IMPORTANT

Engineering Bulletin #117 Magnetek GPD 515 Start Up and Adjustment Guide

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Magnetek GPD 515 AC Drive Start Up and Adjustment Guide

1. Apply power to the controller. The LCD display should read:
Frequency Ref
U1-01= 0.00 Hz

2. Press the **MENU** key and then the ∧ key until the display reads:
Main Menu
Initialize

3. Press the **DATA/ENTER** key

4. Press the ∧ key 3 times until the display reads:
Init Parameters

5. Press **DATA/ENTER** key. The display will read:
A1-03 = 0
No initialize

6. Press the **DATA/ENTER** key.

7. Press the ∧ key 2 times until the display reads
2-wire initialize

8. Press **DATA/ENTER** key.

9. The display will read:
Entry Accepted

   Momentarily and then it will display
No initialize

10. Press the ∧ key 3 times to
Access Level
Quick Start

11. Press **DATA/ENTER** key.

12. Press the ∧ key 3 times until the display reads:
A1-01 = 4
Advanced

13. Press **DATA/ENTER** key.

14. The display will read:
Entry Accepted

   momentarily and then it will display
Access Level
Advanced Level

15. Press the ∧ key once. The display will read:
Control Method
_____

16. Press **DATA/ENTER** key.

17. Press the ∧ key. The display will read
    A1-02
    V/f control

18. Press **DATA/ENTER** key.

19. Press the **ESC** key. The display will read
    Main Menu
    Initialize

20. Press the ∧ key once. The display will read:
    Main Menu
    Programming

21. Press **DATA/ENTER** key. The display will read
    Group b
    Application

22. Press the ∧ key once. The display will read:
    b2 - DC Braking

23. Press **DATA/ENTER** key

24. Referring to the table below, modify the parameters as necessary so the value in the "Initial Setting" column is programmed into the drive.

Table1

Parameter Number	Function Name	Description	Increment / Units	Range	Default Setting	Initial Setting	Final Setting
A1-01	Parameter Access Level	0: Operation Only 1: User Program 2: Quick-start 3: Basic 4: Advanced	1	0-4	2	**4**	**4**
A1-02	Control Method Selection	0: V/f Control 1: V/f with PG feedback 2: Open loop vector 3: Flux vector	1	0-3	2	**0**	**0**
A1-03	Initialize Parameters	0: No Initialize 1110:User Initialize 2220:2-wire Initialize 3330:3-wire initialize	1		0000	**2220**	**2220**
b2-01	DC Injection Braking Start Frequency	Sets the output frequency at which DC injection braking will begin.	0.1 Hz	0.0-10.0	0.5	**3.5**	
b2-04	DC Injection Braking Time at Stop	Sets the amount of time the DC injection braking will be held on after the run command is turned off.	0.01 Sec	0.0-10.0	0.00	**0.8**	
C1-01	Acceleration Time 1	Sets the amount of time it will take for the drive to ramp from stopped to contract speed. Refer to Figure 1.	0.1 Sec	0.0-600.0	10.0	**2.0**	

Parameter Number	Function Name	Description	Increment / Units	Range	Default Setting	Initial Setting	Final Setting
C1-02	Deceleration Time 1	Sets the amount of time it will take for the drive to ramp from contract speed to approach speed. Modify as necessary based on car speed and stopping distance. Refer to Figure 1 and 2.	0.1 Sec	0.0-600	10.0	**1.5**	
C2-01	S-Curve Characteristic at Accel Start	Sets the amount a time that the integration from zero acceleration to the programmed acceleration rate will take. Refer to Figure 1 and 2.	0.01 Sec	0.0-2.50	0.00	**.2**	
C2-02	S-Curve Characteristic at Accel End	Sets the amount a time that the integration from the programmed acceleration rate to contract speed will take. Refer to Figure 1 and 2.	0.01 Sec	0.0-2.50	0.00	**.2**	
C2-03	S-Curve Characteristic at Decel. Start	Sets the amount a time that the integration from contract speed to the programmed deceleration rate will take. Refer to Figure 1 and 2.	0.01 Sec	0.0-2.50	0.00	**.2**	
C2-04	S-Curve Characteristic at Decel. End	Sets the amount a time that the integration from the programmed deceleration rate to the programmed minimum speed will take. Refer to Figure 1 and 2.	0.01 Sec	0.0-2.50	0.00	**.2**	
C3-01	Slip Compensation Gain	Increases output frequency and voltage to compensate for motor slip.	0.1% of output frequency	0.0-2.5	0.0	**1.0**	
d1-02	Frequency Reference 2	Sets the output frequency at leveling speed. Modify this parameter to obtain desired leveling speed.	0.1 Hz	0.00-400.0	0.0	**6.0**	
d1-03	Frequency Reference 3	Sets the output frequency at approach speed. Modify this parameter to obtain desired approach speed.	0.1 Hz	0.00-400.0	0.0	**12**	
d1-04	Frequency Reference 4	Sets the output frequency for one-floor-run speed. Modify this parameter to obtain the desired speed for a one-floor-run.	0.1 Hz	0.00-400.0	0.0	**30**	
d1-09	Jog Frequency Reference	Sets the output frequency at contract speed. Modify this parameter to obtain contract speed.	0.1 Hz	0.00-400.0	0.0	**60**	
E1-01	Input Voltage Setting	Sets the incoming AC voltage to the drive. Measure line voltage and program to observed voltage.	1V	155-255	230	**Line Voltage**	
E1-02	Motor Selection	0: General Purpose motor (TECF) 1: Blower Cooled motor (TENV or TEBC) 2: Vector motor	1	0-2	0	**1**	
E1-04	Maximum Output Frequency	Set to 60 for start up and then the value which produced contract speed in the "Jog Frequency" parameter.	0.1 Hz	40.0-400.0	60		
E1-05	Maximum Voltage	Set to the motor voltage value on the motor nameplate.	0.1 V	0.0-255	230	**Motor Data**	
E1-06	Base Frequency	Set to 60 unless motor rated frequency is different.	0.1 Hz	0.0-400.0	60	**Motor Data**	
E2-01	Motor Rated Current	Set to the motor current value on the motor nameplate.		0.00-1500.0		**Motor Data**	

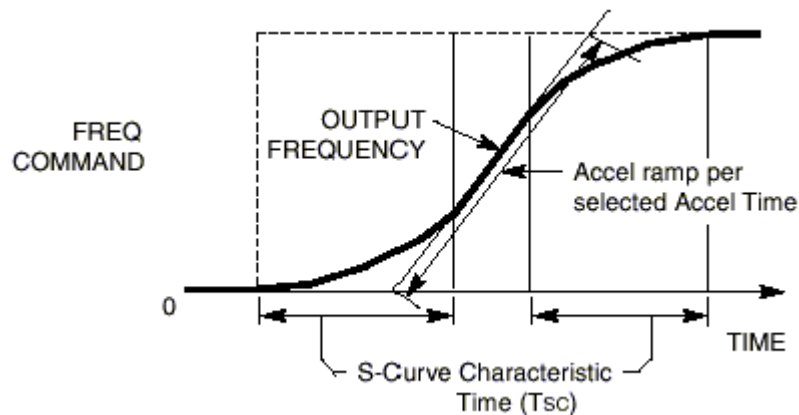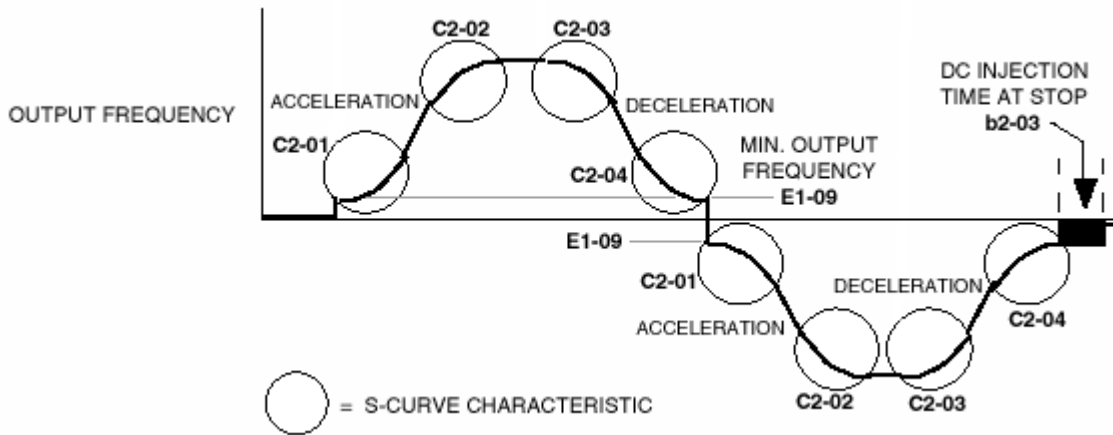| Parameter Number	Function Name	Description	Increment / Units	Range	Factory Setting	Initial Setting	Final Setting
E2-02	Motor Rated Slip	Calculate by dividing the motor nameplate RPM from 900 for 8 pole motors, 1200 for 6 pole motors, or 1800 or 4 pole motors and multiplying by 60. Subtract this number from 60 to get the correct value.	0.01 Hz	0.0-20.0	0		
E2-03	Motor No-Load Current	The amount of current required to run the motor at rated frequency with no load connected. If not available from motor nameplate, calculate by multiplying full load current by .5 for 1 – 5 HP motors, .4 for 5 – 15 HP, or .3 for 15 or higher HP.	0.01A	0.0-1500.0			
H1-06	Multi-function Input (Terminal 8)	Defines the assignment of the signal at terminal 8. Refer to manual.	1	0-77	8	**15**	**15**
H3-05	Multi-function Analog Input 1 (Terminal 16)	Defines the assignment of the signal at terminal 16. Refer to manual	1	0-1F	0	**1F**	**1F**
L3-01	Stall Prevention Selection During Accel	0: Disable 1: General Purpose 2: Intelligent	1	0-2	1	**0**	**0**
L3-04	Stall Prevention Selection During Decel	0: Disable 1: General Purpose 2: Intelligent 3: Stall Prevent with Resistor	1	0-3	1	**0**	**0**
L3-05	Stall Prevention Selection During Running	0: Disable 1: Decel time 1 2: Decel time 2	1	0-2	1	**0**	**0**
o2-01	LOCAL/REMOTE Key Selection	0: Disable 1: Enable	1	0,1	1	**0**	**0**
o2-06	Operation Selection When Digital Operator is Disconnected	0: Disable (operation continues) 1: Enable (motor coasts to stop and fault is displayed)	0	0,1	1	**0**	**0**

Figure 1

Figure 2