

Chapter 6 Units

6.1 Units Parameter Setup

P150.XX UNITS

specifies the weighing units which are used to calibrate the indicator. These include pounds, kilograms, ounces, grams, ft-lb and Newton-meters (for torque measurement), and the Custom Units which will be defined later in P155 (Custom Units are indicated by "???" which appear in the lower part of the dot matrix display).

P151.XX UNIT1

specifies the weighing units which will be displayed by the indicator after power-up. These are not necessarily the same as the calibration units set in parameter P150 above. The choices here are the same as for P150 with the additions of a second Custom Units and lb/oz. Lb/oz will let you display a weight in pounds with any fraction left over displayed in ounces.

P152.XX UNIT2

specifies the second weighing units selectable with the [UNITS] key during operation. The choices are the same as parameter P151 with the addition of "none". The "none" selection will disable the second units selection.

P153.XX UNIT3

specifies the third weighing units selectable with the

[UNITS] key during operation. The choices here are the same as parameter P152.

P155.- - Ucon1

allows input of a units conversion factor for the first custom weighing units. The Custom Units feature lets you establish custom units not available from the standard selections, such as tons or troy ounces. The conversion factor used to convert from the calibration units to the custom units will be entered in parameter P155. Simply key in the multiplication factor that will convert the calibration units (entered in P150) to the desired custom units. Refer to Table 6-1 Conversion Factors for a list of conversion factors. For example, if your calibration units are pounds and you want to use custom units of troy-ounces, you would enter the conversion factor of 14.5833 into this parameter (since there are 14.5833 troy-ounces in each pound) and press [ENTER]. Use the [PRINT] and [UNITS] keys to enter values on a 450 or the numeric keypad on a 455. These keys are the UP and RIGHT arrow keys described in previous chapters.

When you enter a conversion factor for custom units, the entered value is the ratio of the custom units to the calibration units. For example, if grams are the calibration units and the custom units are troy ounces, then enter 0.0321507 (troy oz./gm). However, if the calibration units are the custom units, then enter the ratio of custom units to pounds. For example, if troy ounces is the calibration units then enter 14.5833 (troy oz./lb.). It is not intended that torque units be mixed with force units, such as lb-ft with lb. Do not attempt to



Custom Units	Pounds	Ounces	Grams	Kilograms	Ft-Lb	Nm
Pennyweight (dwt)	291.6667	18.22917	0.643051	643.051		
Troy Ounce (ozt)	14.5833	0.911458	0.03215072	32.1507		
Grain (GN)	7000.0	437.5	15.432436	15432.36		
Carat (ct)	2267.57	141.7476	5.0	5000.02		
Ton (T)	0.0005					
Inch-Ounces (in-oz)					192.0	141.612
Inch-Pounds (in-lb)					12.0	8.85075
Kilogram-					13.8255	10.1972
Kilogram-Meters					0.138255	0.101972

Table 6-1, Conversion Factors

mix different types of units when setting up the indicator. If you do, the converted units may be meaningless.

6.1.1 Enter Name of Units

(Enter name of “units” with 450 keypad)

P157.- - Unam1

This parameter allows the input of up to five characters as the name of the first custom units. To accomplish this, the [PRINT] and [UNITS] keys take on the arrow key function as described earlier (See Figure 6-1). Press [UNITS] and an upper-case "A" will appear in the display. Then press [PRINT] to cycle through the possible selections of upper-case and lower-case letters, numbers and a set of punctuation and other symbols. (See Figure 6-2). Holding [PRINT] down will step you through the choices more quickly. If you go too far, use the [PRINT] and [UNITS] keys simultaneously to backup one. When the desired character is shown, press [UNITS] to move to the next character location. When finished, press [ENTER] and your selection will be shown on the display. Then press [SELECT] to advance to the next parameter. For example, if you are weighing in tons you could use the following procedure once parameter P157 is displayed to enter the correct name.

1. With the prompt **UNAM1 = XXXX** in the dot matrix display, press [UNITS] to move to the first character position. An "A" will appear.

2. Press and hold the [PRINT] key and cycle through the alphabet until the letter "T" appears. If you go too far, use the [PRINT] and [UNITS] keys simultaneously to back up.
3. Press [UNITS] to move to the second character position. Repeat step 2 to select the letter "O".
4. In a similar fashion repeat these steps until you have the name "TONS" spelled out.
5. When finished, press [ENTER] to save your entry. Press [SELECT] to move on to the next parameter.

(Enter name of “units” with 455 keypad)

The [UNITS] and [TARGET] keys double as **Up** and **Down** arrow keys respectively. While having accessed any mode or parameter which requires a character entry, the [UNITS] key will scroll through a set of ASCII characters. The [TARGET] key will scroll through the set in reverse. The [TARE] key or Right Arrow when pressed will move over to the next character position. The [ID] key or Left Arrow will backup to the previous character.

As entries are keyed into the entry buffer, the [PRINT/ENTER] key will complete the entry for the 455.

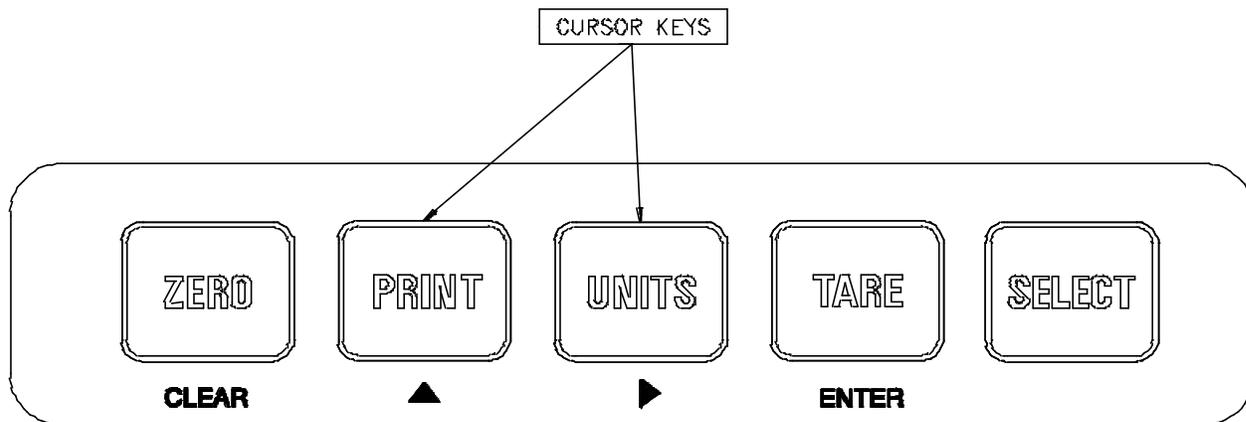


Figure 6-1 Model 450 Keypad Cursor Keys

