WEIGH-TRONIX

WI-125 for Lift Trucks
Service Manual

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WI-125 Specifications

Dimensions:	9.37" W x 6.75" H x 3.75" D (23.8 cm x 17.1 cm x 9.5 cm)
Power:	10 to 90 VCD, 300 mA maximum
Display:	8 digits, 7-segment LCD, 0.6 inch high with annunciators and backlighting.
Display Rate:	One, two or five times per second
Agencies:	NIST Handbook 44, Class III, IIIL, 5,000 divisions Consumer and Corporate Affairs, Canada FCC Class A
Accuracy :	Class III, IIIL; 5,000 divisions Span: ±5.0 ppm/C Zero: ±.066 uV/C (-10 to 40°C) Span: ±10 ppm/C Zero: ±0.13 uV/C (-30 to 60°C)
Linearity:	±0.005% of capacity, maximum
Repeatability:	±0.005% of capacity, maximum
Hysteresis:	0.005% of capacity, maximum
Weigh bar drive capacity:	Up to four 350 ohm weigh bars.
Environment:	-10 to 40°C (14 to 104°F) for HB-44 specs 10 to 90% relative humidity
Internal Resolution:	0.5mV/V = 400,125 counts
A to D conversion rate:	30 times per second
Analog Range:	-0.40 to +0.85 mV/V
Capacity:	.00001 to 999999, programmable to any number between these limits.
Divisions:	.0001 to 20000, programmable to any division size between these limits.
Push Button Zero Range:	0 to ±100% of capacity; programmable independent positive and negative limits; unit will not allow zeroing beyond capacity.
Tare:	The unit may be configured to have pushbutton tare which can function as a scroll tare register. Pushbutton tare and scroll tare may tare only positive gross weights up to the capacity of the unit. Scroll tare allows numeric entry of a tare value using two keys to enter the value.
Motion Detection Window:	Programmable from 0 to 999999 divisions, decimal entries are accepted.
Automatic Zero Tracking:	Window: Programmable from 0 to 999999 divisions, decimal entries are accepted. Net Mode Tracking: May be enabled or disabled. Rate: 0.2 division per second Starting Delay: 2 seconds
Linearity Adjustment:	Second order correction provides smooth curve fit through three points--zero, linearity, span.
VIBRATION COMPENSATION	
Analog Low Pass Filter:	Two section with .10 second time constant for low power analog and .06 second time constant for standard analog.
Software Low Pass Filter:	One section with .05 second time constant.

Introduction

This service manual will help you prepare your WI-125 indicator for use. This manual covers the following:

- Introduction
- Operational Modes
- Sealing the Indicator
- Keyboard
- Configuration Mode

Operational Modes

Operations Mode

The WI-125 operates in three modes:

- operations mode
- test mode
- configuration mode

Operations mode contains all normal weighing operations. In this mode you can view or set the following parameters if the unit is so configured:

- pushbutton tare
- time
- date
- light (backlight)

Any combination of these items can be secured behind a security code. Any items secured by the code number can be viewed but not changed.

Operations mode is fully explained in the *User's Manual*.

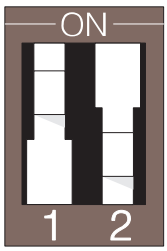
Test Mode

Use this mode to perform tests on the WI-125. The test mode is covered in the *User's Manual*.

Configuration Mode

Use this mode to setup options and program the operation of the scale and indicator. Configuration is explained fully in the *Configuration Mode* section of this manual.

Sealing the Indicator



The WI-125 can be sealed. If sealed, no configuration items can be changed in the configuration menu. Seal the unit by placing switch S1-1 in the OFF position. Unseal the unit by placing S1-1 in the ON position. Remove the front panel of the indicator to gain access to switch S1-1. The switch is located near the bottom corner of the PC board behind the display and looks like the diagram at left.

Keyboard

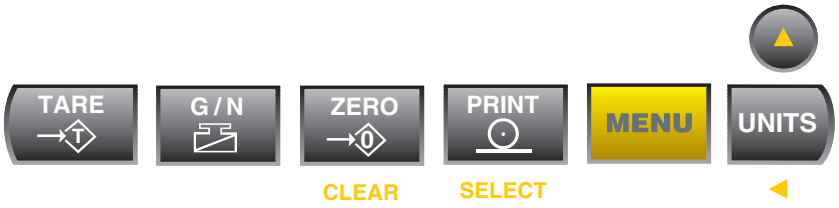


Figure 1
WI-125 Keyboard

Enters a pushbutton tare in gross/net operation. This key's factory default is OFF and it must be enabled for use.

Accesses the gross weighing mode from any other function and activates the net weighing mode if a tare is active.

CLEAR

Zeros the scale in gross or net weigh mode. This button also clears scrolled digits on the display before they are accepted.

SELECT

Sends a print command and is used to select menu items.

Used to access menus and move among choices in a menu.

Changes the unit of measure during operations mode and moves a digit inserted with the - key one space to the left. The factory default for this key is set for lbs only.

Lets you scroll numerical values.

Entering Numbers with Arrow Keys

*If at any time you enter an incorrect number, press **CLEAR** to delete the number, then re-key.*

The arrow keys are used to enter numbers throughout different configuration selections. Refer to this section when you need to enter a number or numbers.

Example: To key in the number 603

Press the ↑ key repeatedly until the 6 appears on the display.
Press the ← key once to move the 6 one space to the left.
Press the ↑ key until the 0 appears.
Press the ← key once to move the 60 one space to the left.
Press the ↑ key until 3 appears.
To exit to normal weigh mode, press **G/N**.

Configuration Mode

This section of the manual explains how to view and set up parameters in the configuration mode. Follow the configuration menu and instructions in Figure 2 to set up the WI-125 indicator to suit your specific needs. Below are explanations for each section of the menu. The non-bold heading for each section is the pathway you follow on the configuration menu to get to the parameter or parameter options shown in bold text.

Sidestepping Security Code Entry to Configuration
In case you forget the security code or the security code is altered without your knowledge, access the configuration menu as follows: First, make sure switch S1-1 is in the OFF position. Then enter the default code number, 1. Get into the configuration menu as instructed in the key to Figure 2. When ***CODE NUMBER*** is displayed in the menu, flip switch S1-1 from the OFF position to the ON position. Understand that opening the indicator to access the switch unseals the indicator! Then enter a new code number--twice, as the display prompts. Now you have complete access to the configuration menu.

Setup, Scale, Units-

Pounds, 1000g

Under each unit of measure you have the option of selecting *ON* or *OFF.* Choosing the *OFF* option under a unit of measure disables that unit of measure. If a unit is disabled, it will not appear in the configuration menu under *CAPACITY* or *DIVISION* nor will you be able to choose it during weighing procedures.

Setup, Scale, Units, Capacity-

Pounds, 1000g

This menu section lets you set the scale capacity for those units of measure enabled under *UNITS*. For lb/kg scales to be sealed in the USA, you must be sure the capacities are within one division. For example, if you want a 10,000 by 2 lb scale, the kg capacity must be 4536 kg. Note that the indicator will show over range at 10,000 lb. If a 2.5% over range is desired, you must enter 10250 lb and 4695 kg as the capacities in this example.

Setup, Scale, Units, Capacity, Division-

Pounds, 1000g

This option lets you set the division size for the units of measure enabled under *UNITS*.

One feature not readily apparent is that the number of displayed leading zeros can be specified. For example; for 10 pound divisions, if you want 5 zeros displayed when no weight is on the scale, key in 00010 for a division size. The display will read 00000 when the scale is empty. If you want two zeros displayed when the scale is empty, key in a division size of 10.

Setup, Scale, Units, Capacity, Division, Zero-

-Percent, Percent

With this option you can set the plus and minus percent of capacity the indicator can zero. For example, if the capacity of the scale is 10000 lb and the zero range is ±2%, key in 2 for both the positive and negative ranges. You may key in decimal values.

Setup, Scale, Units, Capacity, Division, Zero-

Stability

This option lets you set the size of the motion detection window in divisions. You may enter decimal values less than one or up to 999999 which turns off the motion detection.

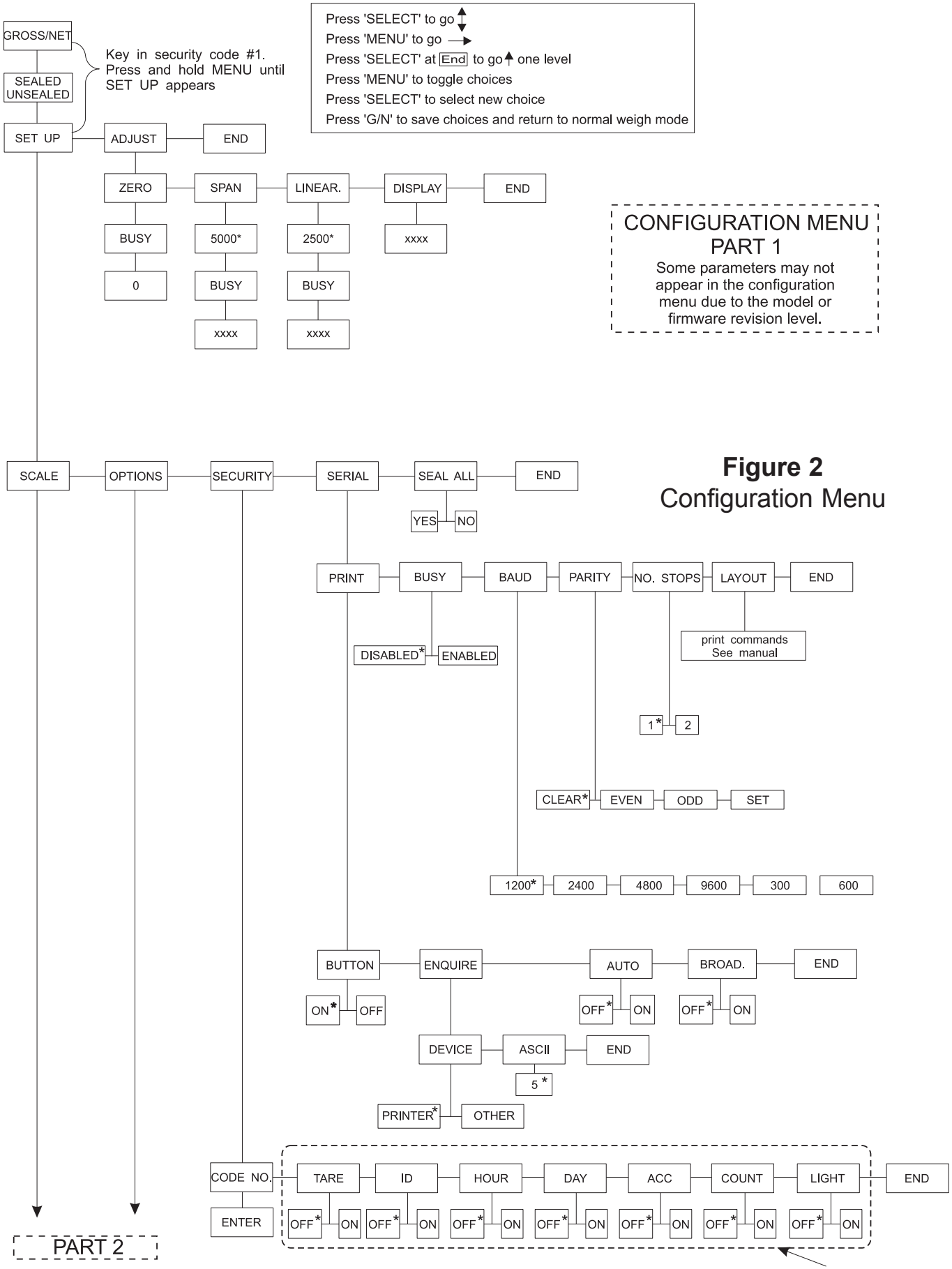
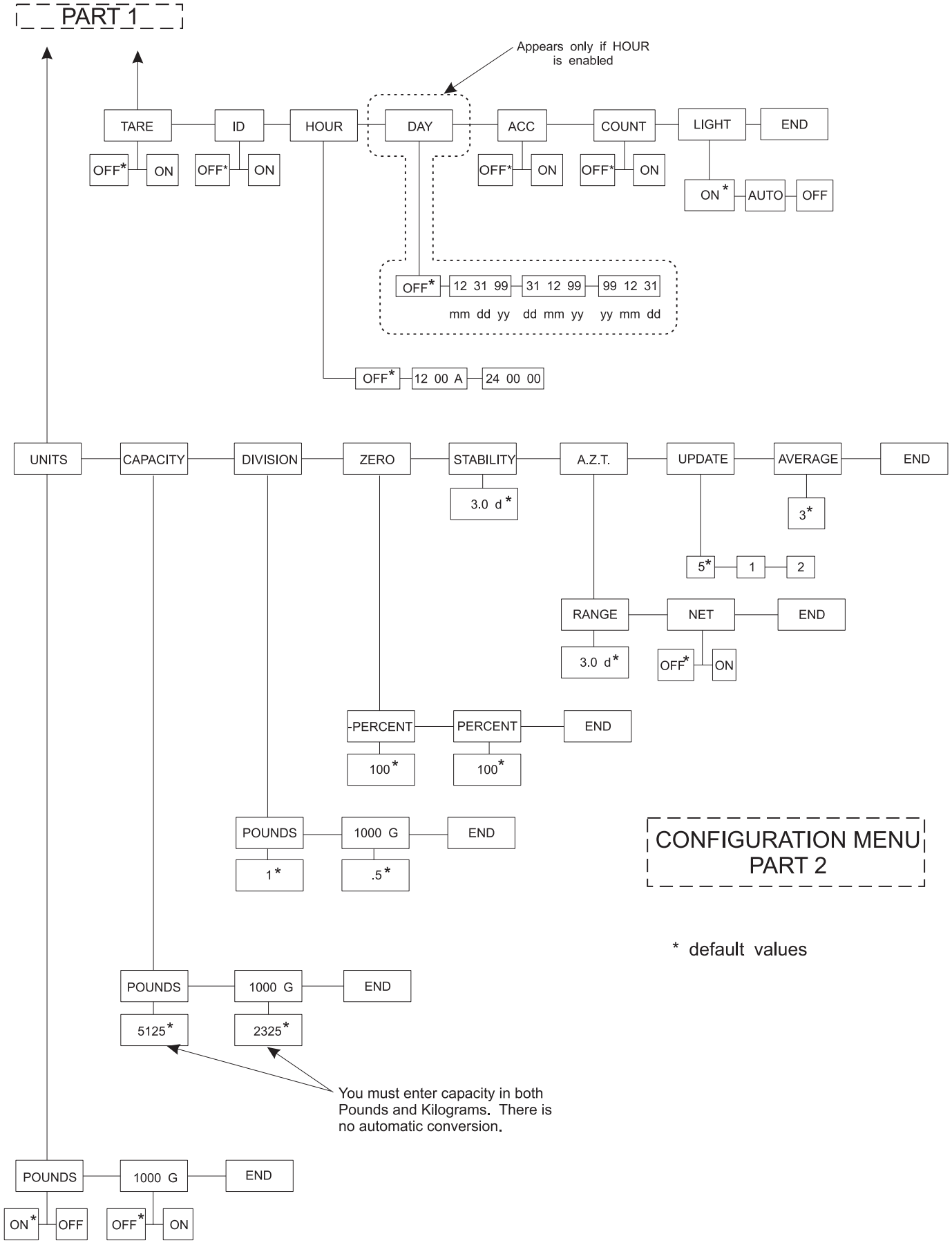


Figure 2
Configuration Menu


PART 1
Appears only if HOUR is enabled
TARE
ID
HOUR
DAY
ACC
COUNT
LIGHT
END
OFF* ON
OFF* ON
OFF* ON
OFF* ON
ON* AUTO OFF
OFF* 12 31 99 31 12 99 99 12 31
mm dd yy dd mm yy yy mm dd
OFF* 12 00 A 24 00 00
UNITS
CAPACITY
DIVISION
ZERO
STABILITY
A.Z.T.
UPDATE
AVERAGE
END
3.0 d*
3*
5* 1 2
RANGE
NET
END
3.0 d*
OFF* ON
-PERCENT
PERCENT
END
100*
100*
POUNDS
1000 G
END
1*
.5*
CONFIGURATION MENU
PART 2
* default values
POUNDS
1000 G
END
5125*
2325*
You must enter capacity in both Pounds and Kilograms. There is no automatic conversion.
POUNDS
1000 G
END
ON* OFF
OFF* ON

Setup, Scale, Units, Capacity, Division, Zero, Stability, A.Z.T.-

Range, Net

Range - With this option you can set the ±automatic zero tracking window in scale divisions. To turn off AZT, enter a range of 0.

Net - If an AZT range is set, *NET* will appear in the menu. This option lets you choose to enable AZT during net weighing operations (ON) or disable it (OFF). The gross weight must be zero for AZT to work in net mode.

Setup, Scale, Units, Capacity, Division, Zero, Stability, A.Z.T., Update-

5, 1, 2

Choose the rate at which your display updates information, 1, 2, or 5 times per second. Five is the default value.

Setup, Scale,Units, Capacity, Division,, Zero, Stability, A.Z.T., Update-

Average

This option allows you to choose the number of display period(s) over which the data are internally averaged prior to being displayed. Any number between 1 and 10 may be enetered. Five is the default value.

Setup, Scale, Options-

Tare

Choosing ON enables the pushbutton tare. Choosing OFF disables the pushbutton tare. If pushbutton tare is disabled, **TARE** will not appear in the operations menu

Setup, Scale, Options, Tare-

ID

Choosing *ON* enables the ID number. *OFF* disables the ID number. If ID is disabled, *ID* will not appear in User's menu or the *SECURITY* section of this menu.

Setup, Scale, Options, Tare, ID-

Hour

With this option you can choose to have the clock disabled (OFF) or the mode of clock you want. You can choose the 12 hour clock display or the 24 hour clock display. If the clock is disabled, HOUR will not appear in the SECURITY section of this menu and DAY will not appear in the OPTIONS or SECURITY section of this menu.

Setup, Scale, Options, Tare, ID, Hour-

Day

This option lets you choose to disable the calendar (OFF) or choose the mode of calendar display you want. You can choose to display the days (**dd**), months (**mm**), and year (**yy**) as **mm dd yy**, or **dd mm yy**, or **yy mm dd**. If DAY is disabled, DAY will not appear in the SECURITY section of this menu.

Setup, Scale, Options, Tare, ID, Hour, Day-

ACC

Choose to turn the accumulator ON or OFF.

Setup, Scale, Options, Tare, ID, Hour, Day, ACC-

Count

Choose to turn the Count ON or OFF. Count is the number of times you have added to the accumulator.

Setup, Scale, Options, Security-

Code No.

This option lets you enter a personalized security code number.

Setup, Scale, Options, Security, Code No.-

Tare, ID, Hour, Day, Acc, Count, Light

Under each item you have the option of choosing OFF to leave the option unlocked or choosing ON to lock the option behind the security code. If ON is chosen you can view but not change that parameter value in the operations menu.

Setup, Scale, Options, Security, Serial, Print-

Button

Choosing OFF disables the front panel **PRINT** button. Choosing ON enables the front panel **PRINT** button.

Setup, Scale, Options, Security, Serial, Print, Button-

Enquire

This sub-menu allows you to choose a printer or other device which will send an enquire code to the indicator. You may select the ASCII code number you wish to act as the enquire code number. ASCII decimal 0005 is the default value. If a device sends the enquire code number to the indicator, the indicator will transmit weight data. If a computer sends the enquire code number, the Button, Auto and Broad. selections are overridden and will not function.

Setup, Scale, Options, Security, Serial, Print, Button, Enquire-

Auto

With auto print enabled the indicator automatically transmits weight data when the scale weight stabilizes at greater than 1% of capacity. To print again, scale weight must fall below 1% of capacity and stabilize above 1% of capacity again. OFF disables the auto print feature. ON enables the auto print.

Setup, Scale, Options, Security, Serial, Print, Button, Enquire, Auto-

Broad.

Broad. stands for broadcast. If you enable (ON) broadcast, weight data is transmitted at the display rate. Choosing OFF disables the broadcast. If broadcast is enabled, the Button, Enquire, and Auto selections are overridden and will not function.

Setup, Scale, Options, Security, Serial, Print, Busy-

Disabled, Enabled

Disables or enables the hardware ready/busy line. If your printer does not have a ready/busy line, this parameter must be set to disabled. If your printer has a ready/busy line, you can enable this parameter so the indicator will know if the printer is busy or ready.

Setup, Scale, Options, Security, Serial, Print, Busy, Baud-

9600, 300, 600, 1200, 2400, 4800

This option lets you choose the baud rate for your printer or device.

Setup, Scale, Options, Security, Serial, Print, Busy, Baud, Parity-

Clear, Even, Odd, Set

This option lets you choose parity as even, odd, clear (logic 0 or space), or set (logic 1 or mark).

	Data Bits	Stop Bits	Parity
Set	7	2	none
Clear	8	1	none
Mark	7	2	none
Space	8	1	none
Odd	7	1 or 2	odd
Even	7	1 or 2	even

Setup, Scale, Options, Security, Serial, Print, Busy, Baud, Parity, No. Stops-

1, 2

With this option you can set the number of stop bits as 1 or 2.

Setup, Scale, Options, Security, Serial, Print, Busy, Baud, No. Stops-

Layout

Use this print-layout option to customize the physical arrangement of your printed information.
This section assumes you have the time/date option card and that the parameters are all enabled.
The next several pages deal with the layout of your printed output. The rest of the documentation on configuration follows this layout section.

You may print the following items:

- Time
- Gross weight
- Tare weight
- Custom wording you choose
- ID #
- Date
- Net weight
- Displayed weight
- Bare weight

These are the print commands you use to print these items:

Print Command	Item
HOUR	Time
DAY	Date
GROSS	Gross weight
NET	Net weight
TARE	Tare weight
DISPLAY	Displayed weight
ASCII	Custom wording (ASCII string)
BARE	Weight without labels (e.g. G, T, N, lb, kg)
ID	Eight digit numeric ID#

The layout menu in Figure 4 shows the default order of print commands, and Figure 3 shows a sample of the default printout generated when you press the **PRINT** key on a new indicator.

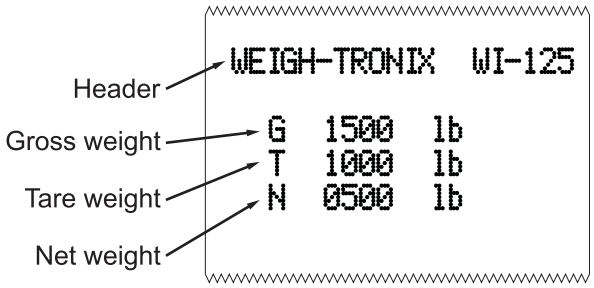


Figure 3
Default Printout As Configured on a New Indicator

Customizing the Layout Menu

The default layout menu can be changed to suit your needs. Any of the seven print commands can be deleted or rearranged to accomplish this customization.

As in the other WI-125 menus, the **SELECT** key opens up the next level of the menu. There is one more level of information under the print commands in the layout menu. This information may be one of two types:

- an ASCII string or
- a layout submenu.

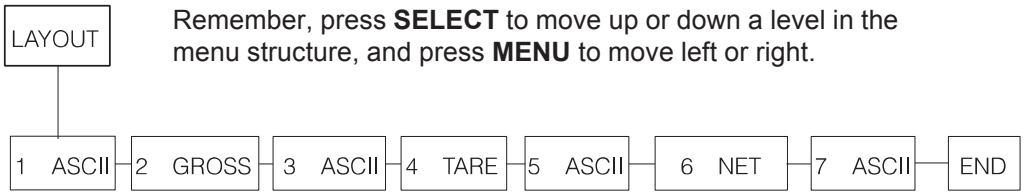


Figure 4
Default Layout Menu

ASCII Strings

*ASCII is an acronym for **A**merican **S**tandard **C**ode for **I**nformation **I**nterchange. ASCII codes are just numbers a computer can translate into letters, numbers and instructions. See Table 2.*

ASCII strings are stored under the ASCII print commands, such as Nos. 1, 3, 5, 7, etc. (see Figure 4). An ASCII string is a sequence of ASCII code numbers. Each code number is preceded on the indicator display by a sequence number. See Figure 5. You view these sequence numbers and ASCII code numbers by repeatedly pressing **MENU**. These ASCII strings contain the codes for your custom wording.

Figure 5 shows the default ASCII string under the ***1 ASCII*** print command. Table 1 shows the relationship between this sequence of codes and the output of the printer. You can change the ASCII string or delete it entirely to suit your needs. To delete an ASCII print command from the layout menu you first need to delete the entire ASCII string which is stored in that ASCII print command.

As you enter ASCII codes, the display may read ***FULL*** when you try to enter a code number. This means the memory allocated to the print layout is full. You must rearrange or delete some of the items you want printed for your customized printout.

Find complete instructions for these procedures in the section *Examples and Step by Step Instructions*.

Layout Submenu

Under each non-ASCII print command (*GROSS, TARE*, etc.) is a layout submenu. The layout submenu contains all seven print commands and a *DELETE* command. From this submenu you select what you want printed and in what order. The same submenu is available in every case, but the currently selected item is always offered first. See Figure 6.

Find complete instructions for these procedures in the section *Examples and Step by Step Instructions*.

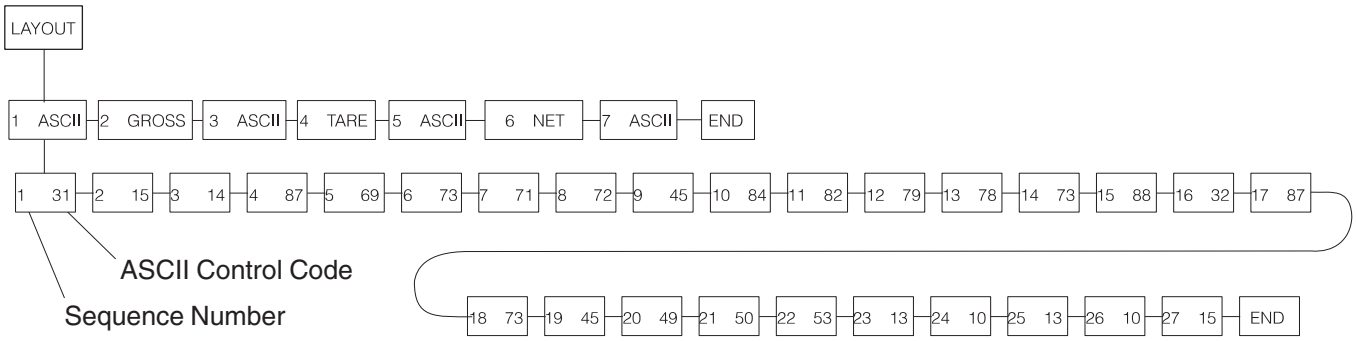


Figure 5
ASCII Control Code under the Print Command, 1 ASCII

In Figure 5, the **MENU** key advances you through the ASCII control-character displays.

The **SELECT** key returns you to the *1 ASCII* display.

Table 1
ASCII Control Characters under the Print Command, 1 ASCII

#31-	Sets IMP printer to 40 column print mode
#15-	Makes double wide characters until a carriage return
#14-	Makes double high characters until a carriage return
#87-	W
#69-	E
#73-	I
#71-	G
#72-	H
#45-	-
#84-	T
#82-	R
#79-	O
#78-	N
#73-	I
#88-	X
#32-	Space
#87-	W
#73-	I
#45-	-
#49-	1
#50-	2
#53-	5
#13-	Carriage return (CR)
#10-	Line feed (LF)
#13-	Carriage return (CR)
#10-	Line feed (LF)
#15-	Sets next line's characters to double wide

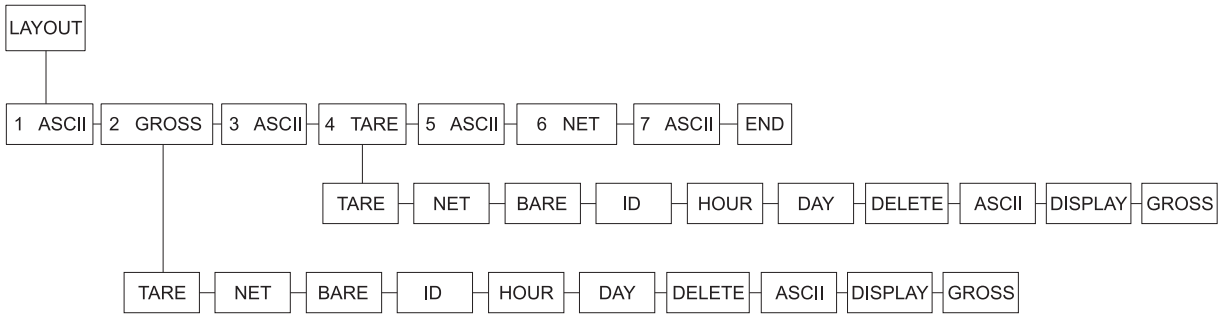


Figure 6
Layout Submenu

Examples and Step by Step Instructions

Example A: If you want to change the second print command in Figure 4 from *2 GROSS* to *2 HOUR,* you scroll to the *HOUR* print command in the submenu under *2 GROSS* and press **SELECT** to select it. The print command *2 GROSS* is now changed to *2 HOUR.*

Example B: If you want to delete the second print command in Figure 4, *2 GROSS,* scroll to *DELETE* in the submenu under *2 GROSS* and press **SELECT.** This deletes the *2 GROSS* print command from the layout and *3 ASCII* becomes *2 ASCII, 4* becomes *3, etc*.

Below is a list of procedures to customize your layout. The steps for each procedure are explained below the list. Use the appropriate procedure or procedures to customize your layout to your liking. These step by step instructions relate to the layout shown in Figure 5.

- Deleting one ASCII code from an ASCII string
- Deleting all the ASCII codes in an ASCII string
- Deleting an ASCII print command after the ASCII codes are deleted
- Deleting a non-ASCII print command from the layout menu
- Inserting a print command in the layout menu
- Adding ASCII codes to an ASCII string

Deleting one ASCII code from an ASCII string

For example, to delete the hyphen in WEIGH-TRONIX you need to delete the ASCII control code for the hyphen. In Table 1 you can see that this is #45. In Figure 5, the 9th ASCII control code is code #45.

With *9 45* displayed, press **CLEAR** twice. . . .

CLEAR deletes the value and deletes that step in the string. When you delete #9, #10 becomes #9, etc.

Deleting all the ASCII codes in an ASCII string

For example, to delete the entire line of text at the top of the printout shown in Figure 3 you need to delete all the ASCII control codes under the ***1 ASCII*** display shown in Figure 5.

With the first ASCII control code of the string displayed *(**1 31**)*, press **CLEAR** repeatedly until ***END*** is displayed. When ***END*** is displayed press **SELECT** . . . .

1 ASCII is displayed. All the control characters under it are now gone.

Deleting an ASCII print command after the ASCII codes are cleared

With *1 ASCII* displayed, press **CLEAR**. . .

The item is removed from the menu and all the following items move up one number value on the menu. What was item 2 becomes item 1, etc.

Deleting a non-ASCII print command from the layout menu

For example, to delete ***2 GROSS*** from the menu, display ***2 GROSS***, then press **CLEAR** . .

The item is removed from the menu and all the following items move up one number value on the menu. What was item 2 becomes item 1, etc.

Inserting a print command in the layout menu

Inserting any print command in the menu works in the same way.

For example, let's reinsert *GROSS* in the #2 position. Display ***2 ASCII,*** the menu item currently in the #2 position. Press ←. . . .

The layout submenu shown in Figure 6 appears. Scroll through the menu by pressing **MENU**. When ***GROSS*** is displayed press **SELECT**. ***2 GROSS*** is displayed showing that it has been inserted in the second position. ***2 ASCII*** becomes ***3 ASCII,*** *etc.*

Adding characters to an ASCII string

You may insert new codes in an existing ASCII string. Display the code you want the new code to precede and press ←. A cursor appears and you may enter the new code number. All the following code numbers move down one position in the sequence.

To repeat any ASCII code, instead of entering it multiple times, enter the code number, then a decimal, then the number of times you want that code repeated.

For example:
To enter seven carriage returns, enter 13.7.
To enter two capital letter O's in a row, enter 79.2.

For example, let's say you've just created a new ASCII print command in the #1 position in the menu *(**1 ASCII**).* To insert new codes, display ***1 ASCII***, then press **SELECT**. . . .

1 **_** is displayed.

Key in the control code you want and press **MENU**. . . .

2 **_** is displayed prompting your for the 2nd control code in the ASCII string.

Repeat this step until you have entered all the ASCII control codes you want or the indicator tells you the memory is full, then press **SELECT**. . . .

1 ASCII is displayed in this example.

Table 2 ASCII Control Codes

Code #	Control Character	Code #	Control Character	Code #	Control Character	Code #	Control Character
0	NUL	33	!	66	B	99	c
1	SOH	34	"	67	C	100	d
2	STX	35	#	68	D	101	e
3	ETX	36	$	69	E	102	f
4	EOT	37	%	70	F	103	g
5	ENQ	38	&	71	G	104	h
6	ACK	39	'	72	H	105	i
7	BEL	40	(	73	I	106	j
8	BS	41	)	74	J	107	k
9	HT	42	*	75	K	108	l
10	Line Feed	43	+	76	L	109	m
11	VT	44	,	77	M	110	n
12	Form Feed	45	-	78	N	111	o
13	Carriage Return	46	.	79	O	112	p
14	S0	47	/	80	P	113	q
15	S1	48	0	81	Q	114	r
16	DLE	49	1	82	R	115	s
17	DC1	50	2	83	S	116	t
18	DC2	51	3	84	T	117	u
19	DC3	52	4	85	U	118	v
20	DC4	53	5	86	V	119	w
21	NAK	54	6	87	W	120	x
22	SYN	55	7	88	X	121	y
23	ETB	56	8	89	Y	122	z
24	CAN	57	9	90	Z	123	{
25	EM	58	:	91	[	124	|
26	SUB	59	;	92	\	125	}
27	ESC	60	<	93	]	126	~
28	FS	61	=	94	^	127	Delete
29	GS	62	>	95	_		
30	RS	63	?	96	`		
31	US	64	@	97	a		
32	Space	65	A	98	b		

NOTE: To repeat a control code a number of times, enter the control code #, a decimal, then the number of times you want it repeated. Spaces, letters, or carriage returns can easily be repeated this way.

Setup, Scale, Options, Security, Serial-

Seal All

If you choose the YES option, all items under configuration are sealed when switch S1-1 is in the OFF position. If NO is selected, units, capacity, division, zero range, stability, AZT, tare, layout, zero, span, linearity, and seal all are sealed.

Setup, Adjust-

Zero, Span, Linear., Display

This option lets you calibrate the indicator by setting the zero, span, and linearity. Below are specific instructions for setting these parameters.

Setting ZERO and SPAN (Calibration)

The test weight should be a minimum of 25% of capacity.

1. When ***ZERO*** is displayed, remove all weight from scale. Wait till the scale is stable and press **SELECT**.	***BUSY*** is displayed briefly, then ***0***.
2. Press **SELECT**.	***ZERO*** is displayed.
3. Press **MENU**.	***SPAN*** is displayed.
4. Set test weight on scale and let the scale stabilize. See note at left. If using a weight simulator, set the adjustment to .2mV/V. Press **SELECT**.	A number is displayed.
5. Key in the amount of the test weight on the scale (.2mV/V is equal to 3548 pounds) and press **SELECT**.	Display shows ***BUSY*** briefly, then the weight.

*You may exit to the normal Weighing Mode by pressing **G/N**, or continue to Step 6...*

Setting LINEAR.

Make sure you have the proper amount of weight keyed in and the proper amount of weight on the scale when setting LINEAR., or SPAN

You may stop calibration after setting ZERO and SPAN or continue on to set LINEAR. if necessary for your application.

6. Press **SELECT** to return to the ***SPAN*** display, then press **MENU** to advance to the ***LINEAR*** display.	
7. Place approximately half the span test weight on the scale. Press **SELECT**.	A number is displayed.
8. Key in the weight now on the scale and press **SELECT**.	***BUSY*** is displayed briefly and then the weight.

*You may exit to the normal Weighing Mode by pressing **G/N**, or continue to Step 9...*

Viewing DISPLAY

9. Press **MENU** twice to advance to ***DISPLAY***.

10. Press **SELECT** to see the displayed weight without exiting the configuration menu.

*You may exit to normal Weighing Mode by pressing **G/N**.*

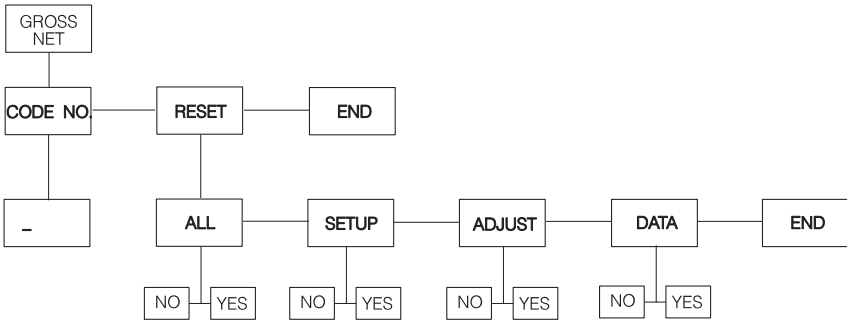
Reset Menu and Master Clear

If the indicator's memory, calibration or other data becomes corrupted, a reset menu will become active. *RESET* will be displayed telling you there has been a problem. You may also choose to perform a master clear to reset the setup, adjust or data values to default values. Performing a master clear gives you access to the first reset menu shown below. If the indicator found a problem with itself, you will see the second menu. In either case, you must turn switch S1-1 on before you can reset setup or adjust items.

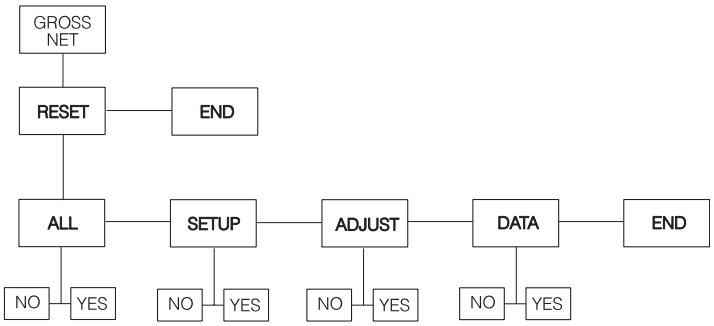
To perform a master clear follow these steps:

Do not reset anything unless it is absolutely necessary. If you reset ADJUST, this may mean you have to bring in a weight truck to re-calibrate your system.

1. Turn the unit off, hold the **TARE** and **ZERO** key down and turn on the unit.	***CODE NO.*** is displayed. You must enter the security code number before you can reset any items.
2. Press **SELECT**.	***0*** is displayed.
3. Use the ↑ key and ← key to key in your security code number, then press **SELECT**.	***CODE NO.*** is displayed.
4. Press **MENU**.	***RESET*** is displayed. From here you access the rest of the menu items the same as you do for all the other menus.



ALL - Includes Setup, Adjust, and Data
SET UP - Configuration selections
ADJUST - Calibration settings
DATA - User entered information



If *SETUP, ADJUST,* or *DATA* are set to defaults, they will not appear in the menu.

If *SETUP, ADJUST,* or *DATA* appear, you have the option to reset one, two, or all three of them to default values.

If *SETUP, ADJUST,* or *DATA* appears and it is flashing, the indicator is telling you that it is corrupted and must be reset to default values.

If *ALL* appears, you have the option to reset all values to their default settings simultaneously.

If *ALL* is flashing, the indicator is telling you that *SETUP, ADJUST*, and *DATA* are all corrupted and you must reset them all to default values.

If you choose *ALL*, the unit returns automatically to weighing mode. All factory defaults are now in place, **including calibration**.

If you choose to reset some choices, but not all, the unit will return to weighing mode when you press **GROSS**. If nothing is corrupted (no choices are flashing) you can return to weighing mode by pressing **SELECT** while *END* (after *RESET*) is displayed.

Indicator Diagnostics

Test Mode

The test mode is used to test various functions of the WI-125LTS. The test menu is shown in Figure 7. Instructions for using the test menu follow.

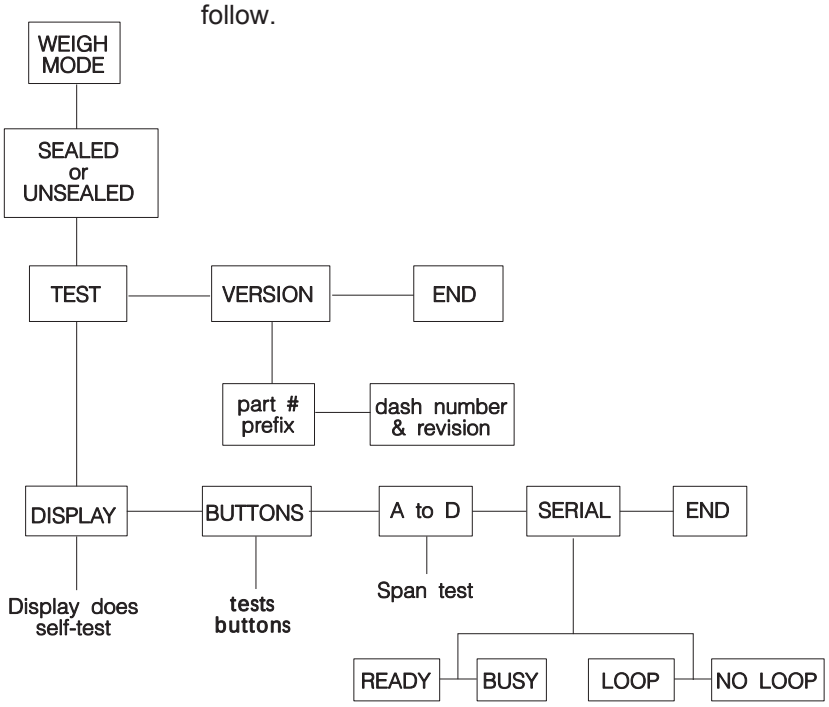


Figure 7
Test Menu

1. Enter the test mode from the gross/net operation by pressing and holding the **MENU** key until ***tESt*** is displayed.

   SEALEd or ***unSEALEd*** is displayed briefly while you hold down the key.

2. Move to the right through the menu selections by pressing **MENU** briefly. Move to the left through the menu selections by pressing **MENU** for 1 second or hold down for continuous scrolling.

3. To move down a level in the hierarchy, press **SELECT**. Anytime you wish to get to the next higher level in the hierarchy, press and hold **SELECT** for approximately 1.5 seconds or press **SELECT** whenever ***End*** is displayed.

4. Press **MENU** to toggle between choices.

5. Press **G/N** to return to gross weighing operation at any time.

Disassembly and Reassembly

Your unit's interior may look slightly different than the one pictured. It is a standard WI-125. The basic disassembly is the same in both models.

1. Remove the hex head screw on each side of the enclosure as shown in Figure 8.

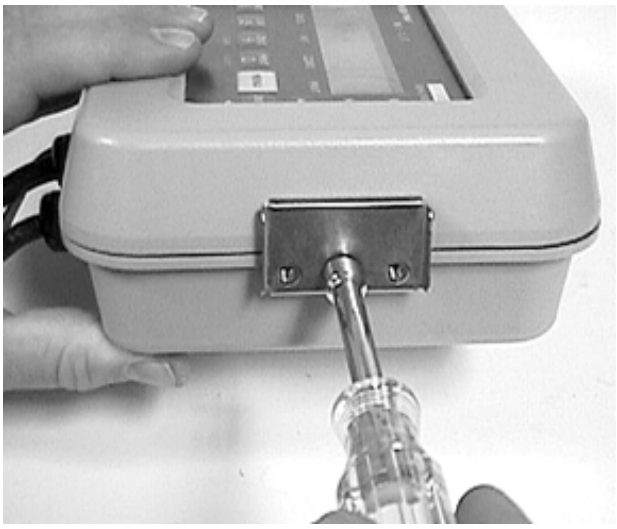


Figure 8
Removing enclosure screw

2. Open up the enclosure as shown in Figure 9 and remove the wires from their connection points on either board.

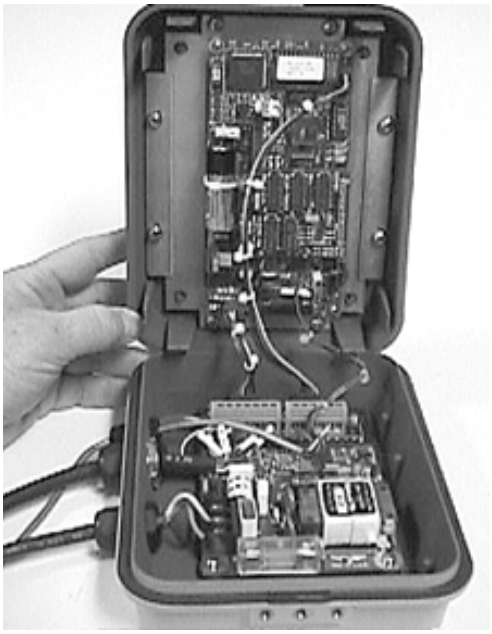


Figure 9
Opening the enclosure

3. To remove the board from the rear half of the enclosure, remove the cable connections, then remove the screws pointed out by the arrows in Figure 10.

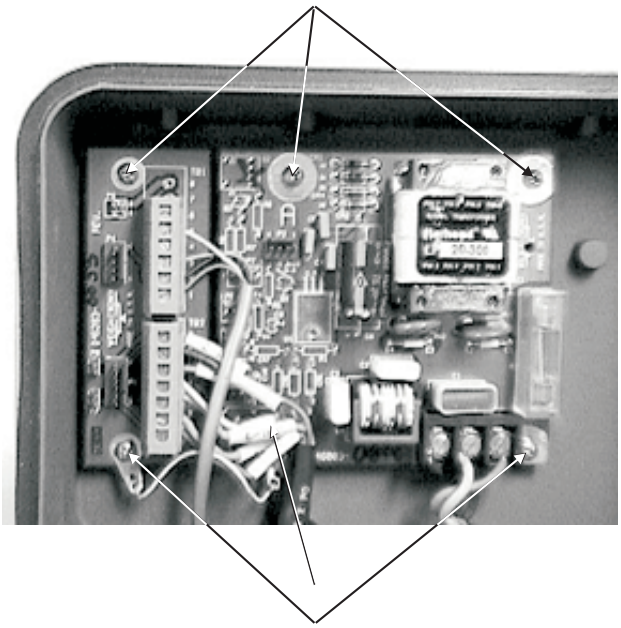


Figure 10
Rear PC board hold down screws

4. Replace the defective part and reinstall the board using the screws and reconnect the cables. See Z-fold pages at the end of this manual for correct connections.

5. If you need to remove an optional time and date PC board, remove the screw shown in Figure 11 and pull the board (outlined in white below) up and off the main PC board. Reverse this procedure to install a time and date board.

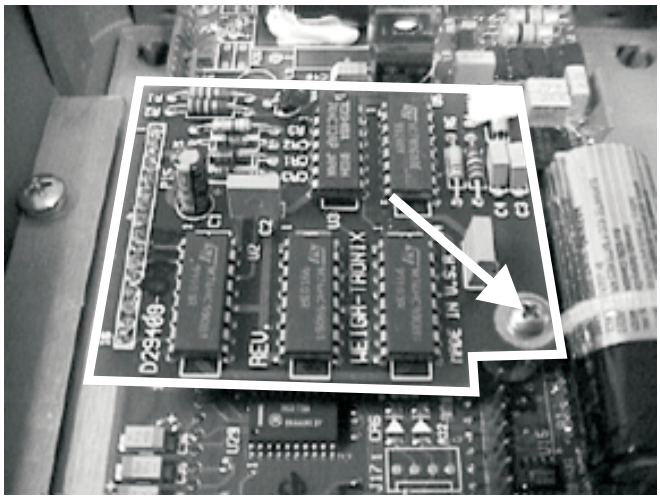


Figure 11
Time and date PC board

6. To remove the main PC board, remove the screws shown in Figure 12. The center one holds the time and date pc board if one is installed. Lift the board up and off the display board.

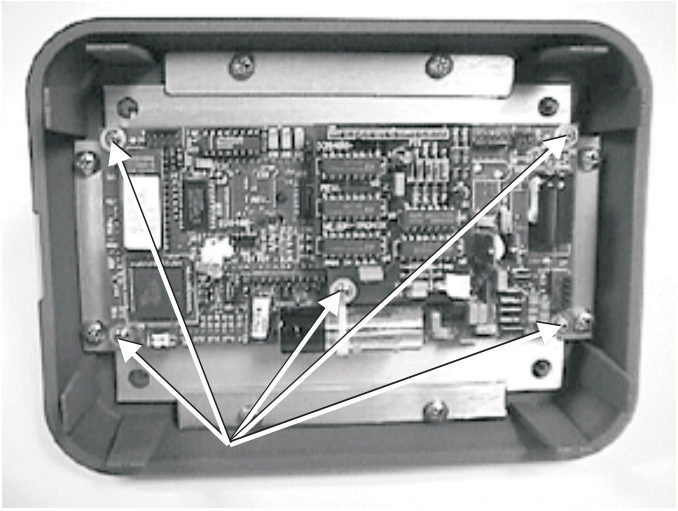


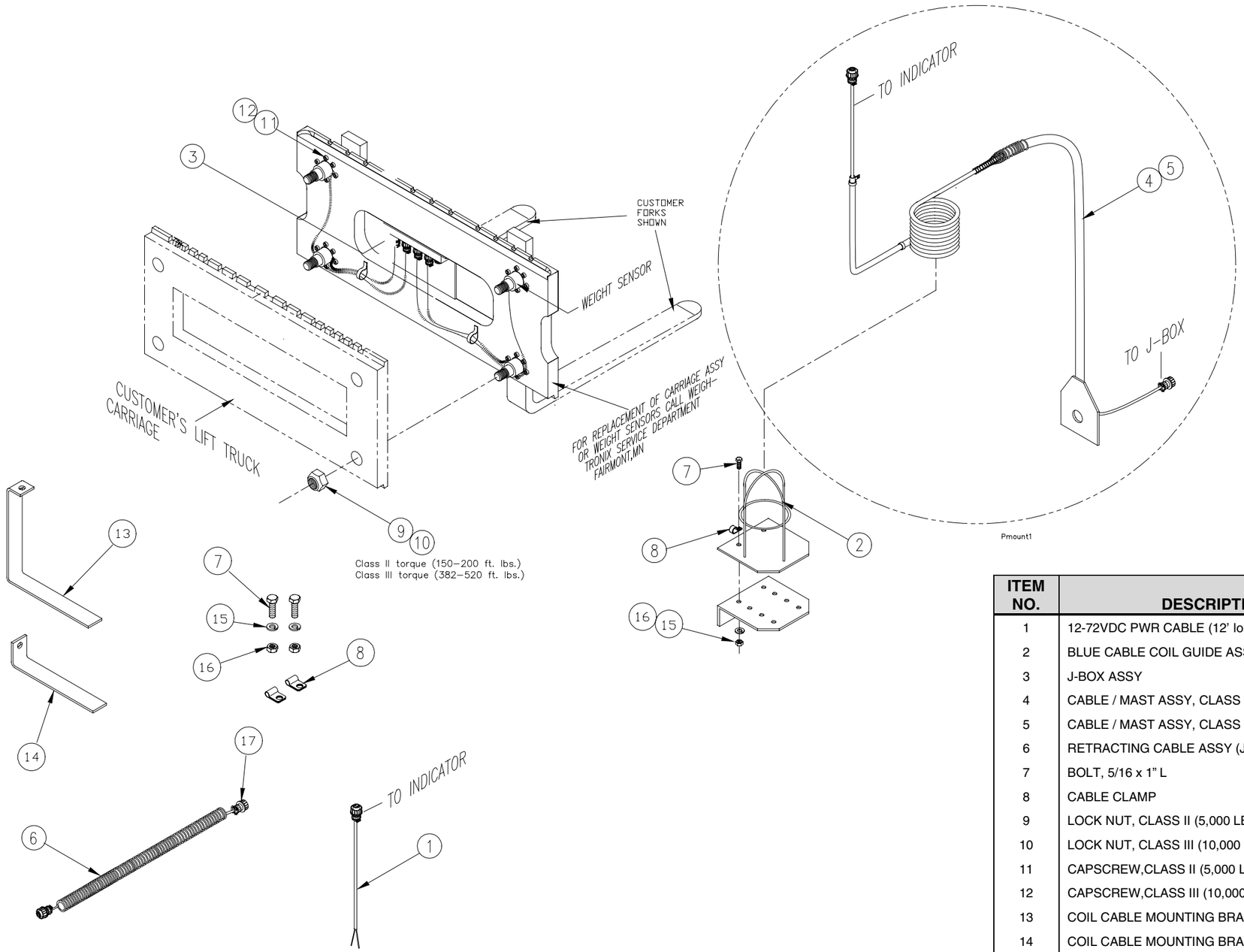
Figure 12
Hold down screws for main PC board

7. To remove the display board, remove the eight screws holding it down.
8. Reassemble the WI-125 by reversing the disassembly steps.

LIFT TRUCK SCALE CARRIAGE

-PERMANENT MOUNT-

MAJOR COMPONENTS & ASSEMBLIES



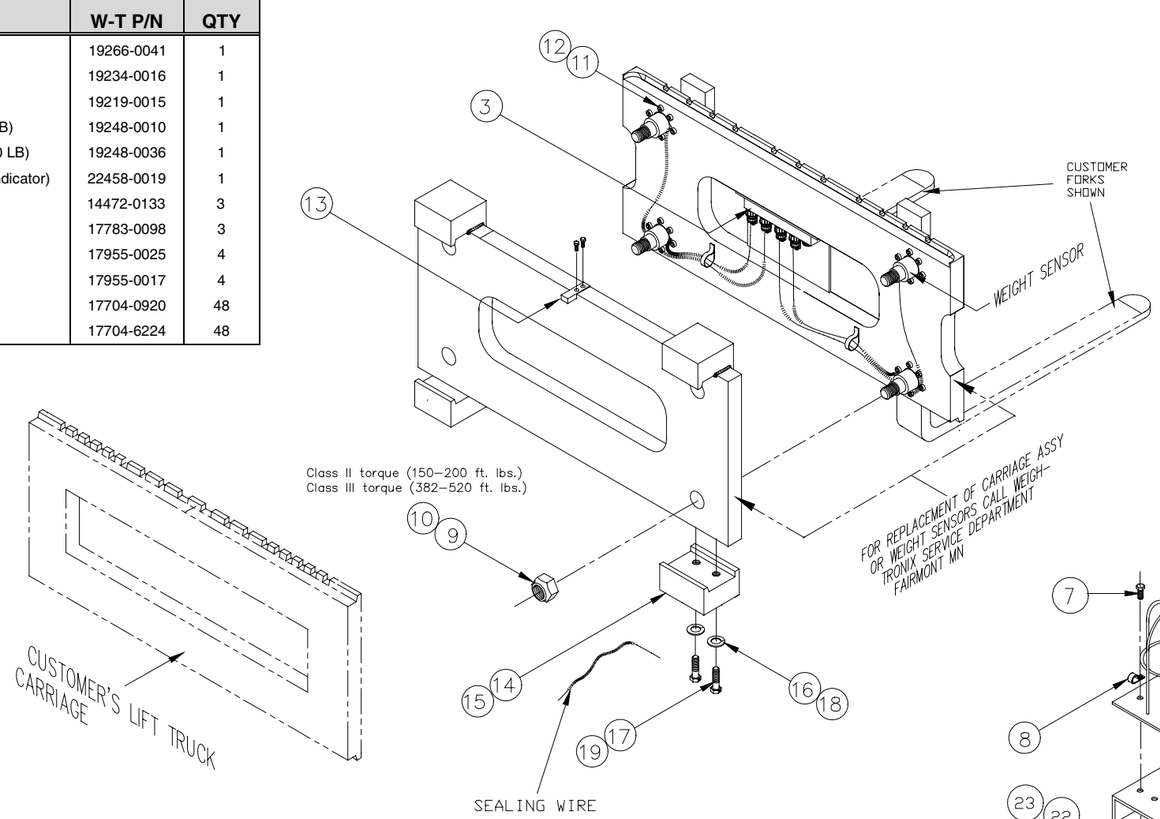
ITEM NO.	DESCRIPTION	W-T P/N	QTY
1	12-72VDC PWR CABLE (12' long)	19266-0041	1
2	BLUE CABLE COIL GUIDE ASSY	19234-0016	1
3	J-BOX ASSY	19219-0015	1
4	CABLE / MAST ASSY, CLASS II (5000 LB)	19248-0010	1
5	CABLE / MAST ASSY, CLASS III (10,000 LB)	19248-0036	1
6	RETRACTING CABLE ASSY (J-Box to indicator)	22458-0019	1
7	BOLT, 5/16 x 1" L	14472-0133	3
8	CABLE CLAMP	17783-0098	3
9	LOCK NUT, CLASS II (5,000 LB)	17955-0025	4
10	LOCK NUT, CLASS III (10,000 LB)	17955-0017	4
11	CAPSCREW,CLASS II (5,000 LB)	17704-0920	48
12	CAPSCREW,CLASS III (10,000 LB)	17704-6224	48
13	COIL CABLE MOUNTING BRACKET	22456-0011	1
14	COIL CABLE MOUNTING BRACKET	22456-0011	1
15	LOCK WASHER,5/16	14474-0073	3
16	NUT, 5/16	14471-0076	3
17	12-PIN MALE CONNECTOR	46696-0010	2\ca.

LIFT TRUCK SCALE CARRIAGE

-QUIK-TACH-

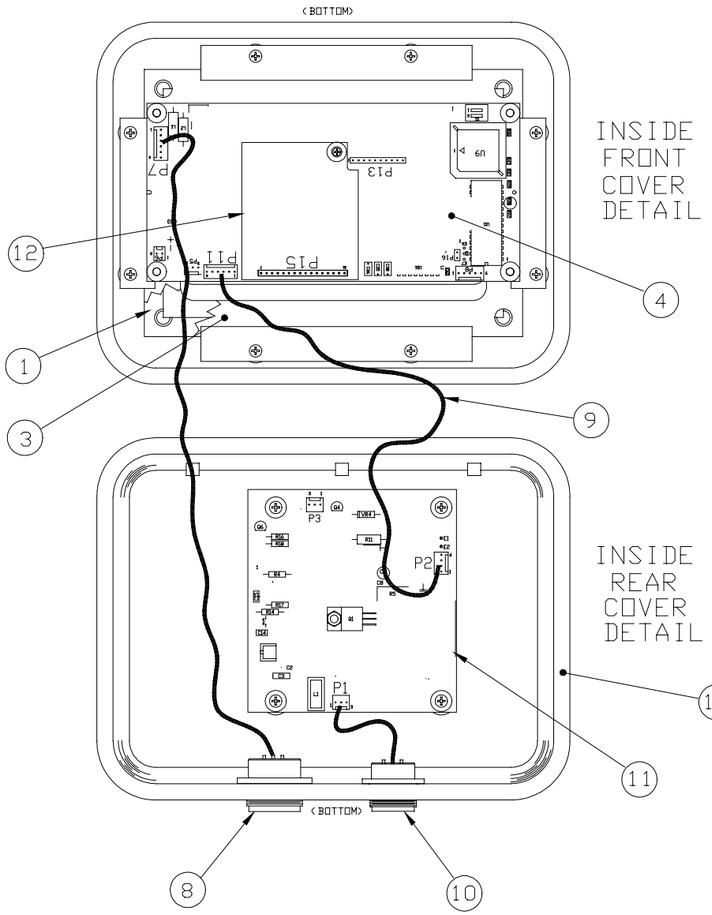
MAJOR COMPONENTS AND ASSEMBLIES

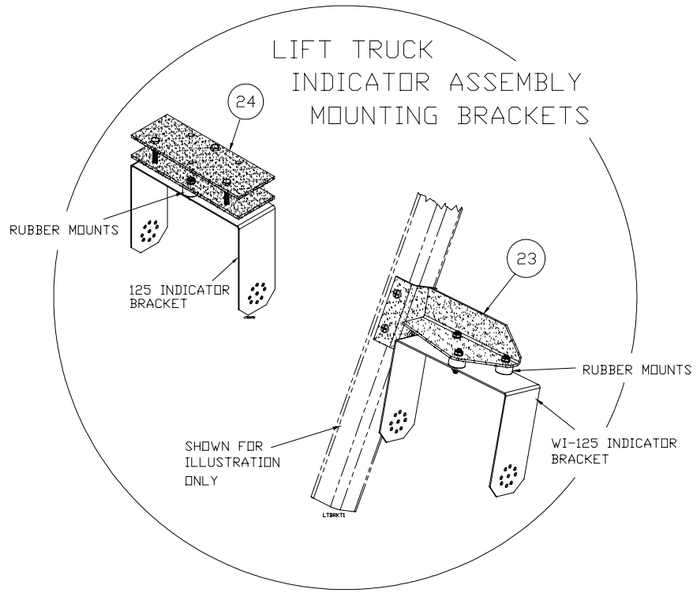
ITEM NO.	DESCRIPTION	W-T P/N	QTY
1	12-72VDC PWR CABLE (12' long)	19266-0041	1
2	BLUE CABLE COIL GUIDE ASSY	19234-0016	1
3	J-BOX ASSY	19219-0015	1
4	CABLE / MAST ASSY, CLASS II (5000 LB)	19248-0010	1
5	CABLE / MAST ASSY, CLASS III (10,000 LB)	19248-0036	1
6	RETRACTING CABLE ASSY (J-Box to indicator)	22458-0019	1
7	BOLT, 5/16 x 1" L	14472-0133	3
8	CABLE CLAMP	17783-0098	3
9	LOCK NUT, CLASS II (5,000 LB)	17955-0025	4
10	LOCK NUT, CLASS III (10,000 LB)	17955-0017	4
11	CAPSCREW,CLASS II (5,000 LB)	17704-0920	48
12	CAPSCREW,CLASS III (10,000 LB)	17704-6224	48



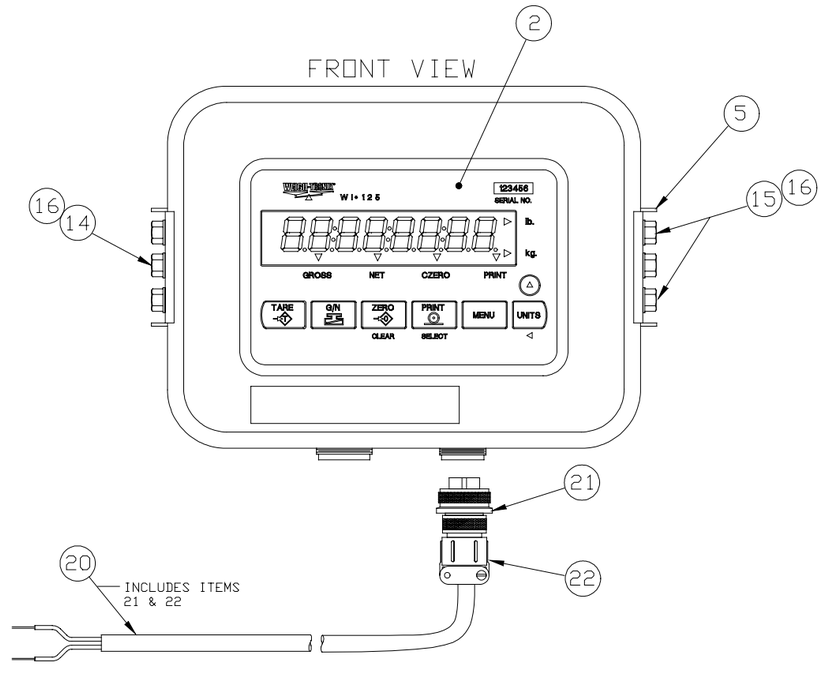
ITEM NO.	DESCRIPTION	W-T P/N	QTY
13	CARRIAGE CENTERING PIN	19968-0018	1
14	BOTTOM CARRIAGE HOOK(CLASS II, 5,000LB)	19967-0019	2
15	BOTTOM CARRIAGE HOOK(CLASS III, 10,000LB)	20732-0011	2
16	LOCK WASHER, (CLASS II, 5,000LB)	14474-0107	4
17	BOLT,CLASS II & III (5,000 LB)	49889-0011	4
18	LOCK WASHER, (CLASS III, 10,000LB)	14474-0115	4
19	BOLT,CLASS III (10,000 LB)	49889-0045	4
20	COIL CABLE MOUNTING BRACKET	22456-0011	1
21	COIL CABLE MOUNTING BRACKET	22456-0011	1
22	LOCK WASHER,5/16	14474-0073	3
23	NUT, 5/16	14471-0076	3
24	12-PIN MALE CONNECTOR	46696-0010	2\ca.

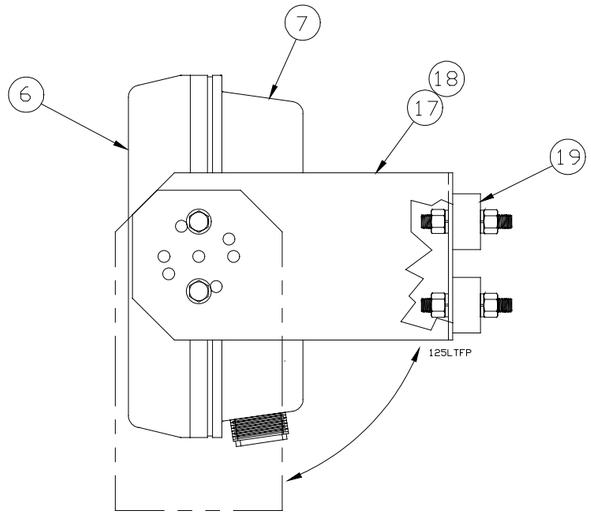
WI-125 FOR LIFT TRUCK
INDICATOR PARTS & ASSEMBLY





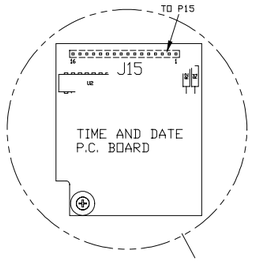
ITEM NO.	DESCRIPTION	W-T P/N	QTY
1	SILICONE GASKET	1055-10389	1
2	KEYPAD ASSY	45957-0016	1
3	BACKER PLATE	29422-0017	1
4	MAIN BOARD ASSY w/ E-PROM	53042-1072	1
	MAIN BOARD ASSY w/o E-PROM	53042-0041	1
	E-PROM FOR LT (non-certified)	53660-0018	1
5	ENCLOSURE SEALING BRACKET	1067-09677	2
6	FRONT ENCLOSURE	45902-0012	1
7	REAR ENCLOSURE	29423-0024	1
8	WEIGHT SENS CONN / CABLE ASSY	29427-0012	1
9	POWER SUPPLY TO MAIN BD CABLE ASSY	45949-0017	1
10	INPUT POWER CONN / CABLE ASSY	45948-0018	1
11	POWER SUPPLY PC BD	45931-0017	1
12	TIME & DATE PC BD ASSY	29409-0014	1
13	ADHESIVE FOAM GASKET	1045-08401	1
14	CAP SCREW,#10-32 x .38L	14505-0035	2
15	CAP SCREW,#10-32 x .50L	14505-0050	4
16	TOOTH WASHER, #10	15698-0054	6
17	MTG BRACKET (6.75” long)	28170-0013	1
18	MTG BRACKET (5.75” long)	28170-0039	1
19	RUBBER MOUNT	17807-0090	3
20	12 - 72 VDC PWR CABLE ASSY (12’ long)	19266-0041	1
21	TWO PIN MALE CONNECTOR	14481-0025	1
22	PWR CABLE CLAMP	14482-0016	1
23	ANGLE MTG. BRACKET (used w/ items 17 or 18)	49106-0018	1
24	MOUNTING KIT (used w/ items 17 or 18)	53804-0023	1

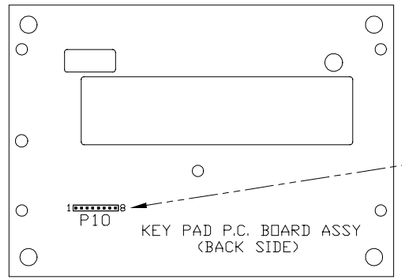


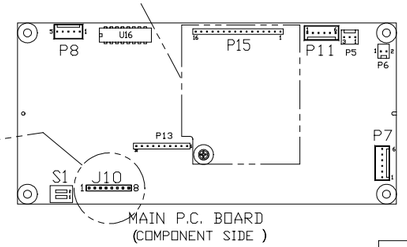


WI-125 FOR LIFT TRUCKS

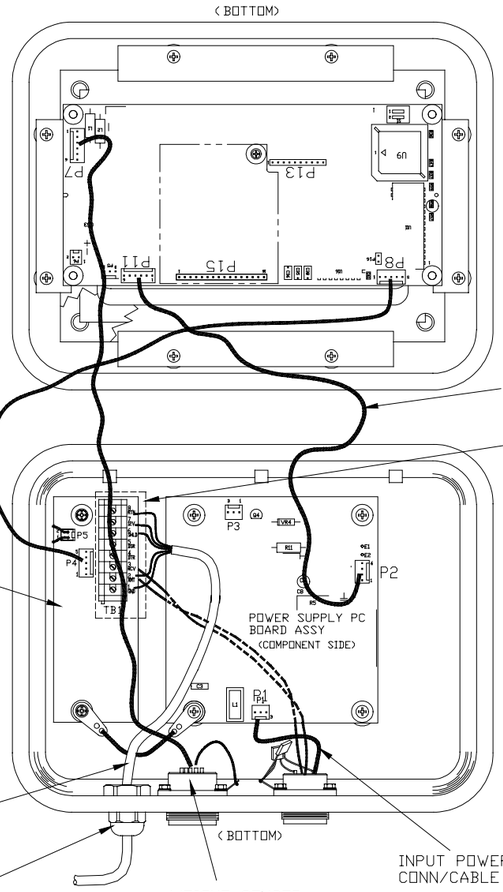
CONNECTOR / CABLE ASSY PIN-OUTS,
& RS-232 OPTION



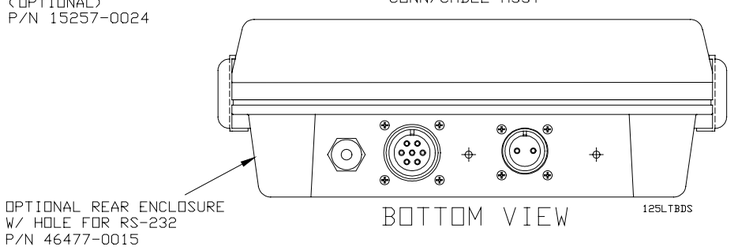




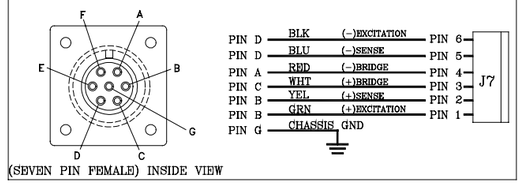
INSIDE
FRONT
COVER
DETAIL



RS-232 INTERFACE CONNECTIONS	
TERMINAL BOARD	SIGNAL
TB1-1	SIGNAL GROUND
TB1-2	TRANSMIT DATA
TB1-3	RECEIVE DATA
TB1-4	DATA TERMINAL READY
TB1-5	CLEAR TO SEND
TB1-6	CHASSIS GROUND
TB1-7	+12V
TB1-8	POWER RETURN

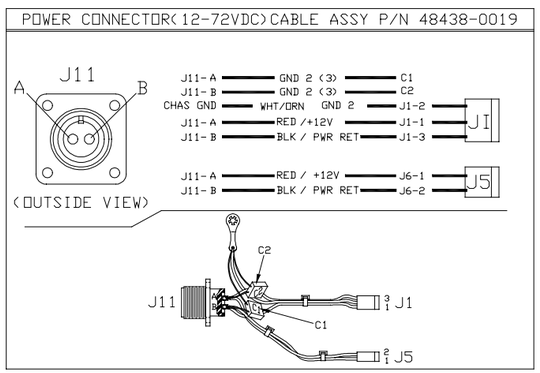


WEIGHT SENSOR CONN./CABLE ASSY P/N 29427-0012



PINOUT1

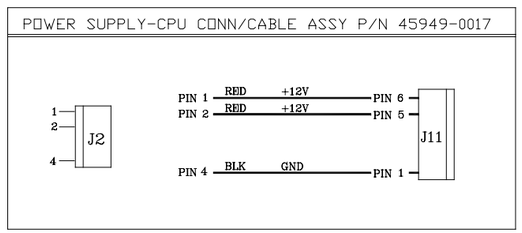
POWER CONNECTOR(12-72VDC)CABLE ASSY P/N 48438-0019



PINOUT2

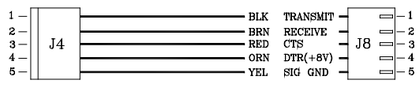
USED W/OPTIONAL RS-232

POWER SUPPLY-CPU CONN/CABLE ASSY P/N 45949-0017



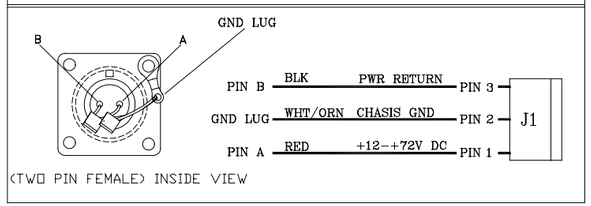
PINOUT1

RS-232 INTERFACE-MAIN BD/CABLE ASSY P/N 45898-0018



PINOUT1

DC POWER CONN/CABLE ASSY P/N 45948-0018



PINOUT1

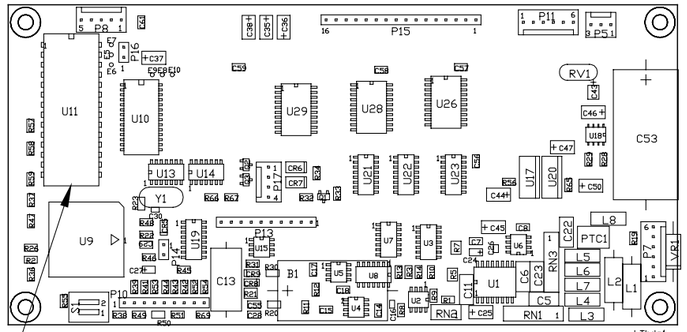
USED W/O RS-232

WI-125 FOR LIFT TRUCKS

MAIN BOARD, POWER SUPPLY BOARD,
TIME AND DATE BOARD, & KEYPAD w/ SCHEMATIC

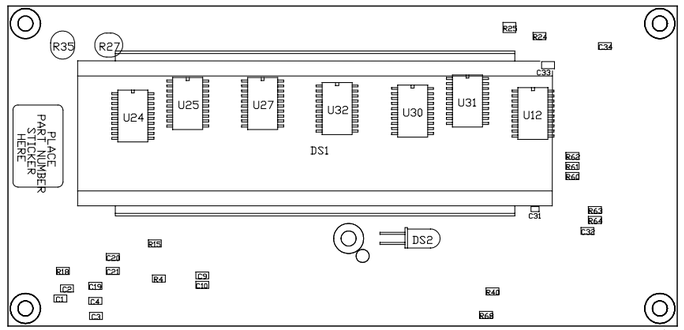
WI-125LT INDICATOR MAIN BOARD (W/ E-PROM)

P/N 53042-1072

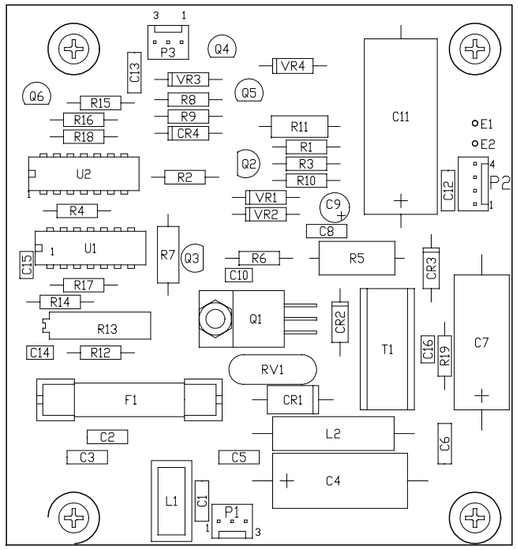


E-PROM P/N 53660-0018

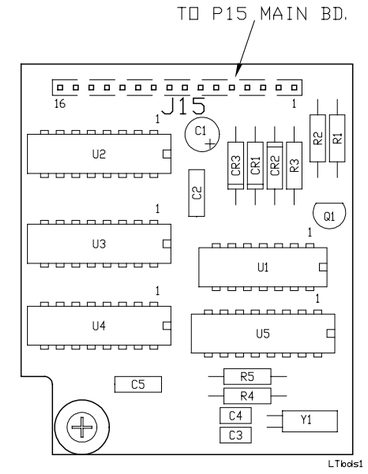
COMPONENT SIDE



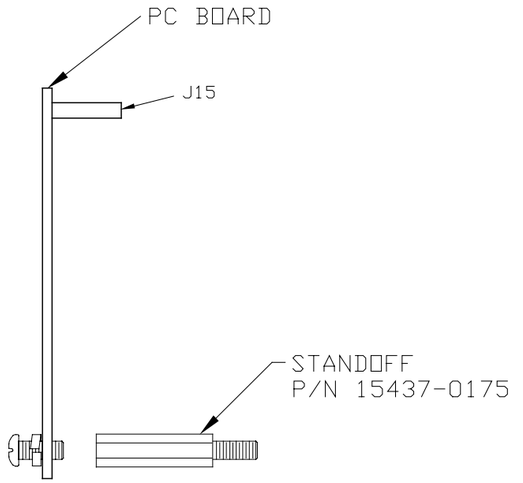
BACK SIDE



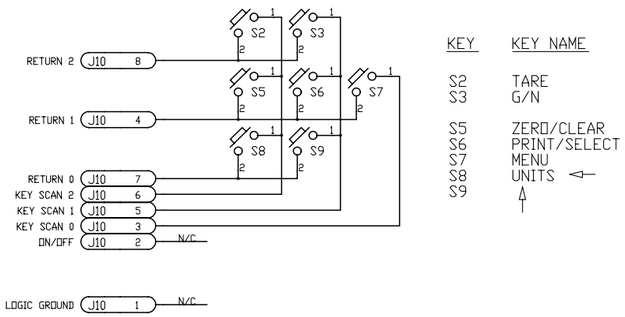
POWER SUPPLY BD P/N 45931-0017



TIME & DATE BD. ASSY
P/N 29409-0014



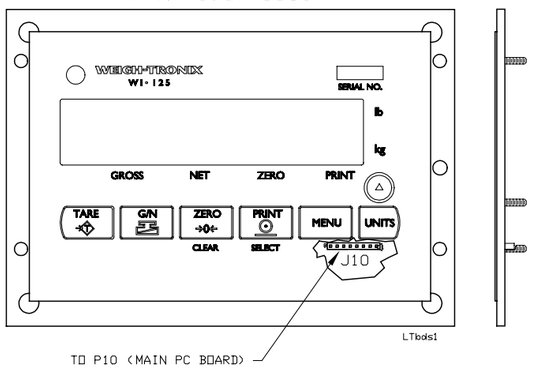
KEYPAD SCHEMATIC



KEY	KEY NAME
S2	TARE
S3	G/N
S5	ZERO/CLEAR
S6	PRINT/SELECT
S7	MENU
S8	UNITS
S9	

KEYPAD OVERLAY ASSY

P/N 45957-0016



TO P10 (MAIN PC BOARD)

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Weighing Products & Systems

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