520 Digital Weight Indicator Operator Card



Do not open the indicator enclosure!

Refer all repairs and modifications to your distributor or service technician.

Front Panel Display and Keypad

The 520 display is divided into three areas (see Figure 1):

- The primary display consists of seven large, 14-segment digits used to display weight data.
- A two-digit annunciator shows the units associated with the displayed value: lb=pounds, kg=kilograms, oz=ounces, T=short tons, t=metric tons, LT=long tons, g=grams, GN=grains. The units can also be set to NONE (no units information displayed).

The 16-digit secondary display is used to display the weighing mode (Gross/Brutto or Net), status indicators, including standstill ($\blacktriangle \checkmark$) and center of zero ($\diamond \circ \diamond$), and Bar Graph and Checkweigh.

The symbols shown over the keys in Figure 2 (representing up, down, enter, left, right) describe the key functions assigned in setup mode. In setup mode, the keys are used to navigate through menus, select digits within numeric values, and increment/decrement values.



Figure 1. 520 Front Panel Display Areas

In the count mode, the displayed value is PC



Figure 2. 520 Front Panel



2.1 Indicator Operations

Basic 520 operations are summarized below:

2.1.1 Toggle Gross/Net Mode

Press the **GROSS/NET** key to switch the display mode from gross to net, or from net to gross. If a tare value has been entered or acquired, the net value is the gross weight minus the tare. If no tare has been entered or acquired, the display remains in gross mode.

Gross mode is indicated by the letters **Gr** (or **Br** for Brutto in OIML mode) on the secondary display; net mode is indicated by the letters **Nt**.

When piece count mode is enabled, the **GROSS/NET** key toggles between **Gross/Net/Piece Count**.

2.1.2 Toggle Units

Press the **UNITS** key to switch between primary and secondary units. The units identifier is shown to the right of the primary display.

2.1.3 Zero Scale

- In gross mode, remove all weight from the scale and wait for the standstill annunciator ().
- Press the ZERO key. The center of zero (→O←) annunciator lights to indicate the scale is zeroed.

2.1.4 Acquire Tare

- 1. Place container on scale and wait for the standstill annunciator (
- 2. Press the **TARE** key to acquire the tare weight of the container.
- 3. Display shifts to net weight and shows the letters **Nt** on the secondary display.

2.1.5 Remove Stored Tare Value

- 1. Remove all weight from the scale and wait for the standstill annunciator (
- 2. Press the **TARE** key (or, in OIML mode, the **ZERO** key). Display shifts to gross weight and shows the letters **Gr** on the secondary display.

2.1.6 Keyed Tare

- 1. Hold the **TARE** key for three seconds to display the current tare value.
- 2. Use the **RIGHT** and **LEFT** keys to select which digit to change. Use the **UP** and **DOWN** keys to decrement the value.
- 3. Press **ENTER** to accept the value.

2.1.7 **Print Ticket**

- 1. Wait for the standstill annunciator (\blacktriangleright).
- 2. Press the **PRINT** key to send data to the serial port.

2.1.8 Front Panel Setup

Hold the **UNITS** key for three seconds to enter front panel setup mode. Use front panel setup to change setpoint and/or checkweigh values and to set the time and date.

2.1.9 Display or Change Setpoint Value

To display a setpoint value, enter front panel setup mode. Press **DOWN** or **ENTER** and the first available setpoint number is displayed. The **LEFT/RIGHT** keys toggle through each setpoint that is operator accessible. Press **ENTER** to display the setpoint value.

NOTE: Setpoint Value and Preact Value are accessible from the front panel in weigh mode.

To change the setpoint value, use the **UP/DOWN** keys to increment/decrement the decimal value of the flashing digit. Press **ENTER** to sequence to the decimal point entry. **LEFT/RIGHT** keys adjust the decimal point placement. Press the **ENTER** key to accept the displayed value and return to the next value or setpoint number prompt.

NOTE: Some indicator configurations may not allow setpoint values to be changed through the front panel or may require a password to display or change the setpoint value.

2.1.10 Turn Setpoint On or Off

To turn a setpoint off at the front panel, enter front panel setup mode. Press **DOWN** or **ENTER** and the first available setpoint number is displayed. The **LEFT/RIGHT** keys toggle through each setpoint that is operator accessible. Press **DOWN** to turn the setpoint off and back on. Press **ENTER** to display and edit the setpoint value.

NOTE: Some indicator configurations may not allow setpoints to be turned off through the front panel or may require a password to turn the setpoint on and off.

2.1.11 Display or Change Checkweigh Value

To display a checkweigh value, enter front panel setup mode. Press **DOWN** or **ENTER** and the first available checkweigh value is displayed. The **LEFT/RIGHT** keys toggle through each checkweigh value that is operator accessible. Press **ENTER** to display the checkweigh value.

To change the checkweigh value, use the **UP/DOWN** keys to increment/decrement the decimal value of the flashing digit. Press **ENTER** to sequence to the decimal point entry. **LEFT/RIGHT** keys adjust the decimal point placement. Press the **ENTER** key to accept the displayed value and return to the next value or checkweigh value prompt.



- If the checkweigh function is enabled, setpoints remain configured but do not function until checkweigh is disabled.
- Some indicator configurations may not allow checkweigh values to be changed through the front panel or may require a password to display or change the checkweigh value.

2.1.12 Set Date

In front panel setup mode use the arrow keys to toggle to **Date**. Press **DOWN** or **ENTER** to enter the date in the format configured for the indicator: *MMDDYY*, *DDMMYY*, or *YYMMDD*.

2.1.13 Set Time

In front panel setup mode use the arrow keys to toggle to **Time**. Press **DOWN** or **ENTER** to enter the time in 24-hour format, then press the **ENTER** key.

2.1.14 Display Accumulator

The accumulator must be enabled before use in either normal mode or setpoint operations. Once enabled, weight (net weight if a tare is in the system) is accumulated whenever a print operation is performed using the **PRINT** key, digital input, or serial command. The scale must return to zero (net zero if a tare is in the system) before the next accumulation.

- 1. Press and hold the **G/N** key for three seconds to display the accumulated value if accumulator is enabled.
- 2. Press the **UP** key to clear the accumulator or the **PRINT** key to print the accumulator.

Note **PRINT** key **only** performs one Note accumulation. Weight must return to zero before another accumulation is allowed.

2.1.15 Count Display Mode

Count mode is entered by pressing the **MODE** (GROSS/NET) key from normal weighing mode when count mode is enabled. In count display mode, the display shows the number of parts rather than weight. The annunciator at the right side of the LCD display reads piece count (PC). Pressing the **PRINT** key sends the CFMT print format data string to the serial port.

If a sample weight has not yet been acquired, the indicator switches automatically to sample acquisition mode.

2.1.16 Peak Hold Mode

The peak hold function is used to determine, display, and print the greatest net weight read during a weighing cycle.

A weighing cycle ends when the print command is given, or when the peak net weight is manually cleared by the **ZERO** key. Peak hold tracks only net weight and operates independently of the display. For example, if the indicator is displaying gross weight, but AUTO peak hold is active, the display remains in gross, but the net peak weight is automatically printed when standstill is achieved at net zero.

Peak hold function is enabled in the setup mode. Parameter settings are found under the PK HOLD submenu, in first level program menu.

Note Setpoint, time and date, and checkweigh value changes from weigh mode (press and hold the UNITS key), accumulator display (press and hold the G/N key), keyed tare display (press and hold the TARE key), and password entry front panel entry modes

timeout after 10 seconds if there is no activity.



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