



Electromotive Systems

IMPULSE•P³ Series 2

Quick Reference Guide





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Manual No. P3S2REF-02A
Part Number: 144-44031




This guide is intended to assist you in quickly programming the IMPULSE•P³ Series 2 adjustable frequency motor control to enable you to get up and running quickly. It will guide you in obtaining basic starting characteristics for your application. For advanced programming of features please refer to the complete IMPULSE•P³ Series 2 adjustable frequency motor control instruction manual.


The basic programming of the inverter centers around three constants, n000, n001 and n002. Constant n000 controls the X-Press Programming™ of the drive, n001 sets the motor rated current and n002 is the password to enable programming of the inverter.


1. After applying power to the inverter, the display will show the output frequency 0.00.


2. At this point pressing the  key until the PRGM LED is illuminated. This will place you in the programming mode of operation and the display will read n000.

3. Press  key until n002 is displayed.

4. Press  and 00 will be displayed with the right hand digit blinking. The blinking digit is the digit that can be changed with the  and  arrow keys.




5. Press  key until the display reads 02.


6. Then . The display will temporarily read 02, then n002. The keypad is now unlocked to enable you to perform basic drive programming.


7. Press  until the display reads no00. From the following table, find the type of motion and speed control method that your application requires.

Data Value	Function
00	Initialize for Traverse - Two Speed Multi-Step Speed Control
01	Initialize for Traverse - Three-Speed Multi-Step Speed Control
02	Initialize for Traverse - Five-Speed Multi-Step Speed Control
03	Initialize for Traverse - Two-Step Infinitely Variable Speed Control
04	Initialize for Traverse - Three-Step Infinitely Variable Speed Control
05	Initialize for Hoist - Two Speed Multi-Step Speed Control
06	Initialize for Hoist -Three-Speed Multi-Step Speed Control
07	Initialize for Hoist -Five-Speed Multi-Step Speed Control
08	Initialize for Hoist -Two-Step Infinitely Variable Speed Control
09	Initialize for Hoist -Three-Step Infinitely Variable Speed Control

8. Press .


9. The Display will read the present data value at constant no00. Use the  to move the blinking digit to the desired position on the display. Use the  or  to set the data value to the desired value found in the above table.


10. Press  . The display will temporarily read the value selected then no00. The drive is now programmed for basic operation based upon your selection of the data entered into n000.

11. Press  . The display will now read n001.

12. Press  . Use  and the  and  keys to enter in the full load amps from the motor nameplate.


NOTE: If more than one motor is being controlled by the drive, enter in the total of all the motor full load amp ratings. This step is important to provide proper motor overload protection.

13. Press  . The display will temporarily read the value entered, then n001. The motor full load amp rating is now programmed in the drive.

14. Press  . The FREF LED will come on indicating that the drive is in the normal operating mode and is ready to accept a run command.

15. Issue a run command to the drive and check for acceptable operation. Depending on the speed control method selected the various speed set points can be changed as well as the acceleration and deceleration times.

16. If the speed(s) or the acceleration/deceleration times are not acceptable.

17. Press the  key until the PRGM LED is illuminated to return to the programming mode of operation.

18. Press the up arrow key until you reach the desired speed constant as listed below:

Speed 1–no03





Speed 2–no04


Speed 3–no05

Speed 4–no06







Speed 5–no07

NOTE: n007 also sets the upper speed for the infinitely variable speed control and in all cases no03 sets the minimum speed.

19. Upon reaching the desired speed constant, press the  and use the  key to position the blinking cursor in the desired digit and then use the  or  keys to set the desired speed.

20. Press the  . The display will temporarily read the value entered, then NOXX will appear, where XX will depend upon the speed constant that you changed.

21. Follow steps 19 through 21 until all of the speeds are set to the desired value.

22. To change the acceleration/deceleration rates, press the key until you reach:
n008 for acceleration time
n009 for deceleration time
23. Upon reaching the desired acceleration/deceleration constant, press . Use  key to position the blinking cursor on the digit that you wish to change and use the  or  keys to set the desired values.
24. Press . The display will temporarily read the value entered, then n0XX, where XX will depend upon whether you are on the acceleration or deceleration constants.
25. Press . The FREF LED will come on indicating that the drive is in the normal operating mode and is ready to accept a run command.
26. Issue a run command to the drive and check for acceptable operation. If operation is still not acceptable, repeat steps 18 through 26 to further adjust the drive.
27. If further assistance is needed, please refer to the complete IMPULSE•P³ Series 2 Adjustable Frequency Motor Controls Instruction Manual or call Electromotive Systems service department at 800/288-8178.



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