

Keyboard Overview

Keyboard Layout of Plus Controllers

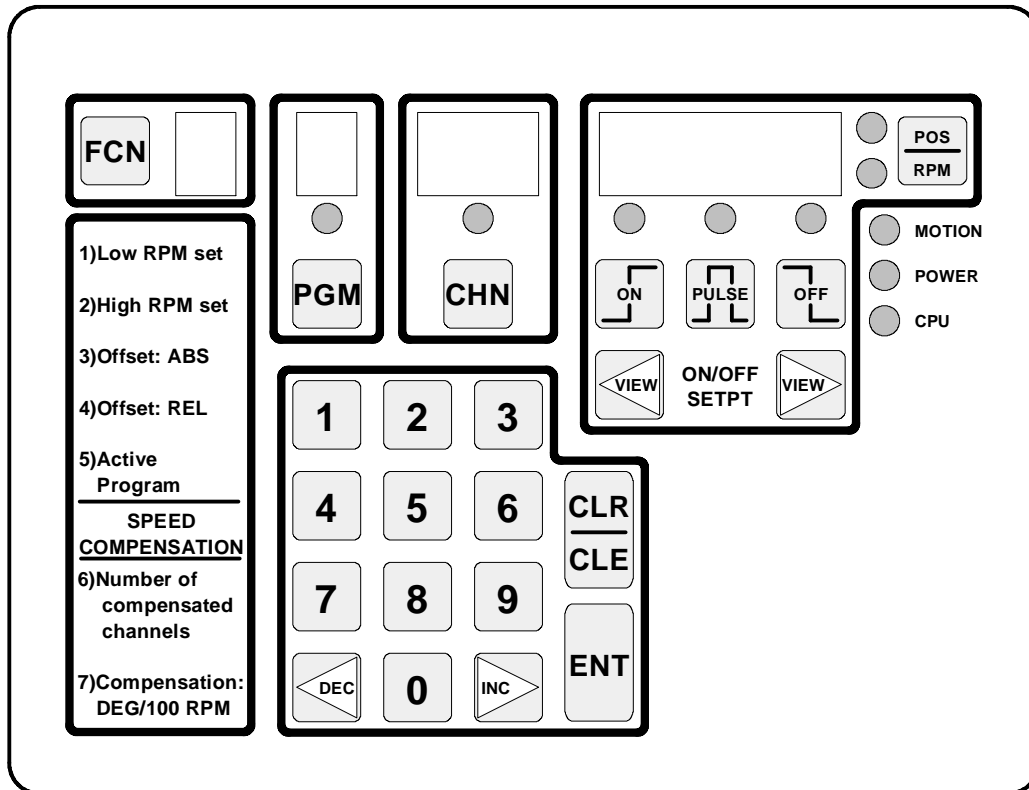


Figure 3.1 PLuS Controller Keyboard

The keyboard pictured above in Figure 3.1 corresponds to the PS-4001 and PS-4011 models. The PS-4000 is identical except that the Function label (items 1-7 beneath the FCN key) does NOT include items 5-7. (The PS-4000 does not allow the active program to be selected from the keyboard and does not have Speed Compensation)

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NOTE: “Numeric Entry” is the entering of a new setpoint value using the numeric keypad. ALL NUMERIC ENTRY MUST BE CONCLUDED BY PRESSING THE ENTER KEY. If an error is made during entry, the CLEAR key may be pressed to clear the display.

FUNCTION



Initiates selection of a programming function. Numeric entry is used after pressing this key to enter the desired function number.

PROGRAM



Initiates selection of a program for viewing or editing. Numeric entry is used after pressing this key to enter the desired program number.

CHANNEL



Initiates selection of a particular channel within a program for viewing or editing. Numeric entry is used after pressing this key to enter the desired channel number. If this key is pressed without first selecting a program, the currently active program is automatically selected for editing.

ON



Initiates the entering of a new on/off setpoint pair (“pulse”). Numeric entry is used after pressing this key to enter the “ON” setpoint. Channel setpoints are not affected until the “OFF” setpoint for the pulse has been entered.

OFF



Initiates the entering of a new “OFF” setpoint. A new “ON” setpoint must have previously been entered. Numeric entry is used after pressing this key to enter the “OFF” setpoint.

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PULSE



When viewing pulses, pressing this key will put the PLS in “pulse mode”. In this mode, incrementally moving one pulse setpoint automatically moves the other pulse setpoint by the same amount, keeping the total “ON” duration constant (See error code “E6” in Section 6). Successive presses of this key will toggle the unit between standard pulse mode and “multi-pulse mode”. The “multi-pulse” mode is characterized by a flashing LED above the pulse key. In “multi-pulse mode”, moving any pulse setpoint automatically moves ALL channel setpoints. Movement of a setpoint in pulse mode can ONLY be done with the INC and DEC keys. This can be done while the unit is in motion.

VIEW INCREASING



Moves to the next on/off setpoint in an increasing numerical direction. The LED's above the ON and OFF keys indicate whether the setpoint reached is an “ON” or OFF” setpoint. The display above the ON and OFF keys will contain the setpoint value. If no setpoints are programmed, no LED's will be illuminated, and “0” will be displayed. A channel must be selected before using this key, or an “E3 ordr” error message will be displayed.

VIEW DECREASING



Moves to the next on/off setpoint in an decreasing numerical direction. The LED's above the ON and OFF keys indicate whether the setpoint reached is an “ON” or "OFF” setpoint. The display above the ON and OFF keys will contain the setpoint value. If no setpoints are programmed, no LED's will be illuminated, and “0” will be displayed. A channel must be selected before using this key, or an “E3 ordr” error message will be displayed.

POS/RPM

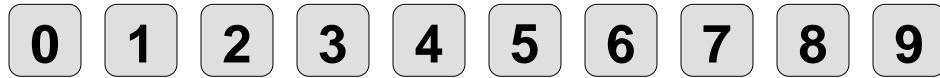


Toggles setpoint display between showing position and RPM when not in programming mode. When viewing channel setpoints, pressing this key will cause the PLS to return to displaying indicated encoder shaft position and channel on/off activity. IN ANY OTHER MODE, THIS KEY WILL CAUSE THE PLS TO ABANDON PROGRAMMING AND RETURN TO NORMAL OPERATING MODE.

In normal operating mode, successive presses of the POS/RPM key will toggle the display between the controller position and RPM.

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0 - 9



Numeric Entry keys. Pressing these keys will cause numbers to be entered into the appropriate display. The ENTER key must be pressed to conclude Numeric Entry.

DECREMENT



Used to decrease a setpoint by 1 (see note "E6" on page 6-2). Only active while viewing channel setpoints, changing the offset, or changing the amount of speed compensation.

INCREMENT



Used to increase a setpoint by 1 (see note "E6" on page 6-2). Only active while viewing channel setpoints, changing the offset, or changing the amount of speed compensation.

**CLEAR
CLR ENTRY**



Clears a display or flashing error condition. Used while viewing setpoints to initiate changing the currently viewed setpoint through Numeric Entry. Numeric entry is used after pressing this key to enter a new setpoint value. Used during numeric entry to clear display. Numeric Entry may NOT be used to change setpoint values (except high and low motion detection values) while the PLS is in motion.

ENTER



Concludes Numeric Entry. After pressing this key, the entire display will blank momentarily if the desired operation was successful.

NOTE:

Setpoint changes done through Numeric Entry will affect output channel operation immediately because outputs are updated out of fast RAM memory. Permanent memory (EEPROM) backup of the changes may take several seconds. **DO NOT POWER DOWN OR DISABLE PROGRAMMING IMMEDIATELY AFTER "ENTERING" A SETPOINT OR IT MAY NOT BE COMPLETELY STORED INTO EEPROM MEMORY.**