Avery Weigh-Tronix

WI-130 WDAC
User's Manual

UNITED STATES

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CANADA

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la Class A prescrites dans le Reglement sur le brouillage radioelectrique que edicte par le ministere des Communications du Canada.

CAUTION

Risk of electrical shock. Do not remove cover. No user service-able parts inside. Refer servicing to qualified service personnel.

Weigh-Tronix reserves the right to change specifications at any time.

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Table of Contents

Pages are numbered consecutively beginning with the cover page.

Specifications

Power Input	115 Volts AC, 500 mA 50/60 Hz single phase 230 Volts AC, 250 mA, 50/60 Hz single phase *Optional 10-32 volts DC and AC noted above*
Excitation	10 Volts DC or 10 volts AC square wave capable of driving up to twenty 350-ohm weight sensors or 1 Quartzell™ transducer
Operational Keys	Zero, Tare, Print, Units, Select, Enter, Escape, Clear, 0-9, Decimal Point and Five Soft Keys labeled per selected operational routine. All keys provide users with tactile and audio acknowledgment when they are activated.
Operational Annunciators	Displayed symbols indicate motion, center of zero, unit of measure and more.
Display	1" H x 4.3" W vacuum fluorescent dot graphic display (32 X 128 dot layout)
Display rate	Selectable, 0.1 to maximum readable updates
A to D Conversion Rate	60 times per second
Unit of Measure	Pounds, kilograms, grams, ounces, pounds and ounces and two selectable custom units
Capacity Selections	Up to 10,000,000 selectable
Incremental Selections	Multiples and sub multiples of 1, 2, 5
Decimal locations	88888888 pick any location relative to division size
Displayed Resolution	Up to 1 part in 10,000,000
Audio Output	Audio tone for key contact assurance or operational alarms
Time and Date	Battery protected real time clock is standard
Internal Resolution	1,000,000 counts analog, Quartzell™ transducer higher
Harmonizer™ digital filtering:	Fully programmable to ignore noise and vibration
Standard input and outputs:	Four communications choices: Com 1: RS232, RS-485/422 Com 2: RS232, 20 mA current loop (*One bi-directional signal per port*) Two set point I/O ports via OPTO 22 I/O modules
Available Options	- Multi scale inputs - DC operation at 10 to 32 VDC, 3.5 Amp - OPTO 22 I/O Modules - Remote Expanded Control Interface for 8, 16, 24, or 32 OPTO 22 I/O Modules - Alpha-numeric, PC style keyboard - Quartzell transducer interface - Analog interface
Operating Temperatures	14 to 104° F (-10 to 40° C), 10 to 90% relative humidity
Enclosure	Stainless steel wash down enclosure
Dimensions	12 3/8" H x 10 3/4" W x 5 1/4" D (31.43 cm x 27.31 cm x 13.34 cm)
Weight	17.5 lb, 7.8 kg
Agencies	NIST Class III/IIIL Certified COC# 95-008 Canadian Weights and Measures AM-5054 UL (115 VAC) CUL (115 VAC) FCC Class A
Warranty	2 year

Introduction

About This Manual

This manual covers the information you need to understand the operation of your WI-130 **W**eight **D**ata **A**cquisition **C**ontroller (WDAC).

Major sections of this manual are headed by titles in a black bar like *Introduction* above. Subheadings appear in the left column. Instructions and text appear on the right side of the page. Occasionally notes, tips, and special instructions appear in the left column.

WI-130 Weight Data Acquisition Controller

The WI-130 is a stand alone weight processor. Built into the WI-130 are the following standard features:

- 2 serial ports
- Time
- Date
- Stainless steel enclosure
- Large graphic display

The WI-130 front panel is shown in Figure 1. The front panel includes the following:

- 32 x 128 dot, vacuum fluorescent, dot addressable display
- Five variable function soft keys
- Numeric keypad
- SELECT key
- UNITS key
- PRINT key
- TARE key
- ZERO key
- CLEAR key
- ESCAPE key
- ENTER key
- Decimal point key

Figure 1
WI-130 Front Panel

WI-130 Front Panel

Main Display

The main display is a 32 x 128 dot, dot-addressable, vacuum fluorescent display. The ability to address each of the dots individually makes this display nearly as versatile as a computer screen. It can display graphics, words and numbers. This flexibility allows graphics and alphanumeric characters to be displayed at the same time. Below are a couple of examples of over 30 displays available on the WI-130.

This screen shows a large numeric readout, LBS and GROSS, a bar graph, and the soft key labels.

This screen shows the soft key legends, a checkweighing display, and a line of text for instructions.

Your system will be configured for your particular needs. The screen you see will depend on what weighing application you are performing.

Front Panel Keys

The keys on the front panel of the WI-130 are of two types, hard keys and soft keys. Hard keys are labeled directly and soft key labels appear on the display. Soft keys function differently at different times and their labels change as needed.

Hard Keys

Below are brief descriptions for each of the hard key functions:

Repeatedly press the **SELECT** key to scroll through the available weight reading displays. (Examples - gross, net, tare, minimum, maximum, etc.)

Press the **UNITS** key to scroll through the available units of measure.

Press the **PRINT** key to send data to a connected printer.

Press the **TARE** key to enter a tare weight, then press **SELECT** to see the net display mode.

Press the **ZERO** key to establish a zero reference. A center-of-zero icon will be displayed. During motion an **M** will appear below the center-of-zero icon.

Press the **ESCAPE** key to back out of menus or cancel a numeric entry without accepting the value.

Press the **CLEAR** key to clear values from the display.

Press the **ENTER** key to enter a keyed in value or accept a displayed choice.

The numeric keypad is for entering numbers.

Soft Keys

Soft keys are so-called because their function is not fixed. Function can change as mode of operations change or as the program for your particular setup changes.

Their are five soft keys located directly below the display. If the keys are needed during any operation, a label for each active key appears in the display directly above. There are only five key labels available at one time but this does not limit the potential usefulness of these keys. Programs can be created to enable one key to access another level of operation with five more key names and functions.

Weighing Operation

The following instructions step you through a typical weighing operation:

1. Power up the indicator. If the display mode is not the one you want to use, repeatedly press the **SELECT** key until the display value you want (gross, net, etc.) is displayed. . .

   Your indicator may be configured with only one display value. Selecting other display values may not be an option with your particular setup.

2. Zero the scale by pressing the **ZERO** key. . .

   Display should read zero weight and the center of zero symbol is displayed.

3. Place object to be weighed on the scale. . .

   An ***M*** appears on the display during scale motion and the weight is displayed.

Pushbutton Tare Operation

To perform a tare operation with the **TARE** key, follow these instructions:

1. Zero the scale by pressing the **ZERO** key. . .

   Display shows zero weight.

2. Place container to be tared on the scale and press the **TARE** key. . .

   The display changes to a NET display and shows zero weight.

3. Place material to be weighed on the scale. . .

   Net weight is displayed.

Keypad Tare Entry

For entry of a known tare weight follow these instructions:

1. With the indicator showing gross weight, key in the tare weight using the numeric keys. . .

   A tare entry display shows the weight that you key in.

2. Press **ENTER** to accept this tare entry. . .

   The net weight is displayed in net mode.

Specialized Operations

Due to the unlimited variety of applications available for the WI-130, it is not practical to describe all the possible specialized operations in this manual. Each application program will be unique.

Specialized operations will be set up to offer you soft key choices specific to the application and will guide you with messages on the display.

Accessing Program Serial

The time may come when you are asked by a service technician what the serial number of your software program is. There is a series of key strokes which will bring that number up on the screen. Below are the instructions for accessing this serial number.

1. Press and hold the **ESCAPE** key until the WI-130 beeps.
2. Within five seconds, key in the number 111 and press **ENTER**.
3. Press the soft key labeled **VIEW**.
4. Press the soft key labeled **VERS**. The serial number will appear on the display.

WI-130 Wall Mount Instructions

To mount the WI-130 to the wall using option kit PN29670-0016, follow these steps:

Use 5/16" steel bolts through the four 11/32" wide keyhole slots in the mounting bracket.

Use bolts, lockwashers and nuts for mounting onto sheet metal. The metal should be a minimum of 16 gauge (0.059") steel or 0.080" thick aluminum. For bolting into threaded holes in the metal, 1/4" minimum thread length is recommended.

Use 5/16" diameter lag bolts for fastening to wooden structures. There should be a minimum of 3/4" engagement of threads into the wood.

Directly mounting into sheetrock or plaster without reinforcement is not recommended.

Avery Weigh-Tronix

Declaration of Conformance to SMA Standard
Year of Declaration 2002
Production Meets Type

® *

We the manufacturer of

Model	Type	Certificate and Number	Issued by
WI-130	Electronic Indicator	NTEP CC 95-008A2	NCWM

Declare in our responsibility the conformance of the above listed models and types to the mentioned certificates and the requirements of the SMA standard.

This declaration becomes valid when the SMA Conformance Logo, having our name or trademark is applied to the device or its accompanying documentation.

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