

1. GENERAL DESCRIPTION

1.1 OVERVIEW

The Toledo Model 8505 DigITOL Display is a digital display designed for use for the Model 2157 floor scale and the digital J-Box. It receives and displays weight information. A keyboard is provided to input tare and print commands.

1.2 FEATURES

- Highly visible low power Liquid Crystal Display.
- Keyboard setup and calibration minimizes installation time and expense.
- Built-in RS232 data output allows connection to a printer.

lb or kg - Indicates avoirdupois or metric mode in use.

ZERO - The zero legend illuminates when the weight is within ± 0.25 increments of the center of zero.

NET - Indicates tare has been taken and the display is showing net weight.

GROSS - Indicates that no tare has been taken.

2.1.2. The keyboard used on the Model 8505 is a five position membrane keyboard utilizing graphic symbols. An illustration of the keyboard is shown in Figure 2. Refer to Section 4.2.4 for descriptions of keys.

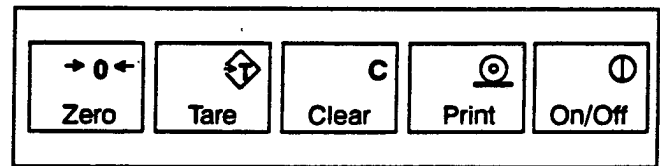


Figure 2
Keyboard Layout

2. SYSTEM DESCRIPTION

2.1 MAJOR BLOCKS

2.1.1 **Display PCB** - The display uses a low power custom liquid crystal display (LCD). Digits are 17.5mm (0.7 in.) in height. In addition to displaying data, the Display PCB accepts input data from the keyboard, regulates the wall transformer input power, and contains the solid state on/off switching circuitry. A layout of the display and an explanation of the symbols are shown below (Figure 1).

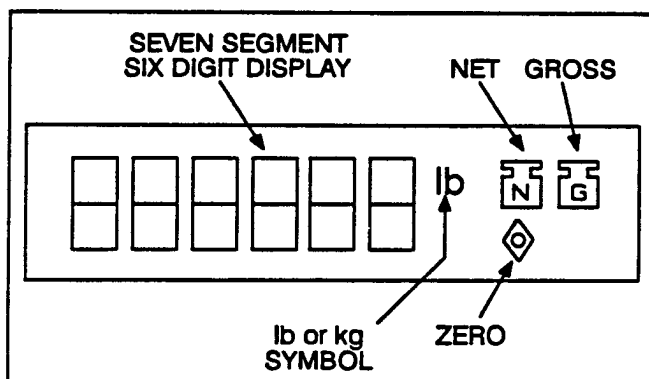


Figure 1
Display Layout

2.1.3 **Wall transformer** - The wall transformer converts 120 VAC/60 Hz input to a nominal 12 VDC, at 500 ma, output to the display.

2.2 INTERNAL FUNCTIONS

2.2.1 **Pushbutton Zero** - A front panel pushbutton provides rezeroing of the scale over a selectable range of $\pm 2\%$ or $\pm 20\%$ of scale capacity. The zero pushbutton must be depressed while there is "no motion", with the scale in the Gross Weighing mode, to be effective. Pushbutton zero operates by determining the difference between the actual weight and zero, to the nearest minor increment, and adding or subtracting this value to the actual weight to provide a corrected weight display. The "zero" cursor will turn on when the weight is within the center of the zero increment, unless AZM is disabled, in which case the "zero" cursor is disabled.

The pushbutton zero value also determines the zero capture range at power-up. When power is applied and the gross weight is within the $\pm 2\%$ or $\pm 20\%$ (which ever is selected), this weight will be added to (if negative) or subtracted from (if positive) the actual weight to generate a zero indication.