

# MAGNETEK

E L E V A T O R

## Magnetek Parameter Reference List (Using the JVOP180 Keypad)

Cross Reference Guide to programming the HPV1000 Drive using the JVOP180 Keypad





**Adjust Menu Parameters**

**Table 1 Drive A1 Submenu**

A1 Parameter Name	Description	Units	JVOP Reference
Contract Car Spd	Sets the elevator contract car speed. The value entered here will be the number that is displayed on the drive when commanded to run at high speed.	m/s	o1-25
Contract Mtr Speed	Motor speed (in rpm) that will allow the elevator to travel at Elevator Contract Car Speed.	RPM	o1-26
Response <3>, <4>	Sets the sensitivity of the drive's speed regulator in terms of the speed regulator bandwidth in radians. The responsiveness of the drive as it follows the speed reference will increase as this number increases. If the number is too large, the motor current and speed will become jittery. If this number is too small, the motor will become sluggish.	Rad/sec <3>, <4>	P5-02
Inertia <3>, <4>	Sets the equivalent of the system inertia in terms of the time it takes the elevator to accelerate to motor base speed at rated torque.	Sec <3>, <4>	P5-03
Encoder Pulses	This parameter sets the pulses per revolution the drive receives from the encoder.	PPR	F1-01
Mtr Torque Limit <2>, <3>, <4>	Sets the maximum torque allowed during the motoring mode.	% <2>, <3>, <4>	P5-08
Regen Torq Limit <2>, <3>, <4>	Sets the maximum regenerative torque allowed during the regeneration mode.	% <2>, <3>, <4>	P5-09
Trq Lim Msg Dly <1>, <2>, <4>	This parameter determines the amount of time the drive is in torque limit before the Torque Limit alarm is declared.	Sec <1>, <2>, <4>	L7-15
Gain Change Level <3>, <4>	Sets the speed level at which the Response (A1) gain will begin to be reduced for low gain mode.	% <3>, <4>	P5-07
Gain Reduce Mult <3>, <4>	This parameter is the percentage that the Response (A1) value will change to when in low gain mode.	% <3>, <4>	P5-06
Contact Flt Time	When external logic outputs are used to control the closing of the motor contactor, this parameter sets the amount of time delay at start until the drive output is enabled and current flows. And when external logic inputs are used to confirm the closing of the motor contactor, this parameter sets time the drive should expect the motor contactor confirmation signal to be made before a Contactor Fault is declared.	Sec	S6-20
Notch Frequency <3>, <4>	Sets the centre frequency of the notch filter.	Hz <3>, <4>	P5-11
Notch Depth <3>, <4>	Sets the attenuation level of the notch filter.	% <3>, <4>	P5-12
Tach Rate Gain <3>, <4>	Setting of this parameter helps with reducing the effects of rope resonance.	-	P5-05
Inner Loop Xover <3>, <4>	This parameter sets the frequency of the inner loop speed regulator	-	P5-04
Auto Restarts	Sets the number of times the drive may attempt to reset after the following faults occur: Ground Fault, Phase Loss, Overcurrent, Overvoltage, Braking Transistor Fault, Heatsink Error, Motor Overload, Drive Overload, Overtorque Detection 1, Overtorque Detection 2, Undertorque Detection 1, Undertorque Detection 2.	-	L5-01
Brake Pick Delay <1>, <2>	In Open Loop modes when external logic outputs are used to control the mechanical brake, this is the time delay from a drive	Sec <1>, <2>	P6-04



	run command until the brake is picked. This time delay needs to be set for the following: have DC injection current before the mechanical brake is picked and have DC injection current after the mechanical brake is picked to allow the brake to fully open.		
Brake Drop Delay <1>, <2>	In Open Loop modes when external logic outputs are used to control the mechanical brake and ramp to stop is selected, this parameter sets the time delay to set the brake after decelerating to the DC Stop Freq. This time delay needs to be set for the following: have DC injection current before the mechanical brake is closed and after the mechanical brake is picked to allow the brake to fully open.	Sec <1>, <2>	P6-05
Brake Pick Time	Determines the amount of time the drive allows for the brake to lift and close.	Sec	P6-06
AB Zero Spd Lev <3>, <4>	This parameter sets the speed point that will be considered as zero speed for the auto brake function.	% <3>, <4>	P6-07
AB Off Delay <3>, <4>	This parameter determines the time after zero speed is reached (level determined by the AB ZERO SPD LEV (A1) parameter) that the Autobrake logic output goes false.	Sec <3>, <4>	P6-08
Brake Open Delay	This sets how long the drive should wait after a RUN before the brake is picked with Brake Control (C3).	Sec	S1-06
Brake Fault Time	This parameter sets the time allowed for the brake pick feedback not to match the brake pick command before a Brake Pick Fault occurs.	ms	S6-05
Brake Close Dly	This sets how long the drive should wait before the brakes are dropped with Brake Control (C3).	Sec	S1-07
DC Start Level <1>, <2>	Determines the amount of current to use for DC Injection at start. Set as a percentage of the drive rated current.	% <1>, <2>	S1-02
DC Stop Level <1>, <2>	Determines the amount of current to use for DC Injection at stop. Set as a percentage of the drive rated current.	% <1>, <2>	S1-03
DC Stop Freq	Determines the speed to begin applying DC Injection (or Position Lock) when the drive is ramping to stop (C1 Stopping Mode = Ramp to Stop). Set as a percentage of the maximum output frequency (A5 Rated Motor Frequency).	%	S1-01
DC Brk TimeStart	Determines how long the drive should perform DC Start Level (A1). OR In Closed Loop Vect (U8) or PM ClosedLoopVct (U8) mode, this parameter determines how long Position Lock should be performed at the start. A setting of 0.00 disables this function.	Sec	S1-04
DC Brk Time Stop	Determines how long the drive should perform DC Injection at stop. OR In Closed Loop Vect (U8) or PM ClosedLoopVct (U8) mode, this parameter determines how long Position Lock should be performed at the stop. A setting of 0.00 disables this function.	Sec	S1-05
Pos Lock P Gain <3>, <4>	Sets the proportional gain for the speed regulator during Position Lock. If this is set too high, vibration can be introduced.	-	C5-19
Pos Lock I Time <3>, <4>	Sets the integral time for the speed regulator during Position Lock. If this is set too low, vibration can be introduced.	-	C5-20
Pos Lock Gain 1 <3>, <4>	Sets gain levels for the Position Lock function at the start of a run. Setting too low of a gain will cause the drive to be less responsive. Setting too high of a gain will cause vibration.		S3-01
Pos Lock Gain 2 <3>, <4>	Sets gain levels for the Position Lock function at the start of a run.		S3-02



	Setting too low of a gain will cause the drive to be less responsive. Setting too high of a gain will cause vibration.		
Pos Loc Stp Gain <3>, <4>	Sets the Position Lock gain at the stop. Setting too low of a gain will cause the drive to be less responsive. Setting too high of a gain will cause vibration.		S3-03
Pos Loc Stp Time <3>, <4>	Determines the reduction rate used to bring the internal torque reference value down to zero after Position Lock at Stop has finished.  Rate = (Torque 300%/ Pos Loc Stp Time)	ms <3>, <4>	S3-16
Pos Loc B-width <3>, <4>	Determines the bandwidth around the lock position in which a digital output programmed for Zero Servo End (C3) is active.		s3-04
Overspd Det Lvl <3>, <4>	Sets the speed at which an Overspeed fault is declared as a percentage of Contract Car Speed (A1).	% <3>, <4>	F1-08
Overspd Det Time <3>, <4>	Sets the time in seconds for an overspeed situation to trigger an Overspeed Fault.	Sec <3>, <4>	F1-09
PM Accel Limit <4>	Determines the how fast a PM motor can accelerate before an overacceleration fault is triggered.	- <4>	S6-10
Spd Dev Low Lvl <3>, <4>	When the difference between the speed reference and the speed feedback value exceeds this setting for the time set in Dev Low Time (A1), the Speed Deviation Low digital output is open.  Setting of 0.0 disables this feature (aka. output will always be closed).	% <3>, <4>	P2-01
Spd Dev Low Time <3>, <4>	When the difference between the speed reference and the speed feedback value exceeds the level in Dev Low Level (A1) for this time setting, the Speed Deviation Low digital output will open.	Sec <3>, <4>	P2-02
Speed Dev Alm Lvl <3>, <4>	When the difference between the speed reference and the speed feedback value exceeds this setting for the time set in Alarm Time (A1), a Speed Dev alarm is generated.  A setting of 0.0 disables this feature.	% <3>, <4>	P2-03
Spd Dev Alm Time <3>, <4>	Defines the time the Speed Feedback (D1) signals needs to be in the range of Speed Reference (D1) before a Speed Dev alarm is declared. The range is defined by Spd Dev Alm Lvl (A1).	Sec <3>, <4>	P2-04
Spd Dev Flt Lvl <3>, <4>	When the difference between the speed reference and the speed feedback value exceeds this setting for the time set in Fault Time (A1), a Speed Dev fault is generated.  A setting of 0.0 disables this feature.	% <3>, <4>	P2-05
Spd Dev Flt Time <3>, <4>	Defines the time the Speed Feedback (D1) signals needs to be in the range of Speed Reference (D1) before a Speed Dev Fault is declared. The range is defined by Spd Dev Flt Lvl (A1).	Sec <3>, <4>	P2-06
PreTrq Time <3>, <4>	Sets a time constant for the torque reference to reach 300%. Enabled by setting an analog terminal for torque compensation.  Effective only when Trq Comp Type (C1) is set to Pre-torque.	ms <3>, <4>	S3-10
PreTrq Dec Freq <3>, <4>	Sets the speed level for torque compensation to diminish.  A setting of 0.0 disables this function.  Effective only when Trq Comp Type (C1) is set to Pre-torque.	Hz <3>, <4>	S3-14



PreTrq Dec Time <3>, <4>	Sets the time for torque compensation to diminish once motor speed reaches the level set in TrqCmpFadeoutSpd (A1).  Effective only when Trq Comp Type (C1) is set to Pre-torque.	ms <3>, <4>	S3-15
Slip Comp Gain M <1>, <2>	Slip compensation for leveling speed in the motoring region.	-	S2-02
Slip Comp Gain R <1>, <2>	Slip compensation for leveling speed in the regenerative region.	-	S2-03
Trq Det Dly Time <1>, <2>	Sets a delay time before detecting torque for slip compensation.	ms <1>, <2>	S2-05
Trq Det FltrTime <1>, <2>	Sets the filter time constant applied to the torque signal used for the slip compensation value calculation.	ms <1>, <2>	S2-06
Slip Comp Gain <2>, <3>	Sets the gain for the motor slip compensation function.	-	C3-01
Slip Comp Time <2>	Adjusts the slip compensation function delay time.	ms <2>	C3-02
Slip Comp Limit <2>	Sets an upper limit for the slip compensation function as a percentage of motor rated slip.	% <2>	C3-03
Torq Comp Gain <1>, <2>	Sets the gain for the automatic torque (voltage) compensation function and helps to produce better starting torque.	-	C4-01
Torq Comp Time <1>, <2>	Sets the torque compensation filter time.	ms <1>, <2>	C4-02
Zero Speed Level	Sets the detection level for Zero Speed output.	%	L4-01
Zero Speed Width	Sets the width for Zero Speed output.	%	L4-02
SpdAgreeLvl +/-	Sets the speed detection level for digital output functions SpdRef /Out Agr (C3), SpdRef /Set Agr (C3), Spd Detection 3 (C3), and Spd Detection 4 (C3).	%	L4-03
SpdAgreeWdth +/-	Sets the range of the speed detection for digital outputs SpdRef /Out Agr (C3), SpdRef /Set Agr (C3), Spd Detection 3 (C3), and Spd Detection 4 (C3).	%	L4-04
Run Delay Time	Sets the time that must pass after the Up/Down command is entered until the drive internal Run command is set and the ride is started.	Sec	S1-10
Contactor DO Dly	Determines the delay time between shutting off the output of the drive and resetting the contactor control output (C3 'Close Contact') in order to release the motor contactor after a run has finished.	Sec	S1-11
Load Sense Time	Sets the time to perform Light Load Direction Search.	Sec	S4-03
Load Sense Speed	Sets the speed reference (percent of contract car speed) to use during Light Load Direction Search.	%	S4-04
Rescue Trq Limit	Sets the maximum motor torque when the drive is in Rescue Operation Mode.	%	S4-05
UPS Power Rating	Sets the capacity of the UPS used when the drive is in Rescue Operation Mode.	kVA	S4-07
DCVoltLvl@Rescue	Sets the DC bus voltage the drive should expect when the drive is in Rescue Operation Mode.	V	S4-12
PS ReuctnDetLvl	Determines at which level of backup power supply deterioration a PF5 fault is triggered in Rescue Operation.	%	S4-13
FieldForce Limit <2>, <3>	Sets the maximum limit of the excitation current command during magnetic field forcing. A setting of 100% is equal to motor no-load current. Disabled only during DC injection Braking.	% <2>, <3>	D6-06
Mtr Mag Flt Time	Sets a delay time to let the drive produce no-load current in the induction motors before the Starting Current Fault is declared.	ms	S6-02
Ser1 Spd Filter	Applies a filter when Spd Command SRC (C1) is set to Serial and Serial Mode (C1) is Mode 1.  A setting of 0.00 s disables this feature.	Sec	P1-10



Spd Input Filter <3>, <4>	Filter applied to the speed feedback and commanded speed before the E-Reg Process	ms <3>, <4>	P5-10
Mains Dip Speed	This parameter sets the percentage of contract speed for the speed to be reduced when the drive goes into 'low voltage' mode. The Mains Dip function is enabled by the Mains Dip Enable (MAINS DIP ENA(C1)) parameter. When the drive goes into 'low voltage' mode, it reduces the speed by the percentage defined by this parameter. 'Low voltage' mode is defined as when the drive declares a UV alarm, which is defined by the Input line-to-line voltage (INPUT L-L VOLTS(A4)) parameter and the Undervoltage.	%	P7-02
Ser2 Res CrpTime	When in Serial Mode 2 and SER2 FLT MODE (C1)=rescue, this parameter defines the maximum time the drive will continue to run at rescue creep speed (defined by SER2 RS CRP SPD (A1) parameter) when reacting to a serial fault. The time is defined as the time running at creep speed. It does not include the time it takes to decelerate to creep speed.	Sec	P9-05
Ser2 Res Crp Spd	When in Serial Mode 2 and SER2 FLT MODE (C1)=rescue, this parameter defines the creep speed that will be used in the "rescue mode".	m/s	P9-06
Ser2 Fault Tol	When in Serial Mode 2, this parameter defines the maximum time that may elapse between valid run time messages while in serial run mode before a serial fault is declared.	Sec	P9-07
Ser2 Insp Spd	When in Serial Mode 2, this parameter defines the inspection speed to be used. To run in inspection speed via serial mode 2 requires that the run command for inspection speed come from two sources, a command sent in a serial message and via hardware as a logic input defined as "SER2 INSP ENA".	m/s	P9-08

<1> Parameter accessible in V/f control mode

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode

**Table 2 S-Curves A2 Submenu**

A2 Parameter Name	Description	Units	JVOP Reference
Accel Rate 0	Acceleration Rate Limit	m/s <sup>2</sup>	C1-01
Decel Rate 0	Deceleration Rate Limit	m/s <sup>2</sup>	C1-02
Accel Jerk In 0	Rate of increase of acceleration, up to ACCEL RATE, when increasing elevator speed	m/s <sup>3</sup>	C2-01
Accel Jerk Out 0	Rate of decrease of acceleration to zero when approaching contract elevator speed	m/s <sup>3</sup>	C2-02
Decel Jerk In 0	Rate of increase of deceleration, up to DECEL RATE, when decreasing elevator speed	m/s <sup>3</sup>	C2-03
Decel Jerk Out 0	Rate of decrease of deceleration to zero when slowing the elevator to zero or level speed	m/s <sup>3</sup>	C2-04
Accel Rate 1	Acceleration Rate Limit	m/s <sup>2</sup>	P4-01
Decel Rate 1	Deceleration Rate Limit	m/s <sup>2</sup>	P4-02
Accel Jerk In 1	Rate of increase of acceleration, up to ACCEL RATE, when increasing elevator speed	m/s <sup>3</sup>	P4-03
Accel Jerk Out 1	Rate of decrease of acceleration to zero when approaching contract elevator speed	m/s <sup>3</sup>	P4-04
Decel Jerk In 1	Rate of increase of deceleration, up to DECEL RATE, when decreasing elevator speed	m/s <sup>3</sup>	P4-05



Decel Jerk Out 1	Rate of decrease of deceleration to zero when slowing the elevator to zero or level speed	m/s <sup>3</sup>	P4-06
Accel Rate 2	Acceleration Rate Limit	m/s <sup>2</sup>	P4-07
Decel Rate 2	Deceleration Rate Limit	m/s <sup>2</sup>	P4-08
Accel Jerk In 2	Rate of increase of acceleration, up to ACCEL RATE, when increasing elevator speed	m/s <sup>3</sup>	P4-09
Accel Jerk Out 2	Rate of decrease of acceleration to zero when approaching contract elevator speed	m/s <sup>3</sup>	P4-10
Decel Jerk In 2	Rate of increase of deceleration, up to DECEL RATE, when decreasing elevator speed	m/s <sup>3</sup>	P4-11
Decel Jerk Out 2	Rate of decrease of deceleration to zero when slowing the elevator to zero or level speed	m/s <sup>3</sup>	P4-12
Accel Rate 3	Acceleration Rate Limit	m/s <sup>2</sup>	P4-13
Decel Rate 3	Deceleration Rate Limit	m/s <sup>2</sup>	P4-14
Accel Jerk In 3	Rate of increase of acceleration, up to ACCEL RATE, when increasing elevator speed	m/s <sup>3</sup>	P4-15
Accel Jerk Out 3	Rate of decrease of acceleration to zero when approaching contract elevator speed	m/s <sup>3</sup>	P4-16
Decel Jerk In 3	Rate of increase of deceleration, up to DECEL RATE, when decreasing elevator speed	m/s <sup>3</sup>	P4-17
Decel Jerk Out 3	Rate of decrease of deceleration to zero when slowing the elevator to zero or level speed	m/s <sup>3</sup>	P4-18
Fast Stop Time	Used when a Fast Stop is invoked.	m/s <sup>2</sup>	C1-09

**Table 3 Multistep Reference A3 Submenu**

A3 Parameter Name	Description	Units	JVOP Reference
Speed Command 1	Sets the Speed command for the drive. Speed command selected depends on the following table:	m/s	D1-02
Speed Command 2		m/s	D1-03
Speed Command 3		m/s	D1-04
Speed Command 4		m/s	D1-05
Speed Command 5		m/s	D1-06
Speed Command 6		m/s	D1-07
Speed Command 7		m/s	D1-08
Speed Command 8		m/s	D1-09
Speed Command 9		m/s	D1-10
Speed Command 10		m/s	D1-11
Speed Command 11		m/s	D1-12
Speed Command 12		m/s	D1-13
Speed Command 13		m/s	D1-14
Speed Command 14		m/s	D1-15
Speed Command 15		m/s	D1-16
Inspect Oper Spd	Sets speed reference when inspection operation is enabled.	m/s	D1-24
Rescue Speed	Rescue Operation Speed: Sets the speed that the elevator will run at when it is in Rescue Operation Mode.  Note: This setting can be disabled with the setting of Rescue Speed (C1).	m/s	D1-25



**Table 4 Power Convert A4 Submenu**

A4 Parameter Name	Description	Units	JVOP Reference
Input Voltage	This parameter must be set to the power supply voltage.	VAC	E1-01
UV Detect Level	Sets the DC bus undervoltage trip level.	VDC	L2-05
Mains Dip Level	This parameter sets the level (as a percentage of the Input Voltage - A4) at which an under voltage alarm will be declared. Units in percent of nominal bus.	%	P7-03
PWM Frequency <2>, <3>, <4>	This parameter sets the PWM or 'carrier' frequency of the drive.	kHz <2>,, <4>	C6-03
OH Pre-Alarm Lvl	Set an OVRD shutdown alarm that will occur if the drive heatsink temperature exceeds this setting.	C	L8-02
Fan Delay Time	Sets a delay time to shut off the cooling fan after the run command is removed.	Sec	L8-11
	Note: This operating mode can be disabled.		

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode

**Table 5 Motor A5 Submenu**

A5 Parameter Name	Description	Units	JVOP Reference
Rated Mtr Power	Sets the motor rated power in kW. Automatically set during Auto-Tuning.	kW	E2-11 <1>,<2>,<3> E5-02 <4>
Rated Mtr Volts	Sets the motor rated voltage. Automatically set during Auto-Tuning.	VAC	E1-05
Rated Motor Freq <1>, <2>, <3>	Sets the motor rated frequency for induction motors. Automatically set during Auto-Tuning.	Hz <1>, <2>, <3>	E1-04
Rated Motor Speed <4>	Sets the motor rated speed when the drive is set to PM Vector.	RPM <4>	E1-06
Rated Motor Curr	Sets the motor nameplate current in amps. Automatically set during some Auto-Tuning.	A	E2-01 <1>,<2>,<3> E5-03 <4>
Number of Poles	Sets the number of motor poles. Automatically set during Auto-Tuning.	-	E2-04 <1>,<2>,<3> E5-04 <4>
Motor Rated Slip <1>, <2>, <3>	Sets the motor rated slip. Automatically set during Auto-Tuning.	Hz <1>, <2>, <3>	E2-02
No-Load Current <1>, <2>, <3>	Sets the no-load current for the induction motor. Automatically set during Auto-Tuning.	A<1>, <2>, <3>	E2-03
Leak Inductance <1>, <2>, <3>	Sets the voltage drop due to motor leakage inductance as a percentage of motor rated voltage. Automatically set during Auto-Tuning.	%	E2-06
Term Resistance	Sets the phase-to-phase motor resistance. Automatically set during Auto-Tuning.	Ω	E2-05
Saturation Comp1 <2>	Sets the motor iron saturation coefficient at 50% of magnetic flux. Automatically set during Auto-Tuning.	-	E2-07
Saturation Comp2 <2>	Sets the motor iron saturation coefficient at 75% of magnetic flux. Automatically set during Auto-Tuning.	-	E2-08





Motor Min Volts <1>, <2>	This parameter sets voltage at the V/Hz pattern minimum frequency. Used in Open Loop modes.	VAC <1>, <2>	E1-10
Motor Min Freq <1>, <2>	This parameter sets minimum frequency used to define the V/Hz pattern in Open Loop modes.	Hz <1>, <2>	E1-09
Mid Mid Volts <1>, <2>	This parameter sets rated voltage at the V/Hz pattern middle frequency in Open Loop modes.	VAC <1>, <2>	E1-08
Motor Mid Freq <1>, <2>	This parameter sets middle frequency used to define the V/Hz pattern in Open Loop modes.	Hz <1>, <2>	E1-07
Base Voltage <1>, <2>, <3>	Sets the voltage going out to the motor when the drive is running at the Base Frequency (A5). This setting would normally match the Mtr Rated Voltage (A5). Automatically set during auto-tune.	VAC <1>, <2>, <3>	E1-13
Base Frequency <1>, <2>, <3>	Sets the motor base frequency.	Hz <1>, <2>, <3>	E1-06
V/F Rated Speed <1>		RPM <1>	S2-01
Mechanical Loss <2>, <3>	Sets the induction motor mechanical loss as a percentage of motor rated power (kW).	% <2>, <3>	E2-09
D Axis Induct <4>	Sets the d-axis inductance of a PM motor.	mH<4>	E5-06
Q Axis Induct <4>	Sets the q-axis inductance of a PM motor.	mH<4>	E5-07
PM Mtr Ind V 1 <4>	Sets the induced phase peak voltage in units of 0.1 mV [electrical angle].  Note: If this parameter is set to a non-zero, PM Mtr Ind V 2 (A5) should be set to 0.0.	mH <4>	E5-09
PM Mtr Ind V 2 <4>	Sets the induced phase peak voltage in units of 0.1 mV [electrical angle].  Note: If this parameter is set to a non-zero, PM Mtr Ind V 1 (A5) should be set to 0.0.	mH <4>	E5-24
Mtr OL Method	Sets the type of motor overload to be used to protect the motor from overheating: -VT Motor -CT Motor -Vector Motor	-	L1-1
Mtr OL Timeout	Sets the motor thermal overload protection (oL1) time.	Min	L1-02
Encoder Offset <4>	Sets the offset between the rotor magnetic axis and the encoder zero position. Set during Encoder Offset Tuning.	Deg	E5-11

<1> Parameter accessible in V/f control mode

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode

## Configure Menu Parameters

**Table 6 User Switches C1 Submenu**

C1 Parameter Name	Description	Choices	JVOP Reference
Spd Command Src	This parameter selects the source of the drives speed command Multi-Step - Uses discrete logic inputs to choose which multi-step speed command the drive should follow Ser Multi-Step - operates similar to Multi-Step however uses serial signaling as opposed to logic inputs Serial - The drive will follow a serially dictated speed profile Analog - The drive will follow an externally generated bipolar analogue speed reference	<ul style="list-style-type: none"> <li>- Multi-Step (0)</li> <li>- Ser Multi-Step (6)</li> <li>- Serial HPV Ref (5)</li> <li>- AnalogInput (1)</li> </ul>	B1-01



Run Command Src	This parameter selects the source of the drives run command. External TB - uses discrete logic inputs to command the drive to run Serial - uses a serial signal to command the drive to run	– External TB (1) – Serial HPV Seq (5)	B1-02
Serial Run Src	If a serial run command is used, this parameter allows either the serial run signal to operate independently or in conjunction with an External TB input	– Serial Only (0) – Serial+External (1)	P1-01
Motor Rotation	Allows the output phasing of the drive to be reversed without needing to swap motor wiring	– Forward (0) – Reverse (1)	B1-14
Speed Reg Type	Selects between the Magnetek Elevator Speed Regulator and the Yaskawa Speed Regulator	– E-Reg (1) – Yaskawa ASR (0)	P5-01
Brake Pick Src	Allows Brake Pick operation to be controlled internally or by an external serial source.	– Internal (0) – Serial (1)	P6-01
Brake Pick Cnfm	This parameter defines how the mechanical brake signal is monitored by the drive. A setting of None, will result in the drive not waiting for any brake pick confirmation signaling. A setting of External TB will look to a logic input for confirmation the mechanical brake is lifted by means of brake pick switches. A setting of Internal Time will result in the drive waiting Brake Pick Time (A1) before beginning travel.	– None (0) – External TB (1) – Internal Time (2)	P6-02
Auto Stop	Enabling Auto Stop will allow the drive to complete a travel on removal of the speed command only (with the run command still present). The run command is required to be cycled prior to a new travel. When enabled, the run command is not accepted until a speed command is also provided.	– Disabled (0) – Enabled (1)	P6-03
Encoder Select <4>	Selects the encoder type connected the PG-F3 option card	– EnDat Sin/Cos (0) – EnDat SerialOnly (1) – Hiperface (2)	F1-50
Encoder Com Spd <4>	Selects the communication speed between the PG-F3 option card and the encoder	– 1M/9600bps (0) – 500k/19200bps (1) – 1M/38400bps (2) – 1M/38400bps (3)	F1-52
Encoder Connect	This parameter swaps the phasing of the encoder signals to negate the need to re-terminate wires	Forward (0) Reverse (1)	F1-05
PG Card Detect	When enabled the drive will report if an option card is removed whilst required for the current operation mode	Enabled (1) Disabled (0)	F1-20
Stopping Mode	A setting of Coast To Stop requires the run command to be active until the lift is stationary as if the run is removed, travel will complete immediately (crash stop). If set to Ramp to Stop and the Run command is removed whilst in travel, the lift will slow and perform a controlled stop.	– Coast to Stop (1) – Ramp to Stop (0)	B1-03
Serial Mode	Selects the serial protocol used to communicate with the control system.	– HPV Mode 1 (1) – HPV Mode 2 (2) – Memobus (0)	P9-01
Ser Comm Err Sel	Defines how the drive reacts when 3 consecutive checksum errors are noted	– Fault (2) – None (0) – Alarm (1)	P9-02
Ser1 Time-out Sel	Defines how the drive reacts when a runtime message is not received within 40ms (when using serial mode 1 only)	– Fault (2) – None (0) – Alarm (1)	P9-03
Ser2 Fault Mode	Defines how the drive will react if serial communication is lost (when using serial mode 2 only). Immediate - the lift will crash stop immediately. Rescue - the lift will continue at SER2 Res Crp Spd until either the enable signal is removed or Ser2 ResCrpTime elapses.	– Immediate (0) – Rescue (2) – Run Remove (1)	P9-04



	Run Remove - the drive will behave in the same way as if a run command is removed as defined by other sequencing parameters (stopping mode, etc.).		
Trq Comp Cmd Src <3>, <4>	Selects the source for the Torque Compensation Command if used.	– Analog (3) – Serial HPV (1) – Option Card (2) – Disabled (0)	P1-02
Trq Comp Latch <3>, <4>	If Torque Compensation is used, this parameter selects whether the values is latched on run command.	– Disabled (0) – Enabled (1)	P1-03
Trq Comp Type <3>, <4>	Selects which Torque Compensation method is used	– Pre-torque (0) – Feed Forward (1)	P1-04
Mtr Overload Act	Determines which action the drive takes when a Motor Overload has been detected.	– Alarm Only (1) – Fault (0)	L1-06
Field Force Sel <2>, <3>	Determines if Field Forcing is in operation	– Disabled (0) – Enabled (1)	D6-03
Restart Sel	Determines if the fault output is active when a reset is attempted	– Flt Outp Disabld (0) – Flt Outp Enabled (1)	L5-02
Out Ph Loss Det	Defines the output (motor) phase loss detection method	– Disabled (0) – 1PH Loss Det (1) – 2/3PH Loss (2) – DC-PH (3)	L8-07
DB Tr Protection	Defines if the internal DBR protection is active (can be disabled when using a regen unit or external brake module)	– Enabled (1) – Disabled (0)	L8-55
Autotune Cont On	Determines the state of the motor contactor output during Auto-Tuning.	– Disabled (0) – Enabled (1) – Enable at HBB (2)	S1-12
Power Supply Sel	Selects the backup power supply method.	– Battery (0) – Single Phase UPS (1) – Three Phase UPS (2)	S4-06
Auto Fc Reduce	If enabled, Torque Boost increases the output current limit while decreasing the carrier frequency when required	Disabled (0) Enabled (3)	L8-38
OH Pre-Alarm Sel	Defines the operation in the event of an overheat alarm.	Alarm Only (3) Ramp to Stop (0) Coast to Stop (1)	L8-03
Inp Ph Loss Det	Defines when the drive should declare a PF Fault.	En During Run (2) Disabled (0) En at Const Spd (3)	L8-05
PPT Select	When enabled the drive will sense cabin load prior to lifting brake outputs, then pretorque motor to prevent rollback.	Disabled (0) Enabled (1)	P5-13
Mains Dip Enable	When enabled, this allows the maximum operating speed to be limited under low mains voltage or when commanded via a logic input	Disabled (0) External TB (2) Low Mains (1)	P7-01
Output V Lim Sel <2>, <3>, <4>	Function that will automatically decrease motor flux when the output voltage reaches the saturation range.	-Enabled (1) -Disabled <2>, <3>, <4> (0)	C3-05
Fan Selection	Used to determine how the drive cooling fans will operate.	– Run With Timer (0) – Run Always (1) – Temp Controlled (2)	L8-10
Inspection PWM	Sets if the drive will run at reduced PWM frequency when on inspection control.	– 2kHz (1) – Default Carrier (0)	C6-21



Rescue PWM	Sets if the drive will run at reduced PWM frequency when in rescue operation.	– 2kHz (1) – Default Carrier (0)	C6-31
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<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode <5> Default is dependent on drive model number

**Table 7 Logic Inputs C2 Submenu**

C2 Parameter Name	Description	JVOP Reference
Logic Input S1	Logic Input 1 on terminal S1	H1-01
Logic Input S2	Logic Input 2 on terminal S2	H1-02
Logic Input S3	Logic Input 3 on terminal S3	H1-03
Logic Input S4	Logic Input 4 on terminal S4	H1-04
Logic Input S5	Logic Input 5 on terminal S5	H1-05
Logic Input S6	Logic Input 6 on terminal S6	H1-06
Logic Input S7	Logic Input 7 on terminal S7	H1-07
Logic Input S8	Logic Input 8 on terminal S8	H1-08

**Table 8 Logic Input Choices**

C2 Parameter Choice	Description	JVOP Reference
Brake Feedback NC	Brake Feedback Normally Closed	5B
Brake Feedback NO	Brake Feedback Normally Open	79
Comm Test Mode	Serial Comm Test Mode	67
Contact Cnfm NC	Contact Confirmation Normally Closed	5A
Contact Cnfm NO	Contact Confirmation Normally Open	56
DL Dist Correctn	Stop Distance Correction Input	5C
Drive Enable	Drive Enable	80
BaseBlock NC	Base Block Normally Closed	09
BaseBlock NO	Base Block Normally Open	56
Fast-Stop NO	Fast Stop Normally Open	15
Fast-Stop NC	Fast Stop Normally Closed	17
Fault Reset	Fault Reset	14
Insp Operation	Inspection Operation	54
Intermed Speed	Intermediate Speed	51
Jog Freq Ref	Jog Frequency Reference	06
Leveling Speed	Leveling Speed	53
Mains Dip Enable	Mains Dip Enable	88
Multi-Step Ref 1	Multi-Step input 1	03
Multi-Step Ref 2	Multi-Step input 2	04
Multi-Step Ref 3	Multi-Step input 3	05
Multi-Step Ref 4	Multi-Step input 4	32
NC Ext Fault 1	Normally Closed External Fault (always detect, ramp to stop)	21
NC Ext Fault 2	Normally Closed External Fault (always detect, cost to stop)	25
NC Ext Fault 3	Normally Closed External Fault (always detect, fast stop)	29
NC Ext Fault 4	Normally Closed External Fault (always detect, alarm only)	2D
NC Ext Fault 5	Normally Closed External Fault (during run, ramp to stop)	23
NC Ext Fault 6	Normally Closed External Fault (during run, cost to stop)	27
NC Ext Fault 7	Normally Closed External Fault (during run, fast stop)	2B
NC Ext Fault 8	Normally Closed External Fault (during run, alarm only)	2F
NO Ext Fault 1	Normally Open External Fault (always detect, ramp to stop)	20



NO Ext Fault 2	Normally Open External Fault (always detect, cost to stop)	24
NO Ext Fault 3	Normally Open External Fault (always detect, fast stop)	28
NO Ext Fault 4	Normally Open External Fault (always detect, alarm only)	2C
NO Ext Fault 5	Normally Open External Fault (during run, ramp to stop)	22
NO Ext Fault 6	Normally Open External Fault (during run, cost to stop)	26
NO Ext Fault 7	Normally Open External Fault (during run, fast stop)	2A
NO Ext Fault 8	Normally Open External Fault (during run, alarm only)	2E
Nominal Speed	Nominal Speed Input	50
Not Used	Input Not Used	F
Pre-Torque Latch	Pre-Torque Latch Input	81
Re-Lvling Speed	Re-Leveling Speed Input	52
Rescue Operation	Rescue Operation Input	55
Run Down	Run Down Input	41
Run Up	Run Up Input	40
Run	Run Input	42
S-curve Select 0	S-curve Select 0 Input	86
S-curve Select 1	S-curve Select 1 Input	87
Ser2 Insp Ena	Ser2 Insp Enable Input	89
Speed Limit Down	Speed Limit Down	58
Speed Limit Up	Speed Limit Up	57
Timer function	Timer function	18
Up/Down	Up/Down Input	43

**Table 9 C3 Logic Outputs**

C3 Parameter Name	Description	JVOP Reference
Logic output P1	Terminal P1 - C1 Function Selection (photocoupler)	H2-04
Logic output P2	Terminal P2 - C2 Function Selection (photocoupler)	H2-05
Relay M1-M2	Terminal M1 - M2 Function Selection (relay)	H2-01
Relay M3-M4	Terminal M3 - M4 Function Selection (relay)	H2-02
Relay M5-M6	Terminal M5 - M6 Function Selection (relay)	H2-03

**Table 10 Logic Output Choices**

C3 Choice	Description	JVOP Reference
Auto Brake	Auto Brake Output (uses encoder feedback to ensure motor is stationary before setting)	46
BaseBlock NO	Base Block output Normally Open	08
BaseBlock NC	Base Block output Normally Closed	1B
Brake Pick	Brake Pick Output (uses run signaling/timers to set the brake)	45
Close Contact	Motor Contactor output	51
DBR Trans Flt	Dynamic Braking Transistor Fault	4E
DC Bus Undervolt	DC Bus Undervolt Fault	07
Door Zone	Door Zone Output	52
Drive Ready	Drive Ready to Run	06
Dur Flt Restart	Drive fault being reset	1E
During Run 1	Output closes when the drive is outputting a voltage	00
During Run 2	Output closes when the drive is outputting a frequency	37
Fan Alarm	Internal cooling fan alarm	60
Fault	Drive in a faulted state	0E
Input Ph Loss	Input Phase Loss detected	47
LightLoadDetStat	Light Load Direction Detection Status	55
LightLoadDirect	Light Load Direction	54
Maintenance	Drive requires maintenance	2F
Minor Fault	A Minor fault is active	10
Motor Overload	Motor Overload fault active	1F



Not Used	Output not used	0F
Overheat Alarm	Motor or drive over temperature alarm active	20
Ovld Shdwn Alm	Overload shutdown alarm active	42
Regenerating <3>, <4>	Drive is running and regenerating (not motoring)	1D
Reset Cmd Active	Fault Reset input active	11
Reverse Dir	Lift traveling in reverse direction (down)	1A
SafeDisable Stat	Safe Disable Status	58
Spd Detection 3	Speed Detection 3	15
Spd Detection 4	Speed Detection 4	16
Spd Ref Release	Speed Reference Release active	44
Spd Reg Release	Speed Regulator Release active	41
SRef/Out Agr 1	Speed Reference Agree 1	02
SRef/Out Agr 2	Speed Reference Agree 2	13
SRef/Set Agr 1	Speed User Set Agree 1	03
SRef/Set Agr 2	Speed User Set Agree 2	14
Speed Dev Low <3>, <4>	Speed Deviation low active	40
Torque Detect 1	Torque Detect 1	0B
Torque Detect 2	Torque Detect 2	18
Torque Limit <2>, <3>, <4>	Drive in Torque Limit	30
Zero Speed	Zero speed output	105
! BaseBlock NC	Base Block output Normally Open (Inverse)	11B
! BaseBlock NO	Base Block output Normally Closed (Inverse)	108
! Brake Pick	Brake Pick Output (uses run signaling/timers to set the brake) (Inverse)	150
! Close Contact	Motor Contactor output (Inverse)	151
! Drive Ready	Drive Ready to Run (Inverse)	106
! DBR Trans Flt	Dynamic Braking Transistor Fault (Inverse)	14E
! DCBus Undervlt	DC Bus Undervolt Fault (Inverse)	107
! Door Zone	Door Zone Output (Inverse)	152
! During Run 1	Output closes when the drive is outputting a voltage (Inverse)	100
! During Run 2	Output closes when the drive is outputting a frequency (Inverse)	137
! Fan Alarm	Internal cooling fan alarm (Inverse)	160
! Fault	Drive in a faulted state (Inverse)	10E
! Input PH Loss	Input Phase Loss detected (Inverse)	147
! LiteLoadDetSta	Light Load Direction Detection Status (Inverse)	155
! LiteLoadDirect	Light Load Direction (Inverse)	154
! Maintenance	Drive requires maintenance (Inverse)	12F
! Minor Fault	A Minor fault is active (Inverse)	110
! Motor Overload	Motor Overload fault active (Inverse)	11F
! Overheat Alarm	Motor or drive over temperature alarm active (Inverse)	120
! Ovld Shdwn Alm	Overload shutdown alarm active (Inverse)	142
! Regenerating <3>, <4>	Drive is running and regenerating (Inverse)	11D
! ResetCmd Activ	Fault Reset input active (Inverse)	111
! Restart Enable	Output active unless drive fault auto reset occurring	11E
! Reverse Dir	Lift traveling in reverse direction (down) (Inverse)	11A
! SafeDisablStat	Safe Disable Status	158
! Spd Ref Rls	Speed Reference Release active (Inverse)	144
! Spd Reg Rls	Speed Regulator Release active (Inverse)	141
! Speed Dev Low <3>, <4>	Speed Deviation low active (Inverse)	140
! SRef/Out Agr 1	Speed Reference Agree 1 (Inverse)	102
! SRef/Out Agr 2	Speed Reference Agree 2 (Inverse)	113
! SRef/Set Agr 1	Speed User Set Agree 1 (Inverse)	103
! SRef/Set Agr 2	Speed User Set Agree 2 (Inverse)	114
! Torque Limit <2>, <3>, <4>	Drive in Torque Limit (Inverse)	130
! Trq Det 1 N.O.	Torque Detect 1 (Inverse)	10B



! Trq Det 2 N.O.	Torque Detect 2 (Inverse)	118
! Zero Speed	Zero speed output (Inverse)	05

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode

**Table 11 C4 Analog Outputs**

C4 Parameter Name	Description	JVOP Reference
Analog FM Select	Terminal FM Monitor Selection	H4-01
Analog FM Level	Sets the required working range of analog output FM	H4-07
Analog FM Gain	Sets the signal level at terminal FM that is equal to 100% of the selected monitor value.	H4-02
Analog FM Bias	Sets the bias value added to the terminal FM output signal.	H4-03
Analog AM Select	Terminal AM Monitor Selection	H4-04
Analog AM Level	Sets the required working range of analog output AM	H4-08
Analog AM Gain	Sets the signal level at terminal AM that is equal to 100% of the selected monitor value.	H4-05
Analog AM Bias	Sets the bias value added to the terminal AM output signal.	H4-06

**Table 12 Analog Output Choices - Examples**

C4 Choice	Description	JVOP Reference
ASR Out w/o Fil	Yaskawa Speed Regulator output (without filter)	625
dAxis CtrlOutp <2>, <3>, <4>	d-Axis Current Controller Output	608
DC Bus Voltage	DC Bus Voltage	107
Encoder Counts	Encoder Counts	618
Heatsink Temp	Heatsink Temperature	408
InertiaComp Outp <3>, <4>	Inertia Compensation Output	626
Mot EXC Current <2>, <3>, <4>	Motor Excitation Current (Id)	602
Mot SEC Current	Motor Secondary Current (Iq)	601
Mot Overload Lvl	Motor Overload Estimate (oL1)	416
Not Used	Used to disable the outputs	0
Offset Frequency	Output Frequency	621
Output Current	Output Current	103
Output kWatts	Output Power in kW	108
Output Speed	Output Speed	102
Output Voltage	Output Voltage	106
PID Diff Fdbk	PID Regulator Difference	506
PID Feedback 1	PID Regulator Feedback 1	501
PID Feedback 2	PID Regulator Feedback 2	505
PID Input	PID Input	502
PID Output	PID Output	503
PID Setpoint	PID Setpoint	504
PosLck Dev Count <3>, <4>	Position Lock Deviation Count	622
qAxis I CtrlOutp <2>, <3>, <4>	q-Axis Current Controller Output	607



Rescue SpdLimLvl	Speed Reference limit at Rescue Operation	188
Spd Ctrl Input <3>, <4>	Speed Control Loop Input	603
Spd Ctrl Output <3>, <4>	Speed Control Loop Output	604
SpdFbkCmp Output <4>	Speed Feedback Compensation Output	656
Speed Command	Speed Command	101
Speed Feedback	Speed Feedback	105
Speed Reference	Speed Reference	116
Term A1 Level	Terminal A1 Input Voltage	113
Term A2 Level	Terminal A2 Input Voltage	114
Term A3 Level	Terminal A3 Input Voltage	115
Term RP Inp Freq	Terminal RP Input Frequency	124
Torque Comp <2>, <3>, <4>	Torque Compensation	190
Torque Reference <2>, <3>, <4>	Torque Reference	109
Up/Dn 2 Bias Val	Up/Dn Bias Value	620
Voltage Ref (Vd) <2>, <3>, <4>	Output Voltage Reference (Vd)	606
Voltage Ref (Vq) <2>, <3>, <4>	Output Voltage Reference (Vq)	605

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode

**Table 13 C5 Analog Inputs**

C5 Parameter Name	Description	JVOP Reference
Analog A1 Select	Analog Input A1 Function Select	H3-02
Analog A1 Gain	Sets the gain level of the input value when 10 V is applied at terminal A1.	H3-03
Analog A1 Bias	Sets the level of the input value when 0 V is applied at terminal A1	H3-04
Analog A1 Offset	Applies an offset to analog input A1. Can be used for zero adjustment of the analog input.	H3-16
Analog A1 Level	Sets the required working range of analog input A1	H3-01
Analog A2 Select	Analog Input A2 Function Select	H3-10
Analog A2 Gain	Sets the gain level of the input value when 10 V is applied at terminal A2.	H3-11
Analog A2 Bias	Sets the level of the input value when 0 V is applied at terminal A2.	H3-12
Analog A2 Offset	Applies an offset to analog input A2. Can be used for zero adjustment of the analog input.	H3-17
Analog A2 Level	Sets the required working range of analog input A2	H3-09
Analog In Filter	Sets a primary delay filter time constant for terminals A1 and A2. Used for noise filtering.	H3-13

**Table 14 Analog Input Choices**

C5 Choice	Description	JVOP Reference
Motor PTC	Motor Thermistor Input Declares a Motor OH Alarm at 1.18v Declares a Motor OH Fault at 2.293v	E





Not Used	Input disabled	1F
Speed Command	Used as the primary external speed reference when the drives speed profile is dictated by an external speed profile generator within the control system.	0
Pre-Torque	Load cell input when Trq Comp Type (C1) is configured to Pre-Torque or Torque Feed Forward when Trq Comp Type (C1) is configured to Feed Forward.	14



## Utility Menu Parameters

Submenus	Description	JVOP Reference
<b>U1</b> Password	<p>The password allows the user to restrict a select few parameters from being viewed and accessed without the correct 4 digit password. The value shown in the "Enter Password" screen as shown below will display the last value that was entered as a possible password.</p> <p>If the displayed password does not match the drive's valid password, the drive will continue to hide and restrict parameters. The currently set password can be revealed if the following is done. While in the sub-menu U1 Password with "Enter Password" on the display, press and hold the "F2" key while hitting the up directional arrow. If done successfully, the following display below will appear with the password.</p> <p>While in the "Select Password" sub-menu, the user can either leave the password the same, change the password by pressing the "ENTER" key, or resetting the password back to default of 0 by pressing the "F2" key for reset. After any of the above is done, press the "ESC" key to go back into the main menu.</p>	A1-04 A1-05
<b>U2</b> Modified Const	Lists all parameters that have been edited or changed from default settings	Modified Consts Menu
<b>U3</b> Units Selection	<p>Sets the units that are used and displayed in the drive. The following options can be selected:</p> <ul style="list-style-type: none"> <li>• Contract: m/s</li> <li>• r/min</li> <li>• User Units</li> <li>• 0.0001</li> <li>• 0.01Hz</li> <li>• Contract:fpm</li> </ul>	O1-03
<b>U5</b> Factory Dflts	<p>Initialize all the drive parameters back to default settings. NOTE: the default settings depends on the setting of Control Method (U8) and Inverter Model # (U6). The following options can be selected:</p> <ul style="list-style-type: none"> <li>• No Initialize - The drive will not initialize the parameters to default settings</li> <li>• Term -&gt; Cntrl Int - The drive will transfer all the parameter settings from the terminal board to the control board. Should only need to be done if a new control board was installed</li> <li>• Factory Default - The drive will initialize all the parameters to factory default settings.</li> </ul>	A1-03 - No Initialize (0) - Term -> Cntrl Int (5550) - Factory Default (2220)
<b>U6</b> Drive Info	<p>Displays and adjusts the drive's hardware and software configuration and revisions.</p> <ul style="list-style-type: none"> <li>• SW No. (Flash) - Displays the drive software</li> <li>• SW No. (ROM) - Displays the drive gate firing software</li> <li>• Drive Firm Ver - Displays the drive software version</li> <li>• Drive Model - Selects the drive rating</li> <li>• Operator Firm - Displays the operator software revision</li> </ul>	<ul style="list-style-type: none"> <li>• SW No. (Flash) – U1-25</li> <li>• SW No. (ROM) – U1-26</li> <li>• Drive Firm Ver – U7-01</li> <li>• Drive Model – O2-04</li> <li>• Operator Firm – N/A</li> </ul>
<b>U7</b> Language Select	<p>Selects different languages. The following options can be selected:</p> <ul style="list-style-type: none"> <li>• English</li> </ul>	A1-00
<b>U8</b> Basics	<p>The control method determines the type of AC motor that will be connected to the drive and the type of motor control that will be applied to the attached motor. The following options can be selected:</p> <ul style="list-style-type: none"> <li>• V/f Control - The drive will spin an induction motor with no vector control or no feedback</li> <li>• Closed Loop Vect - The drive will spin an induction motor with vector control using an encoder feedback.</li> <li>• Open Loop Vector - The drive will spin an induction motor with vector control using no encoder feedback.</li> </ul>	A1-02 - V/f Control - 0 - Closed Loop Vec -3 - Open Loop Vec -2 - PM Closed Loop Vec -7



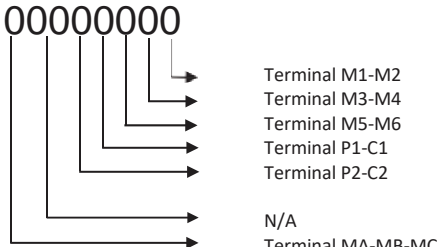
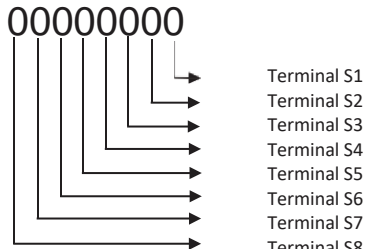
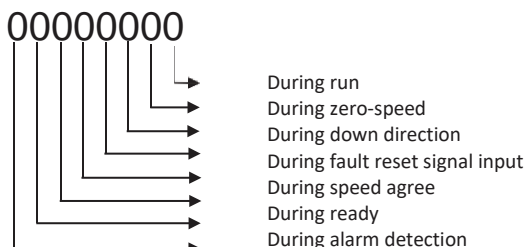
	<ul style="list-style-type: none"> <li>PM - The drive will control a permanent magnet motor with closed loop control using encoder feedback.</li> </ul>	
<p><b>U9</b> Autotune</p>	<p>Allows the drive to perform autotune on the motor connected to the drive.</p> <p>Refer to the following Application Notes for the Tuning Procedure:-</p> <p>Closed Loop Vector – Application Note 27</p> <p>Closed Loop PM – Application Note 28</p>	<p>T1-01 – Tuning Mode Select &lt;2&gt;, &lt;3&gt;</p> <p>T2-01 – Tuning Mode Select &lt;4&gt;</p>
<p><b>U10</b> Alternate Nav</p>	<p>The alternate navigation operates on 5 levels: the main menu level, parameter group level, parameter sub-group level, parameter level, and the data entry level. At the menu level, it allows the user to navigate between menus. At the parameter group level, it allows the user to navigate between different parameter groups within that menu: such as A, b, C, d, and etc. At the sub-group level, the user can navigate through a group of parameters: such as C1, C2, C3, and etc. At the parameter level, the user can select a specific parameter in a sub-group: such as C1-01, C1-02, and etc. At the entry level, the user can change values or select different options. Below is the menu tree of the alternate navigation.</p> <pre> graph TD     Root[ ] --- OM[Operation Monitor]     Root --- AT[Auto-Tuning]     Root --- Prog[Programming]     Root --- QS[Quick Setting]     Root --- MC[Modified Constants]     Root --- EH[Event History]     Root --- S[Settings]     Root --- MM[Monitor Menu]     Root --- U[U: MONITORS]          Prog --- T[T: MOTOR TUNING]     Prog --- A[A - INITIALIZATION PARAMETERS]     Prog --- b[b - APPLICATION]     Prog --- C[C - TUNING]     Prog --- d[d - SPEED REFERENCE]     Prog --- E[E - MOTOR PARAMETERS]     Prog --- F[F - OPTION SETTINGS]     Prog --- H[H - MULTI-FUNCTION TERMINALS  ]     Prog --- L[L - PROTECTION FUNCTIONS]     Prog --- n[n - ADVANCED PERFORMANCE SET-UP]     Prog --- o[o - OPERATOR RELATED PARAMETERS]     Prog --- P[P - MAGNETEK SET-UP]     Prog --- S2[S - ELEVATOR PARAMETERS]          style Root width:0px,height:0px   </pre>	<p>N/A</p>
<p><b>U13</b> Param Backup</p>	<p>It is possible to allow the user to save the drive's current parameters as drive defaults. These settings can be restored should the user in the future wish to revert the settings. This is particularly useful for control system manufacturers saving their specific drive configuration prior to dispatch.</p> <ul style="list-style-type: none"> <li>Parameter Backup - In this submenu, selecting "set user backup" will save the current settings as default and "wipe user backup" will remove the saved settings and allow the drive to be reset to Magnetek default settings.</li> <li>Parameter Restore - Selecting "Restore Backup" will restore the previously saved drive settings.</li> </ul>	<p>O2-03</p> <p>A1-03</p>

<2> Parameter accessible in Open Loop Vector control mode  
 <3> Parameter accessible in Closed Loop Vector control mode  
 <4> Parameter accessible in PM Closed Loop Vector control mode



## Display Menu Parameters

Table 15 ELEVATOR DATA D1 Submenu

D1 Parameter Name	Description	JVOP Reference
Speed Command	<b>Speed Command:</b> m/s Displays the commanded speed from the controller.	U1-91
Speed Reference	<b>Speed Reference:</b> m/s Displays the drive speed reference.	U1-16
Speed Feedback <2>, <3>, <4>	<b>Speed Feedback:</b> % <3>, <4> Displays the speed feedback measured from the motor.	U1-05
Speed Error <3>, <4>	<b>Speed Reference-Speed Feedback:</b> m/s <2>, <3>, <4> Shows the amount of speed error seen by the encoder.	U6-03
Encoder Speed	<b>Encoder Speed:</b> RPM Displays the measured speed from the encoder.	U1-92
Logic Outputs	<p><b>Output Terminal Status:</b> 1 = on, 0 = off Displays the output terminal status.</p> 	U1-11
Logic Inputs	<p><b>Input Terminal Status:</b> 1 = on, 0 = off Displays the input terminal status.</p> 	U1-10
SrIBytesReceived	<p><b>Serial Bytes Received:</b> number of byte Number of valid HPV Mode 1 Runtime bytes the drive received after a power up. <b>Note:</b> The value rolls over after 65535.</p>	U7-02
SerialBytesSent	<p><b>Serial Bytes Received:</b> number of byte Number of valid HPV Mode 1 response bytes the drive received after a power up. <b>Note:</b> The value rolls over after 65535.</p>	U7-03
Drive Status	<p><b>Internal Control Status:</b> 1 = on; 0 = off Displays the input terminal status.</p> 	U1-12



	During fault detect	
Analog A1 Level	<b>Terminal A1 Level:</b> % Displays the voltage input to terminal A1.	U1-13
Analog A2 Level	<b>Terminal A2 Level:</b> % Displays the voltage input to terminal A2.	U1-14
Torque Comp <3>, <4>	<b>Torque Compensation:</b> % <3>, <4> Torque Compensation Input value. Used for either Pre-Torque or Feed Forward operation, depending on Trq Comp Type (C1).	U1-90
Measured PPR	<b>Measured Pulses Per Revolution:</b> PPR Only for Incremental PM, this displays the measured encoder pulses for one revolution of the motor (determined by the Z index).	U1-93
Z-Edge Count	<b>Z-Edge Count:</b> Only for Incremental PM, this displays the amount of motor revolution (determined by index pulses from the Z index channel).	U1-94
Rx Com Status	<b>Rx Com Status:</b> Hex Serial communication status display	U7-08

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode

**Table 16 POWER DATA D2 Submenu**

D2 Parameter Name	Description	JVOP Reference
DC Bus Voltage	<b>DC Bus Voltage:</b> VDC Displays the measured DC bus voltage.	U1-07
Motor Current	<b>Output Current:</b> A Displays the measured output current to the motor.	U1-03
Motor Voltage	<b>Output Voltage:</b> VAC Displays the output voltage to the motor.	U1-06
Motor Freq	Displays the output frequency to the motor. Hz	U1-02
Torque Reference <2>, <3>, <4>	<b>Torque Reference:</b> % of rated torque <2>, <3>, <4> Displays the internal torque reference.	U1-09
Power Output	<b>Output Kilowatts:</b> kW Displays the output power (this value is calculated internally).	U1-08
Motor Overload	<b>Motor Overload Level:</b> % of motor amp rating Shows the value of the motor overload detection accumulator. 100% is equal to the Motor Overload detection level.	U4-16
Drive Overload	<b>Drive Overload Level:</b> % drive amp rating Displays the level of the drive overload detection level. A value of 100% is equal to the Drive Overload detection level	U4-17
Current PeakHold	<b>Current Peak Hold:</b> A Displays the highest current value that occurred during a ride.	U4-13
Heatsink Temp	<b>Heatsink Temperature:</b> C Displays the heatsink temperature.	U4-08
Drv Elapsed Time	<b>Drive Elapsed Time:</b> Hours Displays the cumulative operation time of the drive. The value for the cumulative operation time counter can be reset. Contact Magnetek for details. The maximum number displayed is 99999, after which the value is reset to 0.	U4-01
Fan Elapsed Time	<b>Fan Elapsed Time:</b> Hours Displays the cumulative operation time of the cooling fan. This value can be reset. Contact Magnetek for details. This value will reset to 0 and start counting again after reaching 99999.	U4-03
Fan Life Mon	<b>Fan Life Monitor:</b> % of expected operation time	U4-04



	Displays main cooling fan usage time in as a percentage of its expected performance life. This value can be reset. Contact Magnetek for details. The fan should be replaced when this monitor reaches 90%.	
Cap Life Mon	<b>Capacitor Life Monitor:</b> % of expected operation time Displays main circuit capacitor usage time in as a percentage of their expected performance life. The capacitors should be replaced when this monitor reaches 90%. This value can be reset. Contact Magnetek for details.	U4-05
IGBT Life Mon	<b>IGBT Life Monitor:</b> % of expected operation time Displays IGBT usage time as a percentage of the expected performance life. The IGBTs should be replaced when this monitor reaches 90%. This value can be reset. Contact Magnetek for details.	U4-07
Max Accel Amps	<b>Maximum Current at Acceleration:</b> A Shows the maximum current that occurred during acceleration.	U4-26
Max Decel Amps	<b>Maximum Current at Deceleration:</b> A Shows the maximum current that occurred during deceleration.	U4-27
Max Run Amps	<b>Maximum Current at Run:</b> A Shows the maximum current that occurred during ride at top speed.	U4-28
Slip Comp Value <1>, <2>	<b>Slip Compensation Value:</b> % <1>, <2> Shows the slip compensation value.	U4-30
Flux Position	<b>Flux Position:</b> Deg Displays the angular position of the PM flux position. This number is dependent on the setting of Enc Z-Pulse Offs (A5).	U6-13
PG Counter	<b>Pulse Generator Counter:</b> PPR Displays the number of pulses for speed detection.	U6-18

<1> Parameter accessible in V/f control mode

<2> Parameter accessible in Open Loop Vector control mode

<3> Parameter accessible in Closed Loop Vector control mode

<4> Parameter accessible in PM Closed Loop Vector control mode