

ZM305 GTN Inbound-Outbound

Indicator



User Instructions

Avery Weigh-Tronix is a trademark of the Illinois Tool Works group of companies whose ultimate parent company is Illinois Tool Works Inc ("Illinois Tool Works"). Copyright © 2018 Illinois Tool Works. All rights reserved.

No part of this publication may be reproduced by making a facsimile copy, by the making of a copy in three dimensions of a two-dimensional work and the making of a copy in two dimensions of a three-dimensional work, stored in any medium by electronic means, or transmitted in any form or by any means, including electronic, mechanical, broadcasting, recording or otherwise without the prior written consent of the copyright owner, under license, or as permitted by law.

This publication was correct at the time of going to print, however Avery Weigh-Tronix reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service at any time.

Table of Contents

		pag
Table of Conto	ents	3
Chapter 1 Ger	neral information and warnings	5
Chaptor 1 Con	About this manual	
	Text conventions	
	Special messages	
	Installation	
	Safe handling of equipment with batteries	
	Wet conditions	
	Routine maintenance	
	Cleaning the machine	
	· ·	
	Training	
	Sharp objects	
	FCC and EMC declarations of compliance	
	Declarations of Conformity	9
Chapter 2 Intr	oduction	.11
	Front panel	
	Keys	
	Annunciators	
	Powering up the ZM305	-
	Entering a negative number	
Chapter 3 Tru	ck In/Out Operation	.15
	General weighing	15
	Gross weighing	.15
	Net weighing	.15
	Using Pushbutton Tare	. 16
	Truck inbound-outbound operations	18
	IN/OUT key operation	.18
	FLEET key operation	
	REPORT key operation	
	Using setpoints	
	Printing	
	ID Entry	
	Traffic light controls	
	START key	
	STOP key	
	0101 Noy	_0
Chapter 4 Mer	nus	24
	Accessing the menus	24
	Menu annunciators	24
	Exiting the menus	25
	USER level menus	25
	User menu	26
	Time	
	Date	
	Site ID	
	Seal	
	About menu	_
	Boot	
	Firm and App	
	y / W/	

	Serial	30
	Option	30
	Enet	
	Dload	
	Audit menu	
	Counter	
	Print	
Chapter 5 Com	munications	35
	Default print formats	
	Report Printout Samples	
Chapter 6 Error	messages	38
	General messages	
	Truck scale database CSV file import/export messages	
Chantor 7 Suno	rvisor menu	40
	Setpoint	
	Tare	
	Truck	
	Battery	55

1 General information and warnings

1.1 About this manual

This manual is divided into chapters by the chapter number and the large text at the top of a page. Subsections are labeled as shown by the 1.1 and 1.1.1 headings. The names of the chapter and the next subsection level appear at the top of alternating pages of the manual to remind you of where you are in the manual. The manual name and page numbers appear at the bottom of the pages.

1.1.1 Text conventions

Key names are shown in **bold** and reflect the case of the key being described. If a key has a dual function it may be referred to by its alternate function.

Displayed messages appear in **bold italic** type and reflect the case of the displayed message.

Annunciator names appear as *italic* text and reflect the case of the annunciator.

1.1.2 Special messages

Examples of special messages you will see in this manual are defined below. The signal words have specific meanings to alert you to additional information or the relative level of hazard.



CAUTION!

This is a Caution symbol.

Cautions give information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.



NOTE: This is a Note symbol. Notes give additional and important information, hints and tips that help you to use your product.

1.2 Installation



NO USER SERVICEABLE PARTS. REFER TO QUALIFIED SERVICE PERSONNEL FOR SERVICE.

1.2.1 Safe handling of equipment with batteries



CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie, remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

1.2.2 Wet conditions

Under wet conditions, the plug must be connected to the final branch circuit via an appropriate socket / receptacle designed for washdown use.

Installations within the USA should use a cover that meets NEMA 3R specifications as required by the National Electrical Code under section 410-57. This allows the unit to be plugged in with a rain tight cover fitted over the plug.

Installations within Europe must use a socket which provides a minimum of IP56 protection to the plug / cable assembly. Care must be taken to make sure that the degree of protection provided by the socket is suitable for the environment.

1.3 Routine maintenance



IMPORTANT: This equipment must be routinely checked for proper operation and calibration.

Application and usage will determine the frequency of calibration required for safe operation.

Always isolate the indicator from the power supply before starting any routine maintenance to avoid the possibility of electric shock.

1.4 Cleaning the machine

Table 1.1 Cleaning DOs and DON'Ts



DO	DO NOT
Wipe down the outside of standard products	Attempt to clean the inside of the machine
with a clean cloth, moistened with water and a small amount of mild detergent	Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions
Spray the cloth when using a proprietary cleaning fluid	Spray any liquid directly on to the display windows

1.5 **Training**

Do not attempt to operate or complete any procedure on a machine unless you have received the appropriate training or read the instruction books.

To avoid the risk of RSI (Repetitive Strain Injury), place the machine on a surface which is ergonomically satisfactory to the user. Take frequent breaks during prolonged usage.

Sharp objects 1.6

Do not use sharp objects such as screwdrivers or long fingernails to operate the keys.

1.7 FCC and EMC declarations of compliance

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.

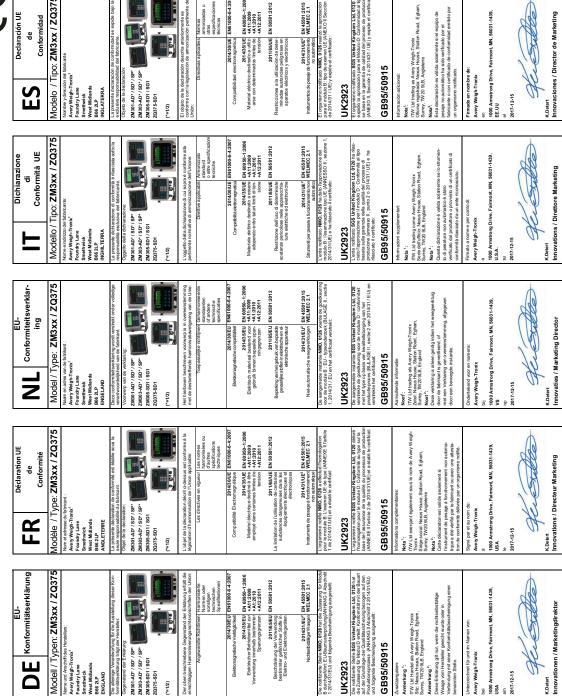
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique edicté par le ministère des Communications du Canada.

European Countries

WARNING: This is a Class A product. In a domestic environment, this product may cause radio interference in which the user may be required to take adequate measures.

1.8 Declarations of Conformity





2014/30/EU EN61 000-6-4:200

EN 45501:2015 WELMEC 2.1

2014/31/EU² Non-Automatic Weighing Instruments

EN 50581:201

2011/65/EU
Restriction of the use of certain hazardous substances in electrical and electronic equipment

UK2923
The notified body SGS United Kingdom Ltd. 0120 issue to modified to Conformity to type based on the arrange of the second for modified D. Conformity to type based on the arrange of the second for modified on process (ANNEX II.)

Ltd trading as Avery Weigh-Tronix Office: Nexus House, Station Road, y, TW20 9LB, England

GB95/50915

ZM301-AD* / SP* / SP* ZM303-AD* / SD* / SP* ZM305-SD1 / SG1 ZM375-SD1

Avery Weigh-Tronix

EU Declaration of Conformity

Innovations/Marketing Director

3f 1000 Arms trong Drive, Fairmont. Modelo / Tipo: ZM3xx (R61)

Modello / Tipo: ZM3xx (R61)

Dichiarazione di Conformità UE ZM301-AD* / SD* / SP* ZM303-AD* / SD* / SP* ZM305-SD1

ZM301-AD* / SD* / SP* ZM303-AD* / SD* / SP* ZM305-SD1

Avery Weigh-Tronix

i	Ī	:	ū
Declaration of	Konformitätserklärung	Declaration UE	Conformiteitsverklar-
Samono -	 	Conformité	Ĝ.
Model / Type: ZM3xx (R61)	Modell / Typen: ZM3xx (R61)	Modèle / Type: ZM3xx (R61)	Model / Type: ZM3xx (R61)
Name and address of the manufacturer: Avery Weigh-Tronix!	Name und Anschrift des Herstellers: Avery Weigh-Tronix¹	Nom et adresse du fabricant: Avery Weigh-Tronix*	Naam en adres van de fabrikant: Av ery Weigh-Tronix ¹
Foundry Lane Smethwick West Midlands	Foundry Lane Smethwick West Midlands	Foundry Lane Smethwick West Midlands	roundry Lane Smethwick West Midlands
B66 2LP ENGLAND	B662LP ENGLAND	B66 2LP ANGLETERRE	B66 2LP ENGELAND
This declaration of conformity is issued under the sole responsibility of the manufacturer	De alleinig e Verantwortung für die Ausstellung dieser Kon- for mitätserklärung trägt der Hersteller.	La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.	Deze conformitelisverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabriikant.
Object of the declaration:	Gegenstand der Erklärung:	Objet de la declaration:	Voorwerp van de verklaring:
ZM303-AD* / SD* / SP*	ZM303-AD* / SD* / SP*	ZM303-AD* / SD* / SP*	ZM303-AD*/SD*/SP*
SD1	ZM305-SD1	SDI I	ZM305-SD1
(2)=1)	('=1/2)	(=1/2)	(7=1Z)
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:	Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechts vorschriften der Union:	L'objet de la déclaration décrit ci-des sus est conforme à la législation d'harmonisation de l'Union applicable:	Het hierboven beschreven voorwerp is in overeenstemming met de desbe teffende harmonisatiewetge ving van de Unie:
Applicable Directives Harmonised standards or other technical or other technical specifications	Angewandte Richtlinien Harmonisierte Normen oder son stigen Bechnischen Schezikfustenen Schezikfustenen	Les directives en vigueur Les normes harmonises ou d'autre s' specifications exchiniques	Toepa ssellike richtlignen Gehamoniseerde standaarden of andere of andere technische snootficzalies
2014/30/EU EN610 00-6-4:2007 Electromagnetic Compatibility	2014/30/EU EN61000-6-4:2007	2014/30/UE EN61000-6-4:2007 Compatibilité Électromagnétique	2014/30/EU EN6100 6-6-4:2007 Bektomagnetische compatibilieit
2014/3/EU EN 60950-1;2006 Electrical equipment designed forces within +441;2010 orient rockage limits +441;2010 orient rockage limits +441;2010	2014/35/EU EN 60950-1:2006 Elektrischer Berinbernittel zur +4411.2009 Verwendung innerhalb bestimmter +441:2010 Spanutngsgrenzen +A1:2011	201435/UE EN 60950-1:2006 Matériel évectrique destiné à être +4.11:2019 employé d'ans certaines limites de +471:2010 (enssion +4.12:2011	2014/35/EU EN 60950–1:2006 Elektrisch materiaal besternt voor +441:2009 gebruik binnen bepaalde span- +441:2010 infaggerenzen +441:2011
2011/65EU EN 50581;2012 Resircion of the use of order in hozarious substances in electrical and declaract opulanent opulanent	2011/65/EU EN 50581:2012 Beschfärkung der Vorwendung her bystemmer gelährlicher Styffe in Elektro- und Elektro-niligeräten	201/65/UE EN 50581:2012 La limitation de l'utilisation de ce hatheres subdances dangeneuses dens les equipements édenciques es édectroriques et	2011/6S/EU EN 90581:2012 Bepreking ven het gitzuk von hegaable gevaanlijke stiffen in dektische en ei- ektronische apprentuur
2014/32/EU OIML R61-1:2004 Measuing Instruments (E)	2014/32/EU OIML R61-1:2004 Messgeräten (E)	2014/32/UE OIML R61-1:2004 Instruments de mesure (E)	2014/32/EU OIML R61-1:2004 Meetinsfrumenten (E)
WELMEC 2.1 WELMEC 2.8 WELMEC 8.8	WELMEC 2.1 WELMEC 2.8 WELMEC 3.8 WELMEC 8.8	WELNEC 2.1 WELNEC 2.8 WELNEC 2.8 WELNEC 8.3	WELME C 2 1 WELME C 2 8 WELME C 2 8 WELME C 6 8
The notified body NMO, 0126 performed the approval for model B.E.E./ppe examination (ANNEX.II of 2014/32/EU) and issued the certificate:	De notifizierte Stelle NMO, 0126 hat die Zulassung für Modul B durchgeführt. EU-Baumsterp führig/ANHANG II 2014/322 EU) und folgende Bescheingung ausgestellt:	L'organisme notife WMO, 0126 a effectue fhomologation pour le module B. L'abamen UE de type (ANNEXE II de 2014/32/LE) et a étable le certificat.	De angemelte instante NNO, 0126 voerde de goedkeuring voor de module B: EU-typondezoekt: BULAGE II, 2014/22/EU en het certificiaal versteekt:
UK/0126/0122	UK/0126/0122	UK/0126/0122	UK/0126/0122
Mode 1, Mode 1	Zucharzupeachung*; Amendeung*; Tri Kut Heade Aberg (Weigh-Troid Starry, TWZ 64 E. England Sarry, TWZ 64 E. England	Modes ', Nobes ', Nob	Abanoukondos informatios Mood; TUT LEI tradial Annay Mungh-Trootx Zimit V. Leit tradial Annay Mungh-Trootx Surray, TWOD BLE, England Surray, TWOD BLE, England
Signed for and on behalf of: Avery Weigh-Tronix	Unterzeichnet für und im Namen von: Avery Weigh-Tronix	Signé par et au nom de: Avery Weigh-Trontx	Ondertekend voor en namens: Avery Weigh-Tronix
at 1000 Armstrong Drive, Fairmont, MN, 56031-1439, USA	bei 1000 Armstrong Drive, Fairmont, MN, 56031-1439, USA	a 1000 Amstrong Drive, Fairmont, MN, 56031-1439, USA	bij 1000 Armstrong Drive, Fairmont, MN, 56031-1439, VS
2017-06-21 HLEEB	an 2017-06-21 46-28	2017-06-21 July 2017-06-21	2017-06-21 HARB
K.Detert Innovations/Marketing Director	K.Detert Innovationen / Marketingdirektor	K.Detert Innovations / Directeur Marketing	K.Detert Innovaties / Marketing Director

OIML R61-1:2004

2014/32/UE tos de medida

OIML R61-1:2004 (E) WELMEC 2.1 WELMEC 7.2 WELMEC 7.2

2014/32/UE Strumenti di misura ente notificato NMO, 0126 ha dato l'approvazione del nodulo B. Il esaminazione tipo UE (ANNESSO II, 2014/32/IF) e ha rifasciato il cerificato:

2014/35/UE
Material eléctrico de stimado a utiliz- +
arse con determinados limites de +
lensión +

EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011

2014/30/UE EN61000-6-4:2007

Información adicional:

Nota¹:

TIYN L4 trating as Avey Weigh-Tronkx
Oficina registrada: Nexus House, Sation Road, Egham.
Surrey, TW/20 9LB, Angleterre

Nota *: ITW Ltd trading come Avery Weigh-Trontx Sede dell'ufficio: Nexus House, Staton Road, Egham, Surrey, TW20 9.18, England

UK/0126/0122

UK/0126/0122



Declaración UE de Conformidad



K.Detert Innovaciones / Director de Marketing

Innovations / Direttore Marketing

Firmado en nombre de: Avery Weigh-Tronix en 1000 Armstrong Drive, F. EE.UU

2 Introduction

This manual covers the use of the ZM305 GTN (Gross/Tare/Net) Inbound-Outbound indicator shown in Figure 2.1. The indicator comes in a stainless steel housing with the IBN display for high contrast in indoor or outdoor use.

The indicator is designed to interface with an electronic weigh bridge in a Truck Inbound-Outbound situation. Its purpose is to record inbound and outbound truck weights to calculate net weight value which can be transmitted by a USB port, 2 serial COM ports or an Ethernet port. Analog Output, Current Loop/RS485/RS422, USB Device and Wireless Ethernet 802.11g internal module cards are available options. One module card option can be installed at a time.

Also available is the STVS option for Severe Transient Voltage Suppression.

The ZM305 can connect to USB flash drives, printers, remote displays, computers and other peripheral devices.

The indicator also has three logic level inputs with configurable functions and three set point outputs. See the Specification literature for a full list of specifications.

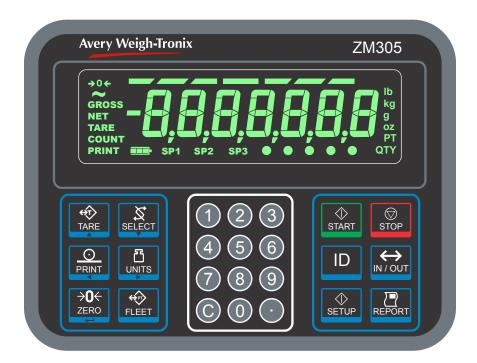


Figure 2.1 Front panel of the ZM305 Inbound-Outbound indicator

2.1 Front panel

The front panel, shown in Figure 2.1, consists of the keys and display.



Never press a key with anything but your finger. Damage to the overlay may result if sharp or rough objects are used.

2.1.1 Keys

The normal function of the keys on the front panel are listed below.

⇔ TARE	Press the TARE key to perform a tare function. Also prompts for a keyboard tare, if enabled. Acts as an up arrow key for menu navigation.
SELECT	Press the SELECT key to toggle between the active display values. Press and hold to enter the setpoint editor. Acts as a down arrow key for menu navigation.
O PRINT	Press the PRINT to send information to a peripheral device through a configured communications port. Acts as a left arrow key for menu navigation.
UŅĪTS	Press the UNITS key to scroll through the available units of measure while in normal operating mode. Acts as a right arrow key for menu navigation.
→ 0 ← ZERO	Press the ZERO key to zero the display. Acts as an ENTER key to accept a displayed value or function.
↔ FLEET	Press the FLEET key to enter a Fleet truck ID. Press and hold to clear a Fleet Truck sequence.
♦ START	Press the START key to change optional traffic light status to green.
© STOP	Press the STOP key to change optional traffic light status to red.
ID	Press ID to show the current ID value. Press and hold ID to enter a new ID value.
⇔ IN / OUT	Press the IN/OUT key to enter an Inbound/Outbound truck ID. Aborts a numeric entry and acts as an ESCAPE key for some of the menu navigation. Press and hold to clear an In/Out Truck sequence.

2.1.2 Annunciators

The annunciators on the display are shown and labeled in Figure 2.2.

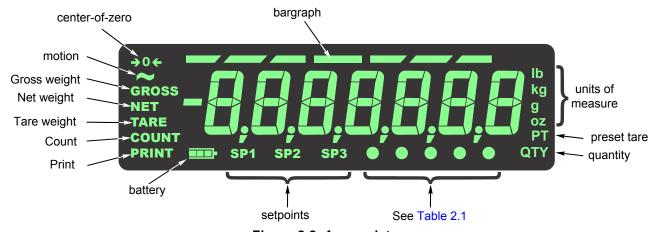


Figure 2.2 Annunciators

These annunciators will light during operation to inform the user of the weighing mode, active unit of measure, etc.

Annunciator	Indicates
Circle 1 (left most)	Network activity
Circle 2	Custom unit
Circle 3	Pieceweight
Circle 3 & 4	Minimum
Circle 4 & 5	Maximum

Table 2.1 Circle Annunciator assignments

2.2 Powering up the ZM305

The indicator is always active as long as power is received. Power can be supplied by:

- AC power cord connected to a properly grounded outlet (100 VAC 240 VAC, 50 or 60 Hz)
- ZM-BAT Optional external non-charging battery pack with 4 D cells
- DC power source (12 to 36 VDC)

2.3 Entering a negative number

To enter a negative number, press the **C** key to clear the current value from the display. With only one digit displayed press **SELECT**. The first character will be the (-) negative sign. Enter the rest of the digits normally.

3 Truck In/Out Operation

This chapter covers the operation of the ZM305 truck scale indicator.



You can view the gross, net and tare display values by repeatedly pressing the **SELECT** key.

3.1 General weighing

This section covers general weighing: Gross, tare and net weighing.

3.1.1 Gross weighing



To change unit of measure, press UNITS.

To perform gross weighing, power up the unit and follow these steps:

- 1. Empty the scale and press **ZERO** to zero the display ...
 - **0** is displayed and the *center-of-zero* annunciator lights.
- 2. Place item to be weighed on the scale ...
 - Weight is displayed.
- 3. Repeat steps 1 and 2.

3.1.2 Net weighing

Net weighing is available via three types of tare entry.

Pushbutton tare When enabled press **TARE** to tare the weight on the scale.

Entered tare When enabled key in a tare weight and press **TARE** to set.

Preset tare When enabled press **TARE** to recall a preset tare numbered 1-10.



Pushbutton and Entered Tares can be enabled simultaneously. If Preset Tare is enabled, Pushbutton and Entered Tares are automatically disabled.

There is an auto tare clear feature. If this is enabled, after a weighment, when the weight falls into the gross zero band, tare is cleared to zero.



Definition: Gross zero band - this is a configured value that defines a window around gross zero. This is used in several ways in different applications.

The three types of tare are explained below.

3.1.3 Using Pushbutton Tare

To perform a net weighment using pushbutton tare, power up the unit and follow these steps:

1. Place item to be tared on the scale ...

Weight is displayed.

2. Press TARE ...

0 is displayed and the *NET* annunciator lights.

3. Place material to be weighed into or on the tared item on the scale ...

Net weight of material is displayed.

- 4. Repeatedly press **SELECT** to view the gross, tare, and net values.
- 5. If repeated weighments use the same tared item, you do not need to establish a new tare value as described in step 1 and 2.
- 6. To clear a tare value, press and hold the **TARE** key until ...

cLEArEd is displayed.

Using Entered Tare

To perform a net weighment using entered tare, the following steps describe a typical operation:

1. With no weight on the scale, if the display does not read **0** press **ZERO** ...

0 is displayed and the center-of-zero annunciator lights.

2. Key in the tare value of the container or box that will be used to hold the material that requires a net weight value, and press **TARE** ...

Tare weight is displayed as a negative value and the *NET* annunciator lights.

3. Place the container or box and material to be weighed on the scale ...

Net weight of material is displayed.

- 4. If repeated weighments use the same tared item, you do not need to establish a new tare value as described in step 2.
- 5. To remove the tare weight from the scale, enter **0**, then press **TARE** ...

The tare is cleared and the scale is in gross weigh mode.

Using Preset Tare

Preset tares are available if entered in a password protected menu by a supervisor. There can be up to 10 tares numbered 1-10. To perform a net weighment using one of the preset tares, follow these steps:

With no weight on the scale, if the display does not read **0** press **ZERO** ... 1.

0 is displayed and the center-of-zero annunciator lights.

2. Press TARE ...

Tare number entry screen appears.

3. Key in the preset tare number and press **ZERO** ...

> Tare weight is displayed as a negative value and the *NET* annunciator lights.

4. Place container or box and material to be weighed on the scale ...

Net weight of material is displayed.

- 5. Repeat step 4 until you are finished using that tare weight.
- To clear a tare value, press and hold TARE until ... 6.

cLEArEd is displayed.



Tare is removed automatically if Auto Tare Clear is enabled.



If the active unit of measure is lb-oz then tare weights must be entered in the oz equivalent. To enter 2 lb 4.5 oz you would need to enter 36.5 oz (2 lb = 32 oz plus the 4.5)

3.2 Truck inbound-outbound operations

This indicator is designed to streamline the collecting of net weights from inbound and outbound trucks. Use the **IN/OUT** key for transactions involving non-Fleet trucks. Use the **FLEET** key for transactions involving Fleet Trucks that already have a stored tare weight.

Until a Truck ID is entered the **PRINT** key can be used for General weighing transactions using the configured protocols. Once a Truck ID is entered the **PRINT** key will be associated with an Inbound or Outbound Ticket transaction.

3.2.1 IN/OUT key operation

 Press the IN/OUT key to perform a Truck Inbound or Outbound transaction. The indicator must be in the gross weight mode or the message *cAnt* is displayed momentarily.

truckld is briefly displayed followed by the last active truck ID (last digit is flashing)

2. Press **ZERO** to accept the displayed ID...

OR

Use the numeric keypad to enter a different Truck ID and press **ZERO** to accept ...

When entering the Truck ID:

- If the ID is already in use as a Fleet truck, the display will show *cAnt* then *FLEEtId* and then return to the weight screen.
- If the ID does not have a stored Inbound transaction the display will show *inbnd* (proceed to step 1)
- If the ID has a stored Inbound transaction the display will show outbnd (proceed to step 2)

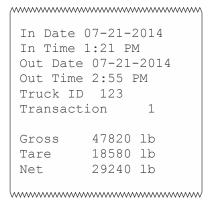
Inbound transaction (1st weighment)

1. When the truck is on the scale and weight is stable press **PRINT** to store and print the Inbound transaction. Below is an example of an Inbound ticket:

In Date 07-21-2014
In Time 1:21 PM
Truck ID 123
In Weight 18580 lb

Outbound transaction (2nd weighment)

When the truck is on the scale and weight is stable press PRINT to update totals for this Truck ID and print the Outbound transaction. Below is an example of an Outbound ticket:



If the Truck I/O transaction is no longer required, press and hold the IN/OUT
key until io cLr is displayed to exit from the Truck I/O mode. The PRINT key
can again be used for General weighing operation.

3.2.2 FLEET key operation

Until a Fleet Truck ID is entered the **PRINT** key can be used for General weighing transactions using the configured protocols. Once a Fleet Truck ID is entered the **PRINT** key will be associated with a Fleet Ticket transaction.

1. Press the **FLEET** key to perform transactions for Fleet trucks that have an assigned tare weight.

FLEEtId is briefly displayed followed by the last active truck ID (last digit is flashing)

2. Press **ZERO** to accept the displayed ID ...

OR

Use the numeric keypad to enter a different Fleet ID. Press ZERO to accept ...

When entering the Fleet ID:

- If the ID exists as a valid Fleet Truck the display will show FLEEt
 momentarily and the PT (preset tare) annunciator lights as the stored
 Fleet Truck Tare weight is loaded into the active Tare. If no truck is on
 the scale the stored Tare will be displayed as a negative weight.
- If an entered Fleet ID does not exist, the display will show not Fnd momentarily. Fleet IDs must be entered in the Supervisor menu before they can be used.
- If the entered ID is associated with a Truck I/O record the display will show cAnt and io id briefly and then return to the weigh screen.

Fleet transaction

1. When the truck is on the scale and weight is stable press **PRINT** to update totals for this Fleet ID and print the Fleet transaction. Below is an example of a Fleet ticket:

Date 07-21-2014
Time 09:45 am
Fleet ID 123
Transaction 1

Gross 47820 lb
Tare 18580 lb PT
Net 29240 lb

2. If the Fleet transaction is no longer required press and hold the **FLEET** key until **FLt cLr** is displayed to exit from the Fleet mode. The **PRINT** key can again be used for General weighing operation.

3.2.3 REPORT key operation

The REPORT key allows you to print four different printed reports: **rEPrint**, **in rPt**, **out rPt**, and **FLt rPt**. Follow these steps to print a report.

1. Press the **REPORT** key ...

rEPrint is displayed.

 Use the UNITS or PRINT key to scroll through the other three choices. When your choice is displayed, press the ZERO key to print the report. Below are explanations for each report:

rEPrint	This choice reprints the last Inbound, Outbound or Fleet transaction ticket. The lineREPRINT will be added to the bottom of the ticket. The data is an exact duplicate of the last printout.
in rPt	Prints the report of all the Trucks that have recorded an Inbound transaction but have yet to complete the Outbound transaction. Individual or all Inbound records can be cleared in the Supervisor menu.
out rPt	Prints the report of all the Truck ID's and associated totals that have completed an Outbound transaction. Individual or all Outbound records can be deleted in the Supervisor menu.

FLt rPt Prints the report of all the Fleet Truck ID's and tare weights and associated totals. Individual or all Fleet records can be deleted in the Supervisor menu.

3.2.4 Using setpoints

Setpoints are values (weight) at which outputs are triggered automatically. Outputs can control relays connected to valves, lights, other machinery, etc. Setpoint outputs can be configured in the setpoint menu shown in Figure 3.1.

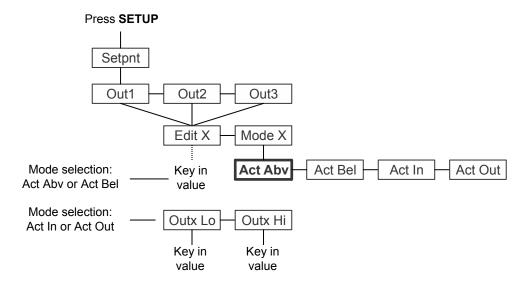


Figure 3.1 Setpoint menu



Default Setpoint operation Mode = Active Above

Outputs must be enabled for setpoints to operate. See the Service Manual:

Below Configured Value: Outputs are OFF Annunciators are OFF

Above Configured Value: Outputs are ON Annunciators are ON

The setpoint outputs and setpoint annunciators logic state can be inverted from their default settings. Refer to details in the password protected menu settings in the section titled *Setpoint on page 41*.

Follow these steps to configure the outputs:

1. Press **SETUP** ...

out1 is displayed. This is the weight value for setpoint 1. You can access out2 or out3 by pressing the UNITS key. The following instructions apply to any of these three outputs.

Press SELECT ...

Edit X is displayed. *X* being the number of output.

3. Press UNITS ...

ModE X is displayed. This menu item sets the function of the output. Mode selection must be made before entering the Out value.

4. Press SELECT ...

The current Mode setting for the selected Output is displayed. The Mode settings are listed below:

Act AbV (default) The output is active when the weight is above the

set value

Act bEL The output is active when the weight is below the

set value

Act in The output is active when the weight is inside of

the low and high set values

Act out The output is active when the weight is outside of

the low and high set values

5. Press **UNITS** or **PRINT** to scroll through the choices shown above and then press **ZERO** to accept the displayed Mode ...

ModE X is displayed.

6. Press UNITS ...

Edit X is displayed. Set the value or values for the output under this menu item.

Press SELECT ...

If you selected Mode *Act AbV* or *Act bEL*, a value entry screen is displayed. Go to step 8.

If you selected Mode *Act in* or *Act out*, *outX Lo* is displayed. This is one of two value entry screens under *Edit X*. Go to step 9.

8. Key in a value the you want the output to activate above or below and press **ZERO** to accept the value.

Edit X is displayed. Go to step 13.

9. Key in a value for **outX Lo** and press **ZERO** to accept ...

outX Lo is displayed.

10. Press UNITS ...

outX Hi is displayed.

11. Key in a value for **outX Hi** and press **ZERO** to accept ...

outX Hi is displayed.

12. Press the TARE key ...

Edit X is displayed.

13. Press the **TARE** key ...

OutX is displayed.

- 14. Repeat steps 1 through 12 for out2 and out3.
- 15. Press **TARE** repeatedly to return to normal weighing mode with the setpoints active.

3.2.5 **Printing**

If a Truck IO or Fleet transaction is in process, when **PRINT** is pressed the associated ticket print format will be transmitted though the configured port.

If a Truck transaction is not in process then when you press the **PRINT** key, the configured print format will be output through the configured port to the connected peripheral device. The indicator can be configured to only allow one print for each weighing sequence. If PRINT is pressed when so configured. cAnt is displayed instead of printing again.

Refer to Default print formats on page 35.

Printing any of the configured print formats is possible using the Numbered Print feature. Enter the print format number and then press the **PRINT** key. The selected print format will be transmitted out all ports that are configured to print. This feature is disabled during a Truck In/Out transaction sequence. If the Truck transaction is no longer required, press and hold the IN/OUT or FLEET key to reset the transaction sequence.

3.2.6 **ID Entry**

An ID can be entered for use with transmitted or printed transactions. Press and hold the **ID** key and the message *id* is displayed followed by the current ID value. Enter up to seven digits (numeric only) and press **ZERO**. To review press the ID key and the active ID will be displayed for a few seconds before returning to normal operation.

3.3 Traffic light controls

Additional traffic light control information can be found under *Lite* in the Supervisor menu found on page 51.

3.3.1 **START key**

The **START** key will update the XR4500 application print token (A65) to use characters that control the green light control command on a XR4500TL remote scoreboard equipped with the traffic light feature.

3.3.2 STOP key

The **STOP** key will update the XR4500 application print token (A65) to use characters that control the red light control command on a XR4500TL remote scoreboard equipped with the traffic light feature.

4 Menus

Password protected menus are available to configure the indicator and/or view information.

Accessing the menus

Follow these steps to access the menus in the ZM305.

1. With the indicator powered up and in normal operating mode, press and hold SETUP ...

Pass is displayed, prompting you to enter the password.

2. Key in the password for the menu you want and press the **ZERO** key ...

The first item in the top level of the menu you accessed is displayed.

3. Use the navigation keys, shown below, to navigate through the menu structure. The symbols in the chart appear on the bottom of the keys.

> Press **SELECT**/ ▼ to move down in a menu Press **TARE**/ **\(\)** to move up in a menu, except at the bottom item in a menu, then use **ZERO**/ _____ Press **PRINT**/ ◀ to move left in a menu Press **UNITS**/ **\rightarrow** to move right in a menu Press **ZERO**/ _____ to accept a value or choice and move up in the menu. Press **IN/OUT** to abort numeric entries or as an escape from a menu item

4.2 Menu annunciators

Right flashing / others off

The menu structure is made up of menu items, parameters, value entry screens and lists from which you choose one item. To help you know where you are in the menu, the bargraph at the top of the display is on while the indicator is in the menus and will change appearance according to the following rules:

All segments flashing	This means you are in the menu structure but not in any of the following screens.
Center flashing / others solid	This means you are in a parameter prompt screen.
Center flashing / others off	This means you are in a numeric entry screen. Enter a number and press ZERO to accept.

This means you are in a list. Scroll through the choices with the PRINT and UNITS keys and press ZERO to accept.

1. If you are at the bottom item in a menu use ZERO to accept a choice or value and move up a level, or use IN/OUT to escape and move up one level without accepting the choice or value. From that point, press TARE repeatedly until ...

SAVE no is displayed. This means "Do not save changes."

Press UNITS to scroll through the choices: SAVE no, SAVEYES and CAnCEL.
 Press ZERO to accept the displayed choice.

If you choose **SAVE no** or **SAVEYES** the indicator exits the menu and returns to normal weighing mode.

OR

If you choose CAnCEL, the indicator remains in the menu.

4.4 USER level menus

The USER level menus are available to the user. The other menu levels are for supervisors and technicians only.

The USER level (password 111) contains the User, About, and Audit menus arranged as shown in Figure 4.1.

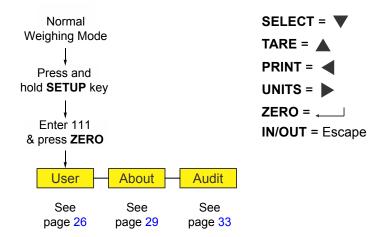


Figure 4.1 USER level (password 111) menus

4.5 User menu

The User menu is shown in Figure 4.2.

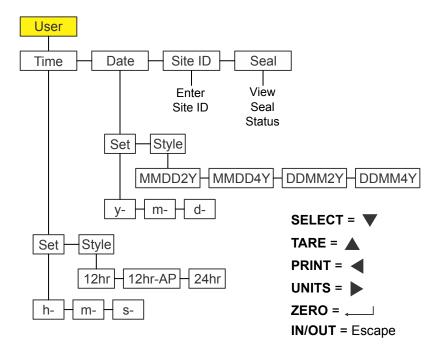


Figure 4.2 User menu

Use this menu to set the time and date, to enter a site ID, and view the physical seal status. Each is explained below:

4.5.1 Time

User **↓** Time



The \checkmark and \Rightarrow symbols used in this section stand for direction moved in the menu. So User \checkmark Time, shown above, illustrates that you move down from **uSEr** to **tiME**. This will help you keep track of where you are in the menu structure.

1. Access the User menu (see *Accessing the menus on page 24*) and press **SELECT** ...

tiME is displayed. Use this to set the time and clock style.

2. Press **SELECT** ...

SEt is displayed.

3. Press SELECT ...

h- x is displayed, with the **x** flashing. This is a numeric entry screen for the hour value.

- 4. Key in the hour of the day using military (24 hr) time and press **ZERO** to accept ...
 - **M- x** is displayed, with the **x** flashing. This is a numeric entry screen for the minute value.
- 5. Key in the minute value and press **ZERO** to accept ...
 - **S- x** is displayed, with the **x** flashing. This is a numeric entry screen for the second value.
- 6. Key in the seconds value and press **ZERO** to accept ...

SEt is displayed.

7. Press UNITS ...

StYLE is displayed. Use this to set the style of clock for printouts. Choices are **12hr**, **12hr-AP** (AM/PM) and **24hr** (military time).

8. Press SELECT ...

12hr is displayed.

9. Press **UNITS** to scroll through the choices. Press **ZERO** to accept the displayed choice ...

StYLE is displayed.

10. Press TARE ...

tiME is displayed.

4.5.2 Date

User ↓ Time → Date

1. From *tiME*, press **UNITS** ...

dAtE is displayed.

2. Press SELECT ...

SEt is displayed.

- 3. Press SELECT ...
 - y- x is displayed, with the x flashing. This is a numeric entry screen for the year value.
- 4. Key in the year and press **ZERO** to accept ...
 - **M- x** is displayed, with the **x** flashing. This is a numeric entry screen for the month.
- 5. Key in the month value and press **ZERO** to accept ...
 - **d- x** is displayed, with the **x** flashing. This is a numeric entry screen for the day value.
- 6. Key in the day value and press **ZERO** to accept ...

SEt is displayed.

7. Press UNITS ...

StYLE is displayed. Use this to set the style of date for printouts. Choices are *MMDD2Y*, *MMDD4Y*, *DDMM2Y* and *DDMM4Y*.

8. Press SELECT ...

MMDD2Y is displayed.

9. Press **UNITS** to scroll through the choices. Press **ZERO** when your choice is displayed ...

The choice is made and StYLE is displayed.

10. Press TARE ...

dAtE is displayed.

4.5.3 Site ID

User ✓ Time → Date → Site ID

1. From **dAtE**, press **UNITS** ...

SitE id is displayed.

2. Press SELECT ...

A numeric entry screen is displayed.

3. Key in a site ID number on the numeric keypad and press **ZERO** to accept ...

SitE id is displayed.



The Site ID can be used in transmitted or printing information. ASCII characters 32-126 can be used.

4.5.4 Seal

User \downarrow Time \rightarrow Date \rightarrow Site ID \rightarrow Seal

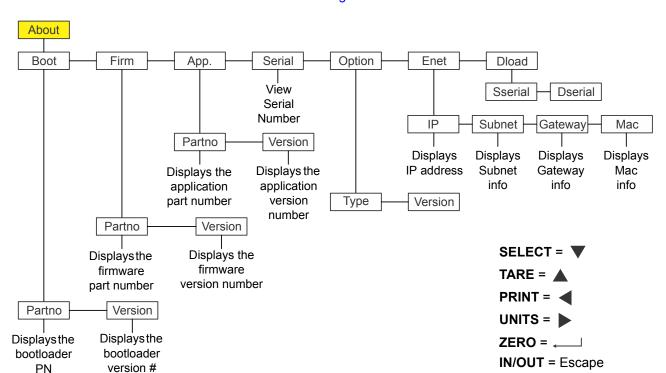
1. From **SitE id**, press **UNITS** ...

SEAL is displayed.

2. Press SELECT ...

unSEALE or **SEALEd** is displayed. This is the status of the physical seal inside the indicator. If the unit is sealed, no changes can be made to the configuration of the indicator.

- 3. Press **ZERO** to return to the **SEAL** display.
- 4. To exit the menu, see Exiting the menus on page 25.



The About menu is shown in Figure 4.3.

Figure 4.3 About menu

Use this menu to display information about the various items shown in Figure 4.3. Each is explained below:

4.6.1 Boot

About **↓** Boot

1. Access the About menu and press **SELECT** ...

boot is displayed.

2. Press SELECT ...

PArtno is displayed

Press SELECT ...

The 1st half of the bootloader PN is displayed. Press **UNITS** to view the 2nd half.

- 4. Press **ZERO** to return to the **PArtno** display.
- 5. Press UNITS ...

VErSion is displayed.

6. Press **SELECT** ...

The version number of the bootloader is displayed.

- 7. Press **ZERO** to return to the **VErSion** display.
- 8. Press **TARE** to return to the **boot** display.

4.6.2 Firm and App

About Boot → Firm and App

1. From **boot**, press **UNITS** ...

FirM is displayed. This stands for firmware.

2. Repeat the same pattern of key presses in steps 2 through 7 to view the part number and version for the *FirM*. and *APP* menu items.

4.6.3 Serial

About \checkmark Boot \rightarrow Firm \rightarrow App \rightarrow Serial

1. With **APP** displayed, press **UNITS** ...

SEriAL is displayed.

2. Press SELECT ...

The first four digits of the indicator serial number are displayed. Press **UNITS** to view the last five digits.

3. Press **TARE** to return to the **SEriAL** display.

4.6.4 Option

About \downarrow Boot \rightarrow Firm \rightarrow App \rightarrow Serial \rightarrow Option

1. From **SEriAL**, press **UNITS** ...

oPtion is displayed.

2. Press SELECT ...

VErSion is displayed. This stands for the software version of the currently installed option card. This can be useful service information.

3. To view the version, press **SELECT** ...

The software version number is shown.

4. Press **ZERO** ...

oPtion is displayed.

Press UNITS ...

tYPE is displayed. This stands for the type of option card installed. The four option cards are: Analog, 802.11g wireless, USB-d, and Current Loop/RS485/RS422.

6. Press **SELECT** ...

The currently installed option card name is displayed.

7. Press **ZERO** ...

tYPE is displayed.

8. Press TARE ...

oPtion is displayed.

4.6.5 Enet

About \downarrow Boot \rightarrow Firm \rightarrow App \rightarrow Serial \rightarrow Option \rightarrow Enet



If the indicator is connected to an ethernet network, the values displayed will be the current assigned addresses.

1. From **oPtion**, press **UNITS** ...

EnEt is displayed. Use this item to view the values for the IP, Subnet, Gateway and MAC addresses.

2. Press SELECT ...

iP is displayed. Use this item to view the four part IP address.

- 3. Press SELECT ...
 - 1 XXX is displayed. This is first octet of the IP address
- 4. Press **ZERO** ...
 - 2 XXX is displayed. This is second octet of the IP address.
- 5. Press **ZERO** ...
 - 3 XXX is displayed. This is third octet of the IP address.
- 6. Press **ZERO** ...
 - 4 XXX is displayed. This is fourth octet of the IP address.
- 7. Press **ZERO** ...

iP is displayed.

8. Press UNITS ...

Subnet is displayed.

- 9. Repeat this sequence of key presses for the **Subnet**, **Gateway** and **MAC** addresses.
- 10. When finished press TARE ...

EnEt is displayed.

4.6.6 **Dload**

About \lor Boot \rightarrow Firm \rightarrow App \rightarrow Serial \rightarrow Option \rightarrow Enet \rightarrow Dload

1. From *EnEt*, press **UNITS** ...

dLoAd is displayed. This stands for download. Under **SSErIAL** you can view the serial number of the software application that created the configuration file. Under **dSErIAL** you can view the serial number of the software application that downloaded the configuration file. This is used for security and licensing purposes.

2. Press SELECT ...

SSEriAL is displayed.

3. Press **SELECT** ...

The 1st part of the serial number of the creating application of the configuration file is displayed.

- 4. Press **UNITS** two more times to see the complete serial number.
- 5. Press **ZERO** ...

SSEriAL is displayed.

6. Press UNITS ...

dSEriAL is displayed.

7. Press SELECT ...

The 1st part of the serial number of the downloading application of the configuration file was downloaded to, is displayed.

- 8. Press **UNITS** two more times to see the complete serial number.
- 9. Press **ZERO** ...

dSEriAL is displayed.

- 10. Press **TARE** until *About* is displayed.
- 11. To exit the menu, see Exiting the menus on page 25.

4.7 Audit menu

The Audit menu is shown in Figure 4.4.

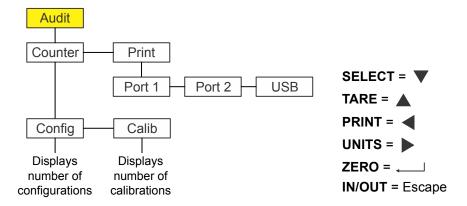


Figure 4.4 Audit menu

Use this menu to display audit counters for configuration and calibration and to print the information. Each is explained below:

4.7.1 Counter

1. Access the Audit menu and press **SELECT** ...

countEr is displayed. This has two counters that tell you how many times the indicator has been configured and calibrated.

2. Press SELECT ...

conFig is displayed.

3. Press SELECT again ...

A number appears showing how many times the indicator has been configured.

4. Press ZERO ...

conFig is displayed.

5. Press UNITS ...

cALib is displayed.

6. Press **SELECT** ...

A number appears showing how many times the indicator has been calibrated.

7. Press **ZERO** ...

cALib is displayed.

8. Press TARE ...

countEr is displayed.

4.7.2 Print

1. From *countEr*, press **UNITS** ...

Print is displayed.

2. Press SELECT ...

Port1 is displayed. This is the first of three choices: **Port 1**, **Port 2** or **uSb**. Use these to select which port to print the audit report through.

3. Press **UNITS** to scroll through the choices and press **ZERO** when your choice is displayed ...

The audit log is printed through the chosen port and *Print* is displayed.

4. This completes the Audit menu. To exit the menu, see *Exiting the menus on page 25*.

The ZM305 can communicate through these ports:

- Serial
- Ethernet
- USB
- Wireless 802.11g

5.1 Default print formats

Below are examples of the default formats that are available:

Print format #1 (GTN)

Gross 272.04 lb
Tare 95.88 lb
Net 176.16 lb

Print format #28 (Inbound ticket)

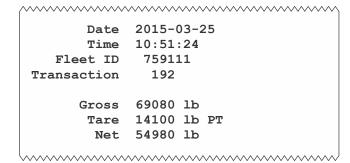
In Date 2015-03-25
In Time 10:50:45
ID 38577
In Weight 14300 lb

Print format #27 (Outbound ticket)

In Date 2015-03-25
In Time 10:50:45
Out Date 2015-03-25
Out Time 10:56:04
ID 38577
Transaction 51

Gross 51040 lb
Tare 14300 lb
Net 36740 lb

Print format #36 (Fleet ticket)



5.1.1 Report Printout Samples

INBOUND Report

/^^^^			
Inbound Vehicle Report 10:36:41 03-25-2015			
ID	Time	Date	Weight
966558	20:17	3-9-2015	49300 lb
561152	22:41	3-11-2015	6800 lb
443216	13:05	3-18-2015	59000 lb
606912	5:53	3-18-2015	11620 lb
394736	1:05	3-18-2015	13380 lb
End of Inbound Report			
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			

OUTBOUND Report

/^^^^				
Outbound Vehicle Report				
10:39:32 03-25-2015				
ID	# Trans	Total Net Wt		
674758	2	130400 lb		
806039	2	99200 1b		
961564	6	250100 lb		
735023	5	317900 lb		
495520	10	361200 lb		
End of	End of Outbound Report			
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				

FLEET Report

^^^^^					
Fleet Vehicle Report					
10:4	3:40 03-	-25-2015			
Fleet ID	Tare Wt	# Trans	Total Net	Wt	
759109	20500 lb	14	1148000	1b	
8262677	12280 lb	32	1571840	lb	
8262686	11880 lb	41	1948320	lb	
8262691	11940 lb	54	2579040	lb	
8262671	11880 lb	56	2661120	lb	
End of	Fleet Re	port			
/////////	////////	////////	/////////////////////////////////////	/////////	

6 Error messages

6.1 General messages

The following error messages may be displayed during use of the indicator:

Message	Display
Overload	
Can't fit on display or load cell not properly connected	
Underload	
Can't	cAnt
Entry not in valid range	bound5
Password entry failed	inUAL id
Remote display not receiving data from the master indicator	no dAtA
Indicator did not reach a stable zero weight within time window set for automated weighing process.	2-LocH PrESS 2Ero
Indicates the battery is enabled and TMOUT value is set but the indicator is not operating with the proper battery shutoff circuitry	o F F

6.2 Truck scale database CSV file import/export messages

The following error messages may be displayed during use of the indicator:

Message	Display
Failed to get CSV file handle	Error - 1
Failed to allocate memory for CSV file	Error-2
First line of CSV file is invalid	Error-3
Failed to read CSV file, size didn't match	Error-4
StrRowData too big	Error-5
Field count mismatch	Error-6
CSV Import field does not exist	Error-7

7 Supervisor menu

This menu, Figure 7.1, allows a supervisor to change those functions of the Truck Inbound/Outbound application that are configurable. Access the supervisor menu using the password 1793. Refer to *Accessing the menus on page 24* for instructions.

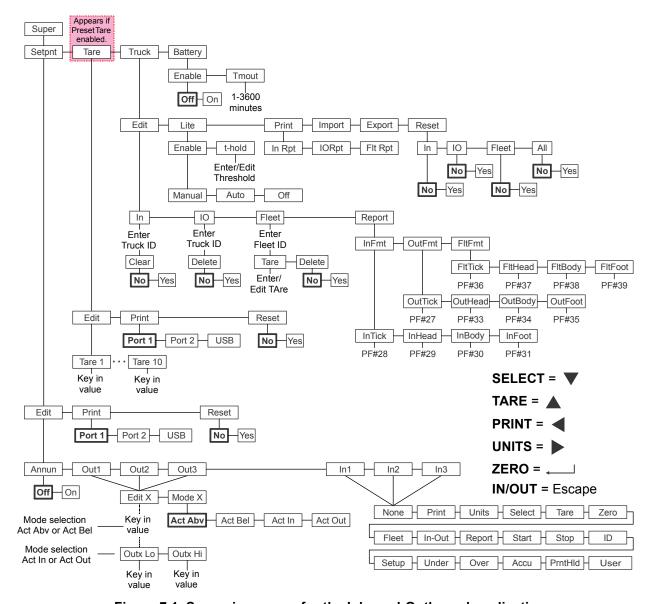


Figure 7.1 Supervisor menu for the Inbound-Outbound application



Wherever there is an option to print information, the information will print out of Port 1, Port 2 or to USB, whichever is configured.



The menus are always explained in a sequential manner to cover all information in a logical fashion. You will probably never access all the menu items in this manner. You can navigate to the area of the menu that needs to be changed by using the navigation key chart shown with the menu.

Follow these steps to set the items in the Supervisor menu.

7.1 Setpoint

Super ✓ Setpoint



The ψ and \rightarrow symbols used in this section stand for direction moved in the menu. So Super Ψ Setpoint, shown above, illustrates that you move down from **SupEr** to **SEtPnt**. This will help you keep track of where you are in the menu structure.



If you are using a battery operated indicator with any application, setpoint output #3 can be configured for shutting down the battery for power saving. See the Service manual for information on setting up setpoint outputs and optional power saving circuitry you can create to shutdown power from a battery.



A setpoint value can be entered ranging from +/- scale capacity. See Entering a negative number on page 14 for the negative numeric entry process.

See the Service manual for information on enabling the setpoint outputs. Setpoints that are not used should be disabled.

1. Access the Supervisor menu. Refer to Accessing the menus on page 24 for instructions. From SuPEr, press SELECT ...

SEtPnt is displayed. Use this to:

- set the mode of setpoint operation
- set the function of the setpoint annunciators
- enter up to three setpoint values
- select function for up to three inputs
- print the setpoint settings
- reset all setpoint settings to factory defaults.

Annunciators

2. Press **SELECT** ...

Edit is displayed.

3. Press **SELECT** ...

Annun is displayed.

This stands for annunciators, referring to the SP1, SP2 and SP3 setpoint annunciators. By default (oFF) these annunciators are ON when the selected mode of the setpoint is active or OFF when the selected mode of the setpoint is not active. If you select on, the annunciators work in the opposite fashion--OFF when the selected mode is active or ON when the selected mode is not active.

Press SELECT ...

The current setting is displayed (**oFF** or **on**).

5. Press **UNITS** to toggle between the choices and when your choice is displayed, press **ZERO** to accept ...

Annun is displayed.

Outputs

Setpoint ✓ Edit ✓ Annun → Out

6. Press UNITS ...

out1 is displayed. This is the weight value for setpoint 1. You can access out2 or out3 by pressing the UNITS key. The following instructions apply to any of these three outputs.

7. Press **SELECT** ...

Edit X is displayed. **X** being the number of output.

8. Press UNITS ...

ModE X is displayed. This menu item sets the function of the output. Mode selection must be made before entering the Out value.

Press SELECT ...

The current Mode setting for the selected Output is displayed. The Mode settings are listed below:

Act AbV (default) The output is active when the weight is above the

set value

Act bEL The output is active when the weight is below the

set value

Act in The output is active when the weight is inside of

the low and high set values

Act out The output is active when the weight is outside of

the low and high set values

10. Press **UNITS** or **PRINT** to scroll through the choices shown above and then press **ZERO** to accept the displayed Mode ...

ModE X is displayed.

11. Press UNITS ...

Edit X is displayed. Set the value or values for the output under this menu item.

12. Press SELECT ...

If you selected Mode *Act AbV* or *Act bEL*, a value entry screen is displayed. Go to step 13.

If you selected Mode *Act in* or *Act out*, *outX Lo* is displayed. This is one of two value entry screens under *Edit X*. Go to step 14.

Edit X is displayed. Go to step 18.

14. Key in a value for **outX Lo** and press **ZERO** to accept ...

outX Lo is displayed.

15. Press UNITS ...

outX Hi is displayed.

16. Key in a value for outX Hi and press ZERO to accept ...

outX Hi is displayed.

17. Press the **TARE** key ...

Edit X is displayed.

18. Press the **TARE** key ...

OutX is displayed.

Repeat steps 6 through 17 for out2 and out3.

Inputs

Setpoint Ψ Edit Ψ Annun \rightarrow Out \rightarrow In

20. Press UNITS when finished ...

in1 is displayed. This stands for input 1. Use this to assign a function to input 1 when an external switch is tripped. Default choice is **nonE**. The choices are listed in Figure 7.1.



Inputs are enabled (ON) in a separate password protected menu. Some input choices will not apply in the application that is active.

21. From *in1*, press **SELECT** ...

The current choice is displayed.

22. Press **UNITS** to scroll through the choices and when your choice is displayed, press **ZERO** to accept ...

in1 is displayed.

23. Press UNITS ...

in2 is displayed.

- 24. Repeat steps 21 through 23 for in2 and in3.
- 25. Press **TARE** when finished ...

Edit is displayed.

Print

26. Press UNITS ...

Print is displayed. Use this to print the settings under **SEtPnt**.

27. Press SELECT ...

Port 1 is displayed.

28. Press **IN/OUT** to abort the print process or press **UNITS** to scroll to the desired port and press **ZERO** to print the information ...

Print is displayed after either action.

Reset

Setpoint ↓ Edit → Print → Reset

29. Press UNITS ...

rESEt is displayed. Use this to reset the settings under **Edit** to factory defaults.

30. Press SELECT ...

no is displayed.

31. Press ZERO to abort the reset or press UNITS ...

YES is displayed.

32. Press **ZERO** to reset the settings to factory defaults ...

rESEt is displayed.

33. Press TARE ...

SEtPnt is displayed.

7.2 Tare

If Preset Tare is not enabled in a separate password protected menu, skip to step 7. If it is enabled continue to the next step.

1. Press UNITS ...

tArE is displayed.

Use this to:

- set values for up to 10 preset tares
- print the values of the preset tares
- reset all preset tares to factory defaults of 0

The following steps describe the procedures.

2. Press SELECT ...

Edit is displayed.

3. Press **SELECT** ...

tArE 1 is displayed. This is the first of the 10 preset tare values you can set.

4. Press SELECT ...

The current value is displayed with a flashing right digit.



If the active unit of measure is lb-oz then tare weights must be entered in the oz equivalent. To enter 2 lb 4.5 oz you would need to enter 36.5 oz (2 lb = 32 oz plus the 4.5)

5. Press **ZERO** to accept the displayed value or key in a new value and press **ZERO** to accept ...

tArE 1 is displayed.

6. Press UNITS ...

tArE 2 is displayed.

7. Repeat steps 4 through 6 for *tArE* 2 through *tArE* 10. Press TARE when finished ...

Edit is displayed.

Printing

8. Press UNITS ...

Print is displayed. Use this to print the preset tare values.

9. Press SELECT ...

Port 1 is displayed.

10. Press **IN/OUT** to abort the print process or press **UNITS** to scroll to the desired port and press **ZERO** to print the information ...

Print is displayed after either action.

Reset

Tare ↓ Edit → Print → Reset

11. Press UNITS ...

rESEt is displayed. Use this to reset the all the preset tares to the factory default of 0.

12. Press SELECT ...

no is displayed.

13. Press **ZERO** to abort the reset or press **UNITS** ...

YES is displayed.

14. Press **ZERO** to reset the settings to factory defaults ...

rESEt is displayed.

15. Press **TARE** ...

tArE is displayed.

7.3 Truck

Super \lor Setpoint \rightarrow Tare \rightarrow Truck

1. Press UNITS ...

trucK is displayed. Use this menu item to create, delete, print or reset Truck records, re-assign the default print formats for various Truck reports, and Import or Export Truck records.

Edit

Truck **↓** Edit

2. Press **SELECT** ...

Edit is displayed. The **Edit** menu lets you clear unnecessary inbound records, delete individual outbound records, create new or edit existing Fleet truck tare weights or delete individual Fleet truck records.

in, io, FLEEt and rEPort

3. Press SELECT ...

in is displayed. The choices on this menu level are *in*, *io*, *FLEEt* and *rEPort*.

in Use this to clear an existing Inbound transaction that has not been closed by an Outbound transaction.

•

io Use this to delete a Truck I/O record.

FLEEt Use this to create, edit or delete a Fleet ID record.

REPORT Use this to print the same reports available from the **REPORT**

key.

4. Press the **UNITS** key to scroll thru the choices. Press **SELECT** when the desired choice is displayed.

If you select in go to step 5.

If you select io go to step 10.

If you select **FLEEt** go to step 15.

If you select rEPort go to step 22

Clear Inbound records

5. With *in* displayed, press **SELECT** ...

A value entry screen is displayed.

6. Key in the Truck ID and press the **ZERO** key ...

cLEAr is displayed.

Press SELECT ...

no is displayed.

8. Press **UNITS** to toggle between **YES** and **no**. Press **ZERO** when **YES** is displayed to clear the Inbound record ...

bUSY is briefly displayed and then **in** is displayed.

9. Repeat from step 5 for any other inbound records you want to remove.

Delete Truck I/O records

10. With io displayed press SELECT ...

A value entry screen is displayed.

11. Key in the Truck ID and press the **ZERO** key ...

dELEtE is displayed.

12. Press SELECT ...

no is displayed.

13. Press **UNITS** to toggle between **YES** and **no**. Press **ZERO** when **YES** is displayed to delete the Outbound record. This will delete all transaction totals for the selected Truck ID ...

bUSY is briefly displayed and then io is displayed.

14. Repeat from step 10 for any other outbound records you want to delete.

Edit Fleet records

15. With FLEEt displayed press SELECT ...

A value entry screen is displayed.

16. Key in the Fleet Truck ID and press **ZERO** ...

If this is an existing ID, *FLEEt* is briefly displayed then *tArE*. Go to step 17.

If this is a new ID, **not Fnd** (not found) is briefly displayed followed by **Adding**, followed by **tArE**.

17. With tArE displayed you can either edit the Fleet Tare weight or go to step 19 to delete the Fleet ID. To edit a Fleet Tare weight press SELECT ...

Edit Fleet Tare Weight

The next procedure depends on if this is a new or existing Fleet ID and whether an empty Fleet truck is on the scale to establish the tare weight. If there is an empty Fleet truck on the scale (or any weight above the GZB) the live weight will be displayed. Press **ZERO** to save the live weight.



If the Tare value is not greater that the Gross Zero Band, the ID will not be saved.

New Fleet Truck ID

If the weight on the scale is below the Gross Zero Band (GZB) then **0** is displayed. Use numeric entry to manually enter the Fleet truck tare weight.

Otherwise the Saved live weight is displayed. Press **ZERO** to store this value or use numeric entry to manually enter the Fleet truck tare value.

Existing Fleet Truck ID

If the weight on the scale is below the GZB the *PT* annunciator is illuminated and the stored Fleet tare weight is displayed. Use numeric entry to change or press **ZERO** to continue to use this as the Fleet truck tare value.

Otherwise the Saved live weight is displayed. Press **ZERO** to store the live weight or use numeric entry to manually enter the Fleet truck tare value. After pressing **ZERO** to save the value, **tArE** is displayed.

18. To add more Fleet ID's press the **TARE** key to return to step 15 or continue to press **TARE** to exit back to normal operation.

Delete Fleet ID

19. Press UNITS ...

dELEtE is displayed.

20. Press SELECT ...

no is displayed. This is your option not to delete the Fleet ID.

21. Press **UNITS** to toggle between **YES** and **no**. Press **ZERO** when your choice is displayed ...

If you choose **no**, the ID is not deleted and the display shows **dELEtE**.

If you choose **YES**, **bUSY** is briefly displayed, the ID is deleted and **FLEEt** is displayed. To delete more Fleet IDs return to step 15 or continue to press **TARE** to exit back to normal operation.

Print Truck Reports

22. From *FLEEt* press UNITS ...

rEPort is displayed. This menu item lets you assign a print format number to the various print tickets and reports. The choices are inbound **inFMt**, outbound **outFMt**, and fleet **FLtFMt**. Each one has a separate print format assigned for the Ticket Transaction, the Header, the Body and the Footer.

Under *inFMt* are these items:

inticK This defines which print format is used during the Inbound

ticket transaction.

inhEAd This defines which print format is used for the header or

top of the Inbound report.

inbodY This defines which print format is used for the body of the

Inbound report

inFoot This defines which print format is used for the footer or

bottom of each Inbound report.

Under outFMt are the same items except the prefix is changed to out:

outticK, outhEAd, outbodY, outFoot

Under *FLtFMt* are the same items except the prefix is changed to *FLt*:

FLtticK, FLthEAd, FLtbodY, FLtFoot

23. Press SELECT ...

Report Print Formats

For example, the Ticket transaction might print the Truck ID, the time/date, and associated weight values for the type of transaction.

For example, the Header might print the scale owner company name, address and time/date of the report and appropriate labels to align with the information contained in the Body of the report.

The Body would print the Truck ID and associated weights and times (Inbound only). The Body print format performs automatic "loop" printing of the data contained in the print format. The "loop" is controlled by the Truck In, Truck Out and Fleet ID's print tokens and will continue to repeat the print format for all ID's that are stored in their respective areas of the database.

For example, the Footer might only print "End of xxxxx Report" or just send a form feed character for proper paper advance upon completion.

Report Printing Structure

When a report is printed, all 3 associated print formats, Header, Body and Footer, are automatically sent to the assigned or binded port. Examples of the default print formats for Tickets and Reports are shown on page 35. Proper editing of these print formats using the internal Editor or the PC software application tool may be necessary for specific application requirements.

See the Supervisor menu in Figure 7.1 to see the default print formats assigned to each item and how to navigate to any item you wish to change.

Editing of a print format requires access to a password protected menu and will not be covered in this manual.

Default Report Print Format Numbers

Report	Ticket	Header	Body	Footer
Inbound	28	29	30	31
Outbound	27	33	34	35
Fleet	36	37	38	39

24. From *rEPort*, press TARE ...

Edit is displayed.

Lite menu

25. From *Edit*, press UNITS ...

LitE is displayed. This item allows configuration of set point 1 & 2 to control an external traffic light or device based on GTN operations.



Outputs #1 and #2 must be enabled for the set point controls to function properly.

Press SELECT ... 26.

EnAbLE is displayed. Choose from these three options under enable:

BOTH the set point outputs #1 & #2 and the serial Manual commands for the XR4500TL are controlled by the

START/STOP keys.

Auto BOTH the set point outputs #1 & #2 and the serial commands for the XR4500TL are controlled as follows:

- · Set point #1 is active for green light when scale is considered at ZERO while inside gross zero band, or when the **PRINT** key has been processed. (Scale Configuration Parameter)
- Set point #2 is active for red light when gross weight is above the threshold value.
- Set point #3 is available for standard configuration (cutoff) as long as the battery saver feature is not used.

OFF

Set point controls are controlled by standard configuration settings (cutoffs) and ONLY the XR4500TL works with the START/STOP keys.

27. From *EnAbLE* press the **UNITS** key ...

t-HoLd is displayed. This stands for Threshold. Use this to configure the weight value that must be exceeded for the light control to activate the red light (set point #2) when configured for the AUTO mode of operation.



START key

The START key will update the XR4500 application print token (A65) to use characters that control the green light control command on a XR4500TL remote scoreboard equipped with the traffic light feature. The characters are included in the default print format that is assigned to Broadcast to the remote scoreboard display.

STOP key

The STOP key will update the XR4500 application print token (A65) to use characters that control the red light control command on a XR4500TL remote scoreboard equipped with the traffic light feature. The characters "@, & <CR>" are included in the default print format that is assigned to Broadcast to the remote scoreboard display.

Print menu

28. From *LitE*, press UNITS ...

Print is displayed. This menu item allows you to print the transaction reports. These selections are from the **REPORT** key but are also included in the Supervisor menu if the **REPORT** key is disabled.

in rPt Prints the report of all the Trucks that have recorded an

Inbound transaction but have yet to complete the Outbound transaction. Individual or all Inbound records can be cleared using the *rESEt* menu item explained on

page 54.

out rPt
Prints the report of all the Truck ID's and associated totals

that have completed an Outbound transaction. Individual or all Outbound records can be cleared using the **rESEt**

menu item explained on page 54.

FLt rPt Prints the report of all the Fleet Truck ID's and tare

weights and associated totals. Individual or all Fleet records can be cleared using the **rESEt** menu item

explained on page 54.

29. To exit the reports level, press **TARE** ...

Print is displayed.

Import

Truck \downarrow Edit \rightarrow Lite \rightarrow Print \rightarrow Import

The Import menu allows for transfer of a Truck Scale database file from a USB memory device when inserted into the USB port of the indicator.

For a typical truck scale operation the only reasons to import a database would be to:

- Add Fleet Truck ID's and Tare weight records into the scale without having to use the EDIT menu
- Edit existing totals to correct errors or missing weighments such as failure to record an Outbound transaction or using an incorrect Truck ID.

To successfully Import the truck scale database into the indicator the file must be in the proper CSV (comma separated value) format. To insure that the CSV file format is acceptable, the following procedure is recommended. Perform an In/Out transaction, and if the operation uses Fleet trucks, add at least one Fleet Truck ID / Tare weight in the EDIT menu. Then EXPORT the database file to the USB thumbdrive. The database file will show the required data fields that must be maintained.

Open the file using Excel and copy and paste a row containing the entered Truck values into the number of rows necessary. Edit the pasted rows with the required data and be sure to put 0's into unused columns.

Save the file on the thumbdrive and IMPORT back to the indicator to update the Truck database.



The USB thumbdrive must be installed before accessing the Import or Export menus.

30. From *Print*, press UNITS ...

iMPort is displayed.

Use the import menu to import the Truck Scale database file from a USB thumbdrive using the USB port of the indicator.



The database can contain up to 1000 separate truck records.

Importing a database file will overwrite all existing Truck records stored in the indicator. This database file includes all Truck In/Out and Fleet ID's, open Inbound transactions with time, date and weight, and Gross, Net, Tare, and Transaction Count totals for completed In/Out and Fleet transactions.

31. With *iMPort* displayed, press **SELECT** ...

buSY and **donE** are briefly displayed as the database file is imported. **iMPort** will be displayed when finished.

32. Press the UNITS key ...

EXPort is displayed. Use the export menu to export the Truck Scale database file to a USB thumbdrive using the USB port of the indicator.

Export

Truck \checkmark Edit \rightarrow Lite \rightarrow Print \rightarrow Import \rightarrow Export

The Export menu allows for transfer of a CSV (Comma Separated Values) file containing the Truck Scale database to a USB memory device when inserted into the USB port of the indicator.

33. From *EXPort*, press **SELECT** ...

buSY and **donE** are briefly displayed as the database file is exported. **EXPort** is displayed when finished.

34. Press the UNITS key ...

rESEt is displayed. The Reset menu lets you delete stored records in the truck database.

Below is a sample of a CSV file structure:

truckld	tareFleet	weight1	weight1date	weight1time	grossTotal	netTotal	tareTotal	transCount	units
111	0	0			300000	200000	100000	10	lb
222	0	0			800000	400000	400000	20	lb
123	12300	0			1500000	1000000	500000	30	lb
456	14550	0			39550	25000	14550	1	lb
1	11240	0			62480	40000	22480	2	lb
5	0	16210	2/3/2014	9:51:39	0	0	0	0	lb

Reset

Truck \lor Edit \rightarrow Lite \rightarrow Print \rightarrow Import \rightarrow Export \rightarrow Reset

35. From *rESET*, press **SELECT** ...

in is displayed.

36. Press **UNITS** or **PRINT** to scroll through the choices: *in*, *io*, *FLEEt* or *ALL*. With the type of record you want to clear or delete displayed, press **SELECT** ...

no is displayed.

37. Press UNITS to display YES and then press ZERO to clear the record ...

The display will show **BUSY** and then return to **in**, **out** or **FLEET** depending on which menu item was selected



Resetting the **IN** records will clear all stored Inbound records that have not yet completed an Outbound transaction.

Resetting the **OUT** records will delete all stored Truck I/O ID's and associated Totals.

Reset the **FLEET** records will delete all stored Fleet Truck ID's, Tare weights and associated Totals.

Deleting ALL will delete all the above Truck records from the database.

38. Repeatedly press the **TARE** key ...

until *trucK* is displayed.

1. From *trucK*, press **UNITS** ...

bAttErY is displayed. Use this to enable the battery and to set a timeout length (in minutes). If this time expires with no scale or keypad activity, setpoint #3 will change states so the battery will shut off if the proper external circuitry is provided. See the Service manual.

Enable

Battery ♦ Enable



Only enable the battery and set the **tMout** value if the battery has the proper external shutoff circuitry. If battery use is enabled, setpoint output 3 cannot be used for setpoints in any application. It is used as a shutoff signal.

2. Press SELECT ...

EnAbLE is displayed. Choices are **oFF** and **on**. Choose **oFF** to disable battery usage. Choose **on** to enable battery usage.

3. Press **UNITS** to toggle between the choices and when your choice is displayed, press **ZERO** to accept ...

EnAbLE is displayed.

Timeout

4. Press UNITS ...

tMout is displayed. This stands for timeout. Use this to set the length of time before inactivity of the scale and keypad cause battery power to be shutoff. Values between 1 and 3600 minutes are valid. **This function only works if the battery has shutoff circuitry.**

5. Press **SELECT** ...

A numeric entry screen appears.

6. Key in a value, in minutes and press **ZERO** to accept ...

tMout is displayed.

7. This completes the Supervisor menu for General Weighing. Repeatedly press **TARE** until the indicator returns to normal weighing mode.

The current weight value is displayed.

Supervisor menu

Avery Weigh-Tronix

Avery Weigh-Tronix USA

1000 Armstrong Dr.
Fairmont MN 56031 USA
Tel:507-238-4461
Fax:507-238-4195
Email: usinfo@awtxglobal.com
www.averyweigh-tronix.com

Avery Weigh-Tronix UK

Foundry Lane, Smethwick, West Midlands, England B66 2LP Tel:+44 (0) 8453 66 77 88 Fax:+44 (0)121 224 8183 Email: info@awtxglobal.com www.averyweigh-tronix.com