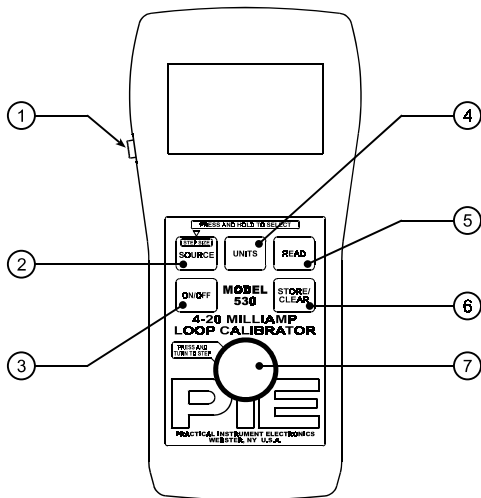


A. Basic Keypad Operations

① EZ-Check™ Switch/EZ-Step™ Pushbutton

Slide the switch to select the user stored values for calibration points. Press the button to adjust the output by the user defined step size. Press and hold the button to activate the auto step/ramp mode.



② SOURCE/STEP SIZE Button

Press **SOURCE** to change source modes. These are:

- Source Milliamps
- 2-Wire Transmitter Simulate

③ ON/OFF Button

Press **ON/OFF** to turn the Model 530 on or off.

④ UNITS Button

Press **UNITS** to change how current is displayed – either in milliamperes or % of 4-20 mA. Voltage is only displayed in Volts.

⑤ READ Button

Press **READ** button to change read modes. These are:

- Read Milliamps
- Power and Measure 2-Wire Transmitter
- Read Volts

⑥ STORE/CLEAR Button

In any source mode:

Press **STORE/CLEAR** to save the current reading in the EZ-Check™ HI or LO position. The EZ-Check™ switch must be set to HI or LO. The display will flash "STORED" to confirm.

In any read mode:

Press **STORE/CLEAR** to clear the values saved in the EZ-Check™ HI and LO positions. The display will flash "CLEARED" to confirm.

⑦ EZ-Dial™ Knob

Turn the EZ-Dial™ knob to adjust the output level. Press and turn to adjust 100X faster.

B. EZ-Dial™ Knob

Adjust the output up and down with the EZ-Dial™ knob. The increment is 0.001 mA (or 0.01 % if display units are % of 4-20 mA.) Press while turning to adjust 100X faster – 0.100 mA (or 1.00 %.)

C. EZ-Check™ Switch

The EZ-Check™ switch has three positions -- high, set, and low. Its position is shown at the left edge of the display with "HI" and "LO" indicators. Neither indicator indicates the middle position. Use of the EZ-Check™ switch depends on mode.

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Source Modes:

Slide the EZ-Check™ switch to the HI and LO positions to recall the settings stored in those positions. While in the HI and LO positions, dial the EZ-Dial™ knob to change the display. Press **STORE/CLEAR** to save new settings in the HI and LO positions. The display will flash "STORED" to confirm.

Hint: For faster calibrations, the position of the switch can be felt. This feature allows continuous monitoring of the device being calibrated without looking back at the Model 530 display. This is also useful in poor lighting or under difficult operating conditions.



Read Modes:

In read modes, the Model 530 calibrator records the maximum and minimum readings observed in each mode. Slide the EZ-Check™ switch to the HI and LO positions to display the readings. Press **STORE/CLEAR** to clear the readings. The display will flash "CLEARED" to confirm.

By default, the Model 530 has EZ-Check™ HI/LO Readings OFF. Refer to Model 530 Configuration, section H.

D. EZ-Step™ Pushbutton

The EZ-Step™ pushbutton is a feature only in source modes.

Press and hold the EZ-Step™ pushbutton for less than one second to cause the output to step up or down by the EZ-Step™ size. The EZ-Step™ direction is indicated on the display ( or ). Press the EZ-Dial™ knob to change the step direction.

Press the EZ-Step™ pushbutton for more than one second to activate auto step/ramp mode. The Model 530 will automatically step by the EZ-Step™ size. Press the EZ-Step™ pushbutton again to deactivate auto step/ramp mode.

Stepping and auto step/ramp limits are defined by the EZ-Check™ HI and LO settings. The step direction changes when a limit is reached.

By default, the Model 530 has EZ-Step™ OFF. Refer to Model 530 Configuration, section H.



E. EZ-Step™ Size and Direction

To Change the EZ-Step™ Size:

1. Press and hold the **SOURCE/STEP SIZE** button for more than $\frac{3}{4}$ of a second.
2. The display will indicate "EZ-STEP SIZE".
3. Turn the EZ-Dial™ knob to select other step sizes. The choices are:
mA display - 0.001, 0.010, 0.100, 1.000, 4.000, 8.000
% display - 0.01, 0.10, 1.00, 10.00, 25.00, 50.00
4. Press the **SOURCE/STEP SIZE** button again return to the normal display.

Note: If the EZ-Step™ option is turned off, the display will indicate "EZ-STEP OFF". Refer to Model 530 Configuration, section H.

To Change the EZ-Step™ Direction:

1. Press the EZ-Dial™ knob.
2. The display will change to show the EZ-Step™ direction selected ( or ).

F. Auto Step/Ramp

Auto step/ramp times are given in Table 1. In step modes (EZ-Step™ sizes 8, 4, and 1 mA or 50, 25 and 10 %) the output will change in discrete steps. In ramp modes, the output is approximately continuous. The Model 530 will detect high loop resistance/low supply in step modes. In ramp modes, these error conditions are not detected.

Table 1

Auto	EZ-Step™ Size		Step Time	Ramp Time (4-20 mA or 0-100 %)
Step	8.000 mA	50.00 %	10 seconds	(30 seconds)
	4.000 mA	25.00 %	10 seconds	(50 seconds)
	1.00 mA		1.9 seconds	(34 seconds)
		10.00 %	1.8 seconds	(21 seconds)
Ramp		1.00 %		20 seconds
		0.10 %		25 seconds
	0.100 mA			32 seconds
	0.010 mA			40 seconds
		0.01 %		83 seconds
	0.001 mA			134 seconds

G. Quick Reference Bar Graph

The Quick Reference Bar Graph indicates the input and output level to the Model 530 in % of 4-20 mA with 1% resolution. If the input or output signal is outside the normal operating range of the Model 530 the Quick Reference Bar Graph is replaced by an error message (see section I for errors.)

H. Model 530 Configuration

Auto Off - ON (default)/OFF

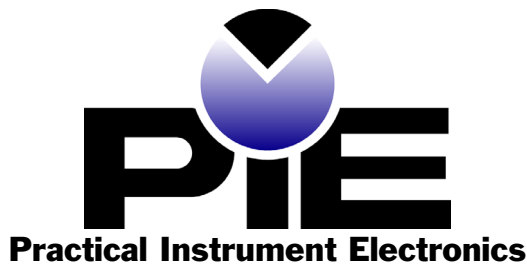
If Auto Off is ON, the unit will turn off after 30 minutes to save battery life, if there is no user activity. If Auto Off is OFF the unit will stay ON until it is turned off from the keypad. This is typically useful for manual loading or continuous use.

EZ-Step™ - ON/OFF (default)

If EZ-Step™ is ON the step size is adjustable as described in the instructions. If EZ-Step™ is OFF the EZ-Step™ pushbutton will be disabled and the step direction indicator will not be displayed.

HART® Compatibility Mode - ON/OFF (default)

The Model 530 has a HART® compatibility mode. This mode is useful when the devices being powered communicate using the HART® protocol. In this mode the Model 530 connects a 250 Ω load resistor in series with the output in both Source and Power Measure 2-Wire transmitter modes. This eliminates the



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requirement of an external 250 Ω load resistor. This resistor is typically shown in connection diagrams and manuals for HART[®] devices.

If HART[®] Compatibility Mode is ON, a 250 Ω load resistor is automatically switched in series with the output in Source and Power Measure 2-Wire Transmitter modes. The output compliance with HART[®] Compatibility Mode ON is 950 Ω at 20 mA.

If HART[®] Compatibility Mode is OFF there is no 250 Ω load resistor in series with the output. This will increase the output compliance voltage to drive 1200 Ω at 20 mA.

EZ-Check™ HI/LO Readings ON/OFF (default)

If the EZ-Check™ HI/LO Readings option is ON, the highest and lowest readings will automatically be saved in the HI and LO EZ-Check™ positions.

If this option is OFF the HI and LO positions will show the current reading.

Factory Reset ON/OFF (default)

If Factory Reset is ON, the unit will restore all factory defaults when the Model 530 is turned OFF and back ON. This will reset any changes made in the Model 530 Configuration options, returning the unit to its simplest factory configuration.

Instructions for Enabling and Disabling the Configuration options in the Model 530

1. Turn the Model 530 on.
2. Press the EZ-Dial™ knob while the "PRESS EZ-DIAL KNOB FOR CONFIGURATION" message is displayed.
3. Select options by turning the EZ-Dial™ knob until the arrow points to the desired option.
4. The option can be enabled or disabled by tapping the EZ-Dial™ knob.
5. Turning the Model 530 off to exit configuration.

I. Error Conditions

Source Milliamps:

"HIGH Ω " flashes in place of bar graph

Power Measure:

"CURRENT LIMITED" flashes in place of bar graph

2-Wire Transmitter Simulate:

"LOW SUPPLY" flashes in place of bar graph

Read Milliamps:

"CURRENT LIMITED" flashes in place of bar graph

Read Volts:

"OVERRANGE" flashes in place of bar graph