ELECTROMOTIVE SYSTEMS
by **M** MagneTek

IMPULSE•**P3**
Quick Reference Guide

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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, no-00, no-01 and n0-02. Constant no-00 controls the X-Press Programming™ of the drive, no-01 sets the motor rated current and no-02 is the password to enable programming of the inverter.

1. After applying power to the inverter, the display will show the output frequency 00.0.

2. At this point pressing the $\boxed{\frac{\text{PROGRAM}}{\text{DRIVE}}}$ key will place you in the programming mode of operation and the display will read
$no-00$.

3. Press $\boxed{\blacktriangle}$ key until $no-02$ is displayed.

4. Press $\boxed{\frac{\text{DATA}}{\text{ENTER}}}$ and 00 will be displayed with the left hand digit blinking. The blinking digit is the digit that can be changed with the $\boxed{\blacktriangle}$ and $\boxed{\blacktriangledown}$ arrow keys.

5. Press $\boxed{\frac{\blacktriangleright}{\text{RESET}}}$ and the blinking digit will move one digit to the right.

23. To change the acceleration/deceleration rates, press the [▲] key until you reach:

   no-08 for acceleration time
   no-09 for deceleration time

24. Upon reaching the desired acceleration/deceleration constant, press [DATA ENTER]. Use [► RESET] key to position the blinking cursor on the digit that you wish to change and use the [▲] or [▼] keys to set the desired values.

25. Press [DATA ENTER]. The display will temporarily read End then the value entered. Press display then no-XX, where XX will depend upon whether you are on the acceleration or deceleration constants.

26. Press [PROGRAM DRIVE]. The drive LED in the upper left hand corner of the display will come on indicating that the drive is in the normal operating mode and is ready to accept a run command.

27. 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.

28. If further assistance is needed, please refer to the complete IMPULSE•P3 Adjustable Frequency Motor Controls Instruction Manual or call Electromotive Sytems service department at 800/288-8178.

6. Press [▲] key until the display reads 02.

7. Press [DATA ENTER]. The display will temporarily read End then 02. Press display and the display will read no-02. The keypad is now unlocked to enable you to perform basic drive programming.

8. Press [▼] until the display reads no-00. 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

9. Press [DATA ENTER].

10. The Display will read the present data value at constant no-00. Use the [► RESET] 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.
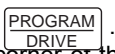
11. Press $\boxed{\frac{\text{DATA}}{\text{ENTER}}}$. The display will temporarily read Ɛ∩Ɗ then the value selected. Press display and then the display will read ∩0-00. The drive is now programmed for basic operation based upon your selection of the data entered into ∩0-00.

12. Press $\boxed{\blacktriangle}$. The display will now read ∩0-01.

13. Press $\boxed{\frac{\text{DATA}}{\text{ENTER}}}$ Use $\boxed{\frac{\blacktriangleright}{\text{RESET}}}$ and the $\boxed{\blacktriangle}$ and $\boxed{\blacktriangledown}$ keys to enter in the full load amps from the motor nameplate.

NOTE: If more then 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.

14. Press $\boxed{\frac{\text{DATA}}{\text{ENTER}}}$. The display will temporarily read Ɛ∩Ɗ then value entered. Press display and then the display will read ∩0-01. The motors full load amp rating is now programmed in the drive.

15. Press $\boxed{\frac{\text{PROGRAM}}{\text{DRIVE}}}$. The drive LED in the upper left hand corner of the display will come on indicating that the drive is in the normal operating mode and is ready to accept a run command.

16. 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.

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

18. Press the $\boxed{\frac{\text{PROGRAM}}{\text{DRIVE}}}$ key to return to the programming mode of operation.

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

    Speed 1–∩0-03
    Speed 2–∩0-04
    Speed 3–∩0-05
    Speed 4–∩0-06
    Speed 5–∩0-07

NOTE: ∩0-07 also sets the upper speed for the infinitely variable speed control and in all cases ∩0-03 sets the minimum speed.

20. Upon reaching the desired speed constant, press the $\boxed{\frac{\text{DATA}}{\text{ENTER}}}$ and use the $\boxed{\frac{\blacktriangleright}{\text{RESET}}}$ key to position the blinking cursor in the desired digit and then use the $\boxed{\blacktriangle}$ or $\boxed{\blacktriangledown}$ keys to set the desired speed.

21. Press the $\boxed{\frac{\text{DATA}}{\text{ENTER}}}$. The display will temporarily read Ɛ∩Ɗ then value entered. Press display then ∩0-XX will appear, where XX will depend upon the speed constant that you changed.

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