
Output Power	OPr
Mains Voltage	ULn
Motor Thermal	tHr
Drive Thermal	tHd
Last Fault	Lft
Consumption (wH)	APH
Run Time (Hours)	rTn

Menu 2 – ADJUST Menu

Parameter	Code	Factory Setting
Frequency Reference	LFr	
Acceleration	-s ACC	3 s
Deceleration	-s dEC	3 s
Accelerate 2	-s AC2	5 s
Decelerate 2	-s dE2	5 s
Low Speed	-Hz LSP	0 Hz
High Speed	-Hz HSP	50 / 60 Hz
Gain	-% FLG	20%
Stability	-% StA	20%
Thermal Current	-A tTh	0.9 In
DC Injection Time	-s tDc	0.5 s
DC Injection Curr	-A IdC	0.7 ItH
DC Injection Curr	-A SdC	Varies
Jump Freq.	-Hz JF1	0 Hz
Jump Freq. 2	-Hz JF2	0 Hz
Jump Freq. 3	-Hz JF3	0 Hz
LSP Time	-s tLS	no
Machine Speed Coeff.	USC	1
IR Compensation	-% UFr	100%
Slip Comp.	-% SLP	100%
Preset Sp.2	-Hz SP2	10 Hz
Preset Sp.3	-Hz SP3	15 Hz
Preset Sp.4	-Hz SP4	20 Hz
Preset Sp.5	-Hz SP5	25 Hz
Preset Sp.6	-Hz SP6	30 Hz
Preset Sp.7	-Hz SP7	35 Hz
Frequency Lev.Att	-Hz FtD	50 / 60 Hz
Frequency Lev2.Att	-Hz Ft2d	
Torque Limit 2	-% tL2	200%
Current Level Att.	-A CtD	1.36 In
Brake Release Lev	-Hz brL	0 Hz
Brake Release I	-A Ibr	0 A
Brake ReleaseTime	-s brt	0 s
Brake Engage Lev	-Hz bEn	0 Hz
Brake EngageTime	-s bEt	0 s
Trip Threshold NST	-Hz FFt	
Jog Freq.	-Hz JOG	10 Hz
Jog Delay	-s JGt	0.5 s
V/f Profile	-% PFL	20%
Thermal Level Att.	-% tLd	100%
PI Prop. Gain	rPG	1
PI Int. Gain	-/s rIG	1/s
PI Filter	PSP	
PI Coeff	FbS	0.1
PI Inversion	PIC	no
PI Preset 2	% PI2	30%
PI Preset 3	% PI3	60%
ATV th fault	% dtD	105%

For further information, refer to instruction bulletins VVDED397047US (ATV58 TRX Keypad Display Programming Guide) and VVDED397048US (ATV58 TRX Type H Drive Controllers Installation Guide).

Electrical equipment should be serviced only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

Menu 3 – DRIVE Menu

Parameter	Code	Factory Setting
Nom. Motor Volt	-V UnS	depends on cat. #
Nom. Motor Freq.	-Hz FrS	50 / 60 Hz
Nom. Motor Curr	-A nCr	0.9 In
Nom. Motor Speed	-rpm nSP	depends on cat. #
Motor CosPhi (power fact.)	CoS	depends on cat. #
Auto Tuning	tUn	no
Max. Frequency	-Hz tFr	60 / 72 Hz
Energy Economy	nLd	no
I Limit Adapt.	Fdb	no
Dec Ramp Adapt	brA	no
Switch Ramp 2	-Hz Frt	0 Hz
Type of Stop	Stt	Stn
Standard Stop	Stn	
Fast Stop	FSt	
Freewheel	nSt	
DC Injection	DCI	
Ramp Type	rPt	LIn
Linear Ramp	LIn	
S Ramp	S	
U Ramp	U	
Dec Ramp Coef.	dCF	4
Torque Limit	-% tLi	200 %
Int. I Limit	-% CLi	1.36 In
Auto DC Inj.	AdC	yes
Mot. Power Coef.	PCC	1
Switching Freq. Type	SFT	LF
Range of 0.5 to 4 kHz	LF	depends on cat. #
Range of 4 to 16 kHz	HF1	depends on cat. #
High Duty Cycle w/ derat.	HF2	depends on cat. #
Sw. Freq 0.5 to 16	-kHz SFR	0.5 to 16 kHz
Noise Reduction	nrd	yes
Special Motor	SPC	no

Menu 4 – CONTROL Menu

Parameter	Code	Factory Setting
Terminal Strip Con	tCC	2 W
Two Wire 2W	2 W	
Three Wire 3W	3 W	
Type 2 Wire	tCt	LEL
No Transition	LEL	
Low to High Trans.	TRN	
Forward Input Pri.	PfO	
Inhibit Reverse	rIn	no
Low Speed Magmt	bSP	no
Linear LSP to HSP		
Pedestal Start	BLS	
Deadband Start	BNS	
AI2 Min. Ref.	-mA CrL	4 mA
AI2 Max. Ref.	-mA CrH	20 mA
Min. Val. AO	mA AOL	0 mA
Max. Val. AO	mA AOH	20 mA
Reference Memory	Str	no
No Memory		
Run Com. Removed	RAM	
Power Removed	EEP	
Keypad Com.	LCC	no
Stop Priority	Pst	yes
Drive Address	Add	0
Bd Rate RS485	tbr	
Reset Counters	rPr	

Menu 6 – FAULT Menu

Parameter	Code	Factory Setting
Auto Restart	ArR	no
Reset Type	rSt	rSP
Partial Reset	rSP	
Total Reset	rSG	
Output Phase Loss	OPL	yes
Input Phase Loss	IPL	yes
Thermal Protection	tHt	ACL
No Motor Protection		
Self Cooled Motor	ACL	
Force Cooled Motor	FCL	
Loss Follower	LFL	no
Immediate Fault	yes	
Reset on Signal	Stt	
Stop and Fault	LFF	no
Run at Preset Speed	LFF	no
Run at Last Speed	rLS	
Catch On Fly	FLr	
Controlled Stop	StP	
Phase loss drive trip		no
Regen w/dc Bus	naS	yes
Follow dc bus	FrP	
External Fault	EPL	yes

Menu 5 – I/O Menu

Parameter	Code	Factory Setting
LI2 Assign	LI2	reverse
LI3 Assign *	LI3	
LI4 Assign *	LI4	
Not assigned	no	
RV: Reverse	rU	
Switch Ramp2	rP2	
JOG	JOG	
+SP: +Speed	SP	
-Speed	-SP	
2 preset Sp	PS2	
4 preset Sp	PS4	
8 preset Sp	PS8	
Freewheel Stop	NST	
DC inject	DCI	
Fast stop	FSt	
Multi. Motor	CHP	
TorqueLim2	TL2	
Forced Local	FL0	
Fault Reset	rSt	
Auto/manu	RFC	
Auto-tune	Atn	
PI Auto/Man	PAU	
PI 2 Preset	Pr2	
PI 4 Preset	Pr4	
External Fault	Edd	
Torque Limit by AI	tLA	
AI2 Assign *	AI2	
Not assigned	no	
Speed ref 2	Fr2	
Summed ref.	SAI	
PI regulator	PIF	
R2 Assign / LO assign *	r2 / LO	
Not assigned	no	
Drive running	rUn	
Output contactor	OCC	
Freq reference attain.	FtA	
HSP attained	FLA	
Current level attained	CtA	
Reference Freq. Attain.	SrA	
Motor thermal lv1	tSA	
Brake logic	bLC	
4-20mA loss	APL	
F2 attained	F2A	
ATV th Alarm	TAD	
AO1 Assign	AO1	
Not assigned	no	
Motor current	OCr	
Motor frequency	OFr	
Output ramp	OrP	
Motor torque	trM	
Signed Torque	StM	
Signed Ramp	OrS	
PI Reference	OPS	
PI Feedback	OPF	
PI Error	OPe	
PI Integral	OPi	
Motor Power	OPr	
Motor Thermal	tHr	
Drive Thermal	tHd	

Menu 7 – FILES Menu

Parameter	Code	Factory Setting
File 1 State	F1S	FRE
File 2 State	F2S	FRE
File 3 State	F3S	FRE
File 4 State	F4S	FRE
Operation Type	F0t	no
No Operation Req.		no
Save Configuration	StR	
Transfer File to Drive	REC	
Return to Factory Set	In:	
Password	Cod	0000

* Factory setting depends on the macro selected.

Highlighted parameters are the most commonly adjusted and configured parameters during commissioning.

Note: These tables list all parameters that may appear in the designated menu. The parameters actually visible on your drive controller depend on its configuration and the options installed.