USER MANUAL

INDICATOR, REPEATER, TRANSMITTER OF WEIGHT “DFW” SERIES

Review	3.17
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1 INTRODUCTION

The purpose of this manual is to help the user get to know the weight indicator's various functioning modes, the keys' functions and the display indications.
We advise to carefully follow the instructions for programming the weight indicator; by taking actions not indicated this manual, one could cause the scale to not work properly.
In addition to having all the characteristics of a high precision scale, the indicator has the unit of measure / pounds conversion function, the gross weight / net weight conversion, set point on gross weight or net weight, in/out weigh, universal repeater single scale,single-multiscale repeater, approved transmission of the weight to PC with alibi memory, +/- tolerance check, sample weight percentage, freezing the weight on the display, peak detector, weighs totaliser and piece counter.
The indicator adapts itself to normal weighing applications in either industrial settings, such as during factory production processes, or that of commerce, such as legal for trade applications, also satisfying the frequently needed ability to transmit and print the data through its two bidirectional serial ports.

This manual has been made as carefully and exactly as possible; in any case, your suggestions are always welcome.

WARNING

This instrument is covered under warranty provided that **IT HAS NOT BEEN OPENED BY THE USER** for any reason.
Any attempt to repair or alter the unit can expose the user to the danger of electric shock and will void any warranty condition.
If any problem with the unit or system has been experienced please notify the manufacturer or the dealer from which the instrument was acquired. In any case **REMOVE POWER** before any operation.

The instrument is isolated from the area of dangerous voltage and user accessible parts.

- Do not pour liquids on the indicator!
- Do not use solvents to clean the indicator!
- Do not expose instrument to either direct sun light or any heat sources!
- Always mount the indicator and platform in a vibration free setting!
- Do not install in an environment with any risk of explosion!

Everything not expressly described in this manual has to be considered as improper use of the equipment.

Do not install in an environment with danger of explosion

The crossed-out wheeled bin on the product means that at the product end of life, it must be taken to separate collection or to the reseller when a new equivalent type of equipment is purchased. The adequate differentiated refuse collection in having the product recycled, helps to avoid possible negative effects on the environment and health and supports the recycling of the materials of which the equipment is made. The unlawful disposal of the product by the user will entail fines foreseen by the current regulations.

Symbols used in the manual

	CAUTION! This operation must be performed by qualified personnel
	CAUTION! Symbol refer to work on high-energy lines: only qualified personnel may require or perform this operation
	CE COMPLIANCE
	IDENTIFICATION OF ACCURACY CLASS.
	It means that you are describing an advance feature (hence intended for technical personnel) that will be detailed in the technical manual.

2 MAIN TECHNICAL SPECIFICATION

Supply

Model	Internal power supply 110-240Vac 50-60Hz	External power supply 110-240Vac 50-60Hz	Battery internal rechargeable	4 batteryes type “AA”	Power supply from PC via USB connector	Recharger
DFW	•		•			
DFWL		•		•		
DFWLB			•			•
DFWLI	•					
DFWLIB		•	•			
DFWLIDCC	•					
DFWLID			•			•
DFWLAP		•	•			
DFWLKR		•	•			
DFWPM				•	•	

Operating temperature

From -15 to +40 °C (5 to 104 °F) (with even temperature).

General functions

- Operation with a balance
- Subtractive tare over the entire range.
- Auto power off from 1 to 255 minutes programmable, or off.
- Low battery warning on display through symbols and message "LoW.bAt" written on display.

3 WIRING AND POWER

3.1 CONNECTING THE WEIGHING SYSTEM

The connection of the system depends on the weighing platform and indicator model purchased

If required, connect the cable from the weighing system to the connector on the cable from the indicator of weight or place directly on it.

For the operation of the platform, refer to the corresponding manual.

3.2 POWER SUPPLY

The connection to the mains supply depends on the type of power supplied (refer to the table in paragraph 2)

For connection to the mains supply must be complied with safety standard including the use of a “clean” line and free of noise interference from other electronic devices.

If the instrument is powered properly, the light turn on on power-on LED on the front panel.

In addition, if there is an internal rechargeable battery, it will be reacharged.

3.2.1 INTERNAL POWER CONNECTION 110-240 VAC

Plug the cable from the indicator to the network (110-240 Vac).

3.2.2 CONNECTING EXTERNAL POWER SUPPLY 110-240 VAC

Connect the power supply to the mains (110-240 VAC) and the plug to the socket on the indicator.

Example 1

Plug power supply Socket on the indicator

Esempio 2

Plug power supply Socket on the indicator

3.3 BATTERY POWER

The instrument may provide for the use in battery (refer to the table in paragraph 2).

In this case you can use the tool even without mains supply, using this only for the possible charge (in case of internal rechargeable battery).

3.3.1 CHARGE THE INTERNAL BATTERY RECHARGEABLE

To recharge the battery, connect the instrument to the network as described in the previous paragraph.

The battery must be supplied by the manufacturer.

Make the complete recharge of the battery (12 hours) at the first installation of the instrument.
To avoid the deterioration of the rechargeable battery:

- In condition of normal use is recommended to never leave it partially or fully discharged; fully recharge it at least once a week.
- In case of prolonged periods of non-use, must:
  1) fully recharge the battery before shutting down the system;
  2) perform a fully recharge every 3 months.

3.3.2 POWER SUPPLY WITH 4 BATTERIES TYPE "AA"

The indicator can be powered with 4 rechargeable or non-rechargeable batteries to insert in the removable batteries box.
If powered by AA batteries for "rechargeable" batteries (not included), charging the same must be done externally through consideration charger (not supplied).

3.3.3 INSERTING AND REMOVING BATTERY TYPE "AA"

Remove the battery box as shown in the following picture:

Remove any existing batteries and insert 4 new in the spaces according to the polarity indicated above.

Replace the battery box.

3.3.4 REPORTING BATTERY LEVEL

In models with LCD display the charge level of the battery, if present, is indicated in the weighing phase with the corresponding symbol:

- : full charged
- : partially charged
- : low battery: connect the indicator to the mains for charging the internal battery or replace the AA batteries.

In case of low battery, appears for a few second the message "LoW.bAt" on the display (voltage at minimum level)

For correct reporting of the charge may be necessary to set the type of power ( ).

The display also indicates when the battery is being charged:

STEP CHARGING: → → → → …

CHARGING COMPLETE:

During recharging, the instrument can normally be used.
The instrument switches off automatically when the voltage drops belove the minimum level.
It's possible to display the battery level also on the power-on. (see paragraph "POWER AND POWER-ON)
In this case the indicator shows in sequence several messages including:
bt . HHH where HHH is a number from 0 to 100 that indicates the battery level.

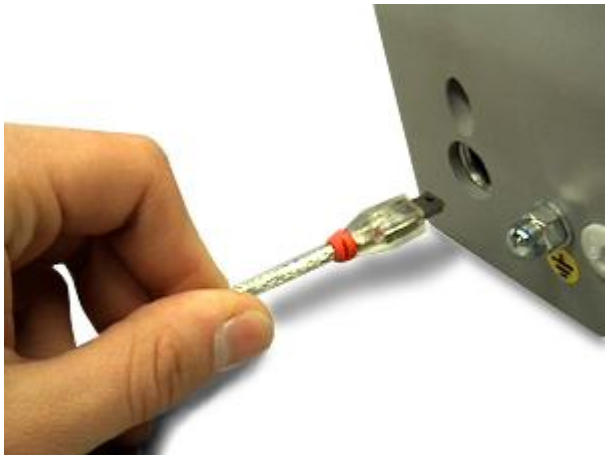
3.3.5 INDICATOR CONNECTED TO THE PRINTER, BATTERY OPERATED

If a system is composed of an indicator connected to a printer, both powered by battery, the printer, usually in STAND-BY, it is powered only when printing; at the end of the printing, the printing automatically returns to STAND-BY. This function is useful in order to reduce the energy absorbed by the battery when the printer is not used.
In this configuration, if you have the need to power the printer to replace the paper and for other operations:

- Press the **ZERO** button for a few seconds.
- The display show the flashing message "onPr i".
- The printer is turned on; perform the desired operation.
- Press any key to exit.

3.4 POWER TO PC USING USB CONNECTOR

If the instrument so provides, it is possible to power the indicator from the USB port connected to PC.
Connect the appropriate USB port on the top of the instrument to the USB port of the PC through a standard PC cable, as shown in the following picture:



4 TURNING ON / OFF THE INSTRUMENT

4.1 TURNING ON

TO TURN ON the instrument press the **C** key until the indicator turns on; then release.

The display shows

HH.YY is the installed software version

The instrument turns on all the display segments and symbols

Then displays

MAH HHH.HHH range of channel 1
(or MASTEr if you select the operating mode "MASTr", or r iPE if you select the operating mode "rEPE")

bt HHH where HHH is a number from 0 to 100 that indicate the battery level in percentage.

After this, it shows the programmed capacity and the minimum division, "h irES" (in case of NOT approved instrument) or "LEGAL" (in case of approved instrument), the g gravity value, and finally it executes a countdown (self-check).

4.2 AUTOZERO AT START-UP

The indicator has an "auto zero at start-up" function: in other words it means that if at start-up a weight within +/- 10% of the capacity is detected, it will be zeroed; if the weight is not within this tolerance, with a non approved instrument the display shows the present weight after a few instants, while with an approved instrument "2Ero" is shown continuously on the display, until the weight does not re-enter within this tolerance; the auto zero function at start-up may be disabled in the set-up environment (only with non approved instrument); see:

SEtuP >> ConF i9 >> PArAM >> Auto-0 (T).

4.3 TURNING OFF

TO TURN OFF the instrument keep the C key pressed until the "- oFF -" message appears on the display; then release the key.

TO RESTART the instrument keep the C key pressed for 8 seconds long: the indicator will turn off, then release the key and the indicator will automatically turn on.

5 FRONT PANEL KEYS AND INDICATORS

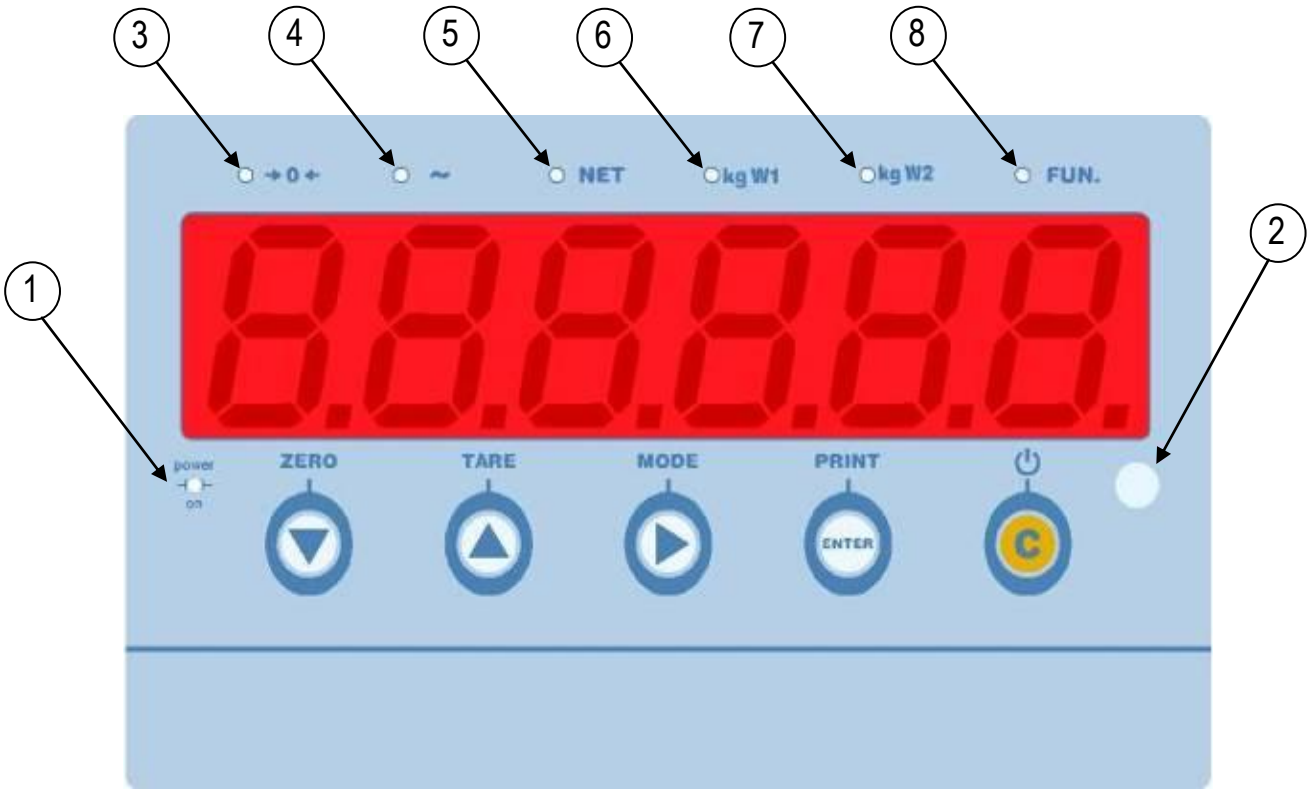
The front panel of the indicator is designed for quick and simple weighing applications. It consists of a display with 6 digits, 25 mm in height, 7 LED indicators (depending on the model), and a 5-key water-proof film keyboard.

LEDS, if present, will be active during weighing to indicate the operative status (see paragraph “WARNING LAMPS”).

If the indicator has an LCD display, while weighing, various multifunction symbols indicating the functioning status will turn on (see section “SYMBOLS ON THE LCD DISPLAY”).

5.1 FRONT PANEL KEYS AND INDICATORS (5 key version)

DFW LCD DISPLAY VERSION



DFW LED DISPLAY VERSION

SCALE KEY	FUNCTION
ZERO	- Zeros the displayed gross weight, if it is within +/- 2% of the total capacity. - Cancels the negative tare value. - When entering numbers it decreases the digit to be modified.
TARE	- If pressed for an instant it carries out the semiautomatic tare. - If pressed at length it allows entering the manual tare from keyboard. - Cancels the negative tare value. - In the numeric input phase it increases the digit to be modified.
MODE / →	- Performs a specific function of the operating mode set in the setup environment. See paragraphs “MODE KEY FUNCTION / →” and “SELECTABLE OPERATING MODES”. - In the numeric input phase it selects the digit to be modified, from left to right. - In totalizator modes, if pressed twice consecutively, it allows to enter in a specific menu to set the parameters of the totalizations.

ENTER / PRINT	- It carries out a specific function of the operating mode set in the set-up environment. - In the numeric input phase, it confirms the entry made. - In the SET-UP, it allows to enter a step or to confirm a parameter within a step. - It transmits the data from the serial port dedicated to the printer.
C / i	- It turns the instrument on and off. - In the numeric input phase, it quickly zeros the present value. - In the SET-UP, it allows to exit a step without confirming the change made; in the 5-key indicator: - Allows viewing the scale's metric information: capacity, division, minimum weigh for each configured range.

5.1.1 NUMERIC INPUT WITH THE 5-KEY KEYPAD

With the 5-key keypad, you can enter a numeric value in the input stage with the following keys:

ZERO decreases the blinking digit.

TARE increases the blinking digit.

MODE select the digit to be modified (blinking); the scrolling of the digits takes place from left to right.

C if pressed for an instant it quickly zeros the present value; if pressed at length it allows to return to weighing without saving the changes made.

ENTER Confirm the setting and leave the input.

5.2 KEY FUNCTION IN THE VERSION 17-KEY

Example of a 17-key keypad, picture 1

Example of a 17-key keypad, picture 2

SCALE KEY	FUNCTION
ZERO	- Zeros the displayed gross weight, if it is within +/- 2% of the total capacity. - Cancels the negative tare value. - When entering numbers it decreases the digit to be modified.
TARE	- If pressed for an instant it carries out the semiautomatic tare. - If pressed at length it allows entering the manual tare from keyboard. - Cancels the negative tare value. - In the numeric input phase it increases the digit to be modified.
MODE / →	- It carries out a specific function of the operating mode set in the set-up environment. See paragraphs "MODE KEY FUNCTION / →" and "SELECTABLE OPERATING MODES". - In the numeric input phase it selects the digit to be modified, from left to right. - In totalizator modes, if pressed twice consecutively, it allows to enter in a specific menu to set the parameters of the totalizations.
ENTER / PRINT	- It carries out a specific function of the operating mode set in the set-up environment. - In the numeric input phase, it confirms the entry made. - In the SET-UP, it allows to enter a step or to confirm a parameter within a step. - It transmits the data from the serial port dedicated to the printer.
C	- It turns the instrument on and off. - In the numeric input phase, it quickly zeros the present value. - In the set-up environment, it allows to exit a step without confirming the change made.
F / Fn	- It allows to select the desired function, see sections "FUNCTION F / FN BUTTON IN COMBINATION WITH NUMERIC KEYS" and "ADDITIONAL FUNCTIONS OF THE 17 KEYS" - If pressed at length it allows to set the display intensity (T),"L . int" parameter).
i / .	- The **"i"** key allows to view the scale's metric information: capacity, division, minimum weigh for each configured range. - In the numeric input phase it allows to enter the decimal point.
NUMERIC KEYBOARD	- In the numeric input phase it allows to enter the desired value.

5.3 MODE KEY FUNCTION / →

Function	key	Effect	Key	Effect	Key
STANDARD	**MODE →**	Switch Kg/Lb			
NET /GROSS	**MODE →**	Switch Net/Gross			
SETPOINT	**ENTER ↵**	Type value	**ENTER ↵**		
IN /OUT	**MODE →**	In weigh	**ENTER ↵**	Out weigh	
ALIBI MEMORY	**MODE →**	Type rewriting ID	**ENTER ↵**	Type ID	**ENTER ↵**
CONTROLLO TOLLERANZA	**MODE →**	Target	**ENTER ↵**	Tol -	>>>>>
	ENTER ↵	Tol +	**ENTER ↵**	Min weight	**ENTER ↵**
PERCENTAGE	**MODE →**	Type % value	**ENTER ↵**	Mode key: a) Switch % / weight. Mode key 2 sec.: b) Sample	
DISPLAY X 10	**MODE →**	Enable/disable x10			
HOLD	**MODE →**	Enable/disable hold			
PEAK	**MODE →**	Enable/disable peak			
TOTALIZER	**MODE →**	Single weighing			
	ENTER ↵	Total			
	ENTER ↵	Grand total			
PIECE COUNTING	**MODE →**	Type PCS NR.	**ENTER ↵**	Mode key: a) Switch PCS/weight. Mode key 2 sec.: b) sample	

5.4 FUNCTION F / FN BUTTON IN COMBINATION WITH NUMERIC KEYS

Key		Key	Effect	Continue with	Key
F / F1	+	0	Lock/unlock		
		1	Recall tare (database)	Type memory (1..30)	ENTER ↵
		2	Lock/unlock tare		
		3	Enter ID	Type memory (1 or 2)	ENTER ↵
		4	Lock/unlock ID		
		5	**Piece counting**	Type piece counting	
		6	**Totalizer**	Visualization of general total	
		7	**Piece counting**	Change sampling time	
		8	Change data/ time		
		9	Insert tare (database)	1. Type memory (1..30)	ENTER ↵
				2. Type value	ENTER ↵

5.5 KEYBOARD LOCK

It is possible to disable the keyboard functions in order to avoid accidental pressing of the keys.

It's possible to lock the keyboard in two different ways:

a) Enabling in SETUP (T) the function of automatic keyboard lock, after 15 seconds of inactivity of the keyboard in weighing, the keyboard is automatically locked (the message "LoC.KEY" is displayed).

During the block you can:
- turn off the instrument by pressing the C button for about 10 seconds and turn on the instrument.
- temporarily unlock the keyboard, press the ZERO key and ENTER / PRINT in succession the message "unL.KEY" is displayed).

If you press a different key, the message"PrESS 2Ero to unLocK" is displayed; when you press the ZERO key, the message "noW PrESS Pr int to unLocK", is displayed.

b) enabling in SETUP (T) the key lock function via an optional input, the keyboard is locked on closing the input and only enabled when it reopened.
In this case, when you enable or disable buttons, no messages appears on the display and by pressing a button the display shows "LocK in" for a while.

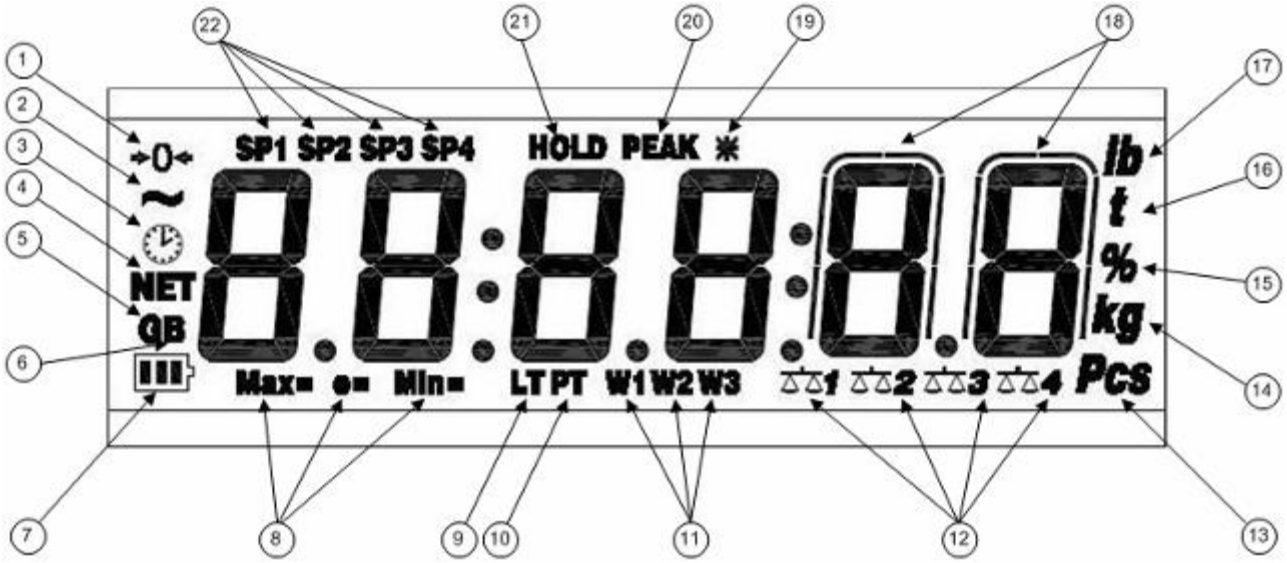
5.6 LED'S SIGNAL

The display can be equipped with a LED indicator that indicates the operating status of the indicator; below the description for each LED, for correspondence refer to the figures of the preceding paragraphs:

Number	Symbol	Description
(1)	POWER ON	Indicate the presence of the mains.
(2)		Sensor for receiving the remote control signal.
(3)	→0←	Indicates that the weight on the weighing system is near zeroin the range of -1/4 ÷ +1/4 of the division.
(4)	~	Indicates that the weight is unstable.
(5)	NET	Indicates that the value displayed is a net weight.
(6)	W1	Indicates the unit of measure in use and that there is in the first weighing range.
(7)	W2	Indicates the unit of measure in use and that there is in the second weighing range.
(8)	FUN	Indicates that a specific function of the indicator is active.

5.7 SYMBOLS ON THE LCD DISPLAY

The LCD display has symbols which show the indicator's functioning status; you will find the description for each symbol below.



NUMBER	SYMBOL	FUNCTION
(1)	**→0←**	The weight detected on the weighing system is near zero, within the interval of –1/4 ÷ +1/4 of the division.
(2)	**~**	The weight is unstable.
(3)		The time is being shown on the display, in the "HH:MM:SS" format.
(4)	**NET**	The displayed weight is a net weight.
(5)	**G**	The displayed value is a gross weight, if the Italian or English language is selected in the print configuration.
(6)	**B**	The displayed value is a gross weight, if the German, French or Spanish language is selected in the print configuration.
(7)		Indicates the battery charge level: see the section "LOW BATTERY WARNING".
(8)	**MAX=** **MIN=** **e=**	When viewing the metric information, it identifies the indicated capacity range. When viewing the metric information, it identifies the indicated minimum weigh range. When viewing the metric information, it identifies the indicated division range.
(9)	**LT**	The locked tare is enabled.

(10)	**PT**	The manual tare is active.
(11)	**W1**	The instrument is in the first weighing range.
	W2	The instrument is in the second weighing range.
	W3	The instrument is in the third weighing range.

5.8 LETTERS AND NUMBERS SHOWN ON THE LCD/LED DISPLAY

LETTERS

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A	b	c	d	E	F	G	h	i	J	K	L	M	n	o	P	q	r	S	t	u	U	W	H	y	Z

NUMBERS

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

MESSAGES EXAMPLE:

SEro	ZERO
tArE	TARE
Err.399	ERR.39
tot	TOT
WE iGht	WEIGHT
d iAG	DIAG

5.9 INTENSITY BACKLIGHT / LED

The brightness of the backlight (LCD display) or LED (red LED display) is customizable from setup. In the "Crane" series, a long pressure of the Zero button will launch a menu in which intensity can be set. In other indicators, except the wheel weighing ones, a long pressure of the F button will launch that menu.

The backlight in the case of the LCD display, it is normally active when operating the scale, but if necessary can be turned on or off permanently.

In the DFWLID series' indicators you can customize the color of the backlight of seven different shades.
In addition, in the operating of control tolerance, the backlight will automatically change depending on the weight and color set in SETUP, the standard operation is described in the following table and in paragraph "CONTROL CONTROL OF TOLERANCE + / - (ChECh)":

BACKLIGHT COLOR	Description
	The net weight is greater or equal to the activation threshold, but below the minimum threshold.
	The net weight is greater or equal to the minimum threshold, but below the maximum threshold and is in motion.
	The net weight is greater or equal to the minimum threshold, but below the maximum threshold and is stable
	The net weight is greater or equal to the maximum threshold.

6 BASIC FUNCTIONS

6.1 ZERO SCALE

By pressing the ZERO key, it is possible to zero a gross weight value which is within +/- 2% of the capacity; after the zeroing, the display shows 0 weight and the relative pilot lights are turned on.

6.2 TARE OPERATIONS

6.2.1 SEMI-AUTOMATIC TARE

By pressing the **TARE** key any weight value present on the display is tared: the display shows "tAr-E" for an instant and then 0 (net weight); the pilot lights turn on.
The semiautomatic tare will be acquire only if the weight is AT LEAST A DIVISION, STABLE (instability **~** led off) and VALID (in other words, the OVERLOAD condition must not be created).

6.2.2 ENTERING THE MANUAL TARE FROM KEYBOARD

With the 5-key indicator:
Press TARE for a few seconds: the display shows "- tn -" and then "000000". Enter the desired value as described in "NUMERIC INPUT WITH THE 5-KEY KEYPAD"
Confirm with ENTER / PRINT, the value will be subtracted from the weight present on the plate and pilot lights will turn on.

Con indicatore a 17 tasti

1. Type in the desired value through the numeric keys (depending on the model, press "I" or "."to enter the decimal point
   In the MASTER press the numeric 0 key and digit the desired value through the numeric keys.
2. confirm with TARE key.

If the entered value is not a multiple of the scale's minimum division, it will be rounded off.

6.2.3 CANCELLING A TARE

One can manually cancel the tare value in different ways:
- unload the scale and press the **TARE** (only if the net weight is equal to zero and not negative) or **ZERO** key.
- carry out the tares in subtraction, partially unloading the scale and, and press **TARE** to zero the display.
- press C without unloading the scale.
- enter a manual tare equal to 0.
- automatically cancel the tare value; see the following section.

6.2.4 AUTOMATIC/LOCKED/UNLOCKED/DISABLED TARE SELECTION

By pressing the keys **F** and **2** in the indicator to 17 keys or by pressing the MODE key twice in succession, you can quickly select the mode of operation of the tare:

LoCK — LOCKED TARE: when a tare value has been acquired or entered (manually or from memory), after unloading the scale, the display shows the tare value with a negative sign.
In case of MANUAL TARE or FROM DATABASE, the net weight before unloading the scale must be greater than 2 divisions and stable.

unLoCK — UNLOCKED TARE: the tare weight is automatically cleared each time the scale is unloaded

Auto — AUTOMATIC TARE: placing a weight on the unloaded scale, it is automatically tare, only if there isn't a tare and there is a stable gross weight of at least 5d.

d iSAbLE — TARE DISABLED: all tare operations are disabled.

The indicator stores the last selection made even after turning off.

6.3 LIMITATION OF THE TARE FUNCTIONS

If the weighing system is used for direct sales to the public, the tare functions must be limited through a setting in SETUP depending on the application:

a) Using a scale below a capacity of 100 kg and without repeater client side, all tare functions will be disabled
b) In all other case, above balance with capacity above 100 kg or repeater client side.
   1) The SEMIAUTOMATIC TARE value can't be changed with a manual tare or from database, then the manual tare or from database can be entered or modified only with an UNLOADED scale and after the tare weight setting.
   2) It's possible to cancel the tare value only with an UNLOADED scale, by pressing the ZERO key key or by entering a manual tare equal to zero.

6.4 AUTO POWER OFF FUNCTION

It is possible to enable in SETUP (**T**) the auto power off function indicator: the auto power off takes place when, with unloaded scale, the weight has not been moved or a key has not been pressed for the time set (from 1 to 255 minutes) the display shows the "-oFF-" blinking message and an acoustic signal is emitted; after this the indicator turns off.

6.5 AUTOMATIC STAND-BY FUNCTION

It is possible to enable in SETUP (**T**) the automatic stand-by function of the indicator.
The instrument is normally in stand-by (the display is turned off except for the point): at the pressure of any button for an instant appears the message "-on-", then the weight on the scale is displayed for 30 seconds; after this time the instrument will return to stand-by.

6.6 DIVISION OF FLOW IN MOST FIELDS (OPERATION IN MULTIPLE FIELDS)

The weighing system may provide for the division of the flow into multiple fields (up to three), thus improving the division of the first and second field.

For example, a platform of 15 kg could be divided into three fields as follows:

Range	Flow	Division
1	from 0 to 3 kg	1g
2	from 3 to 6 kg	2g
3	from 6 to 15 kg	5g

The division is shown by the relative light or symbol on the display, which identifies the field in which you are working; going from the first to the second field and from the second to the third field, its relative division is automatically activate. At this point, the division of the first field resets, **going from zero gross scale.**

6.7 REMOTE CONTROL (OPTIONAL)

If the indicator is shipped with remote control, is possible to use the functionality of the instrument keys. There are two types of remote control: 19-key infrared remote control or radio remote control with 6 buttons.
The type of remote control that must be used and the mode of operation must be selected in setup environment (**T**).

6.7.1 NINETEEN-KEY IR REMOTE CONTROL

The remote control is designed for indoor use / not in the light of the sun

Through the remote control with 19-keys is possible to remotely the functionality of all the keys, including numeric, both in SHORT pressure, both in LONG pressure and correspond to the following key keys indicator:

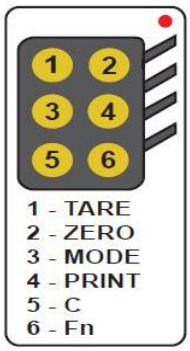
REMOTE KEY	INDICATOR KEY
ZERO	ZERO
TARE	TARE
MODE	MODE/→
PRINT	ENTER/PRINT
C	C
NUMERIC KEYS	Numeric keys
F1	F/Fn
F2	Not managed
F3	Not managed

By pressing at length the C key, it's possible to put the instrument in stand-by; by pressing C on the keyboard or any key on the remote control one returns to the weighing mode.

6.7.2 SIX-KEY RD REMOTE CONTROL

Through the remote control with 6 buttons is possible to remotely functionality of the ZERO, TARE, MODE, ENTER / PRINT, C / DEL, and F / Fn, keys or just the TARE key, depending on the operating mode set (T).

The remote control keys repeat the keys' functions (both the ones obtained with a SHORT pressing as well as those with a LONG pressing) and they correspond to the following indicator keys:



REMOTE KEY	"TARA" Mode	Complete mode
1 - TARE	TARE	TARE
2 - ZERO	TARE	ZERO
3 - MODE	TARE	MODE
4 - PRINT	TARE	ENTER/PRINT
5 - C	TARE	C
6 - Fn	TARE	F/Fn

In the "complete" mode, by holding down the C key, you can put the instrument in stand-by mode; by pressing C on the keyboard or any button on the remote control, you will returns to weighing mode.

While setting up the remote control (T) is also possible select whether:

a) Use multiple remotes with a single indicator, without associating to it, therefore without limit the number of remote controls used.

b) Use different indicators in the same area, matching each remote control to the desired indicator, in order to execute the function only on it and thus avoid that the function is repeated on all indicators in use.
Enabling this feature i twill be possible to combine up to 3 different remote controls (eg. for 3 different operators) for each indicator.

It's possible to link a new remote control with TARE key and ZERO key pressed at length (3 seconds). When the instrument displays "Aut.rdr" by pressing ENTER key of the keyboard the new remote control is linked.
With C key of the keyboard, if the serial number exists, the remote control is removed.

6.8 DATE/TIME ADJUSTMENT (OPTIONAL OR INCLUDED DEPENDING ON THE MODEL)

The indicator can be fitted with the date / time, which is useful when printing and for the SCREEN SAVER function (see next paragraph), at the turn on the message "CLoCK" is shown.

With the 17-key indicator, it is possible to program the date and time during the weighing, pressing in sequence the F-keys and 8.
It will be asked to enter, in order, the

- DAY ("dAY")
- MONTH ("Month")
- YEAR ("YEAr")
- HOURS ("hour")
- MINUTES ("MinutE")

The introduction of each parameter is performed using the numeric keypad and must be confirmed with ENTER/PRINT.
With the 5-key indicator, setting the date / time is possible only in the SETUP environment (T).

6.9 "SCREEN SAVER" FUNCTION (OPTIONAL OR INCLUDED DEPENDING ON THE MODEL)

If the indicator has the date / time, it is possible to enable the "Screen Saver" function in SETUP **(T)**:

after a programmable time (from 1 to 255 minutes) with the scale unloaded, the time is shown on the display, in the "HH:MM:SS" format and the clock symbol ( ) . is enabled. As soon as a weight variation is

detected, or a key is pressed, the indicator returns to view the current weight.

6.10 CONDITIONS FOR PERFORMING THE WEIGH AND PRINTS

If a printer is connected, it is possible to print the programmed weight data, for example:

- 4 heading lines of 24 characters
- GROSS weight
- TARE weight
- NET weight
- ticket number
- date and time (optional or included depending on the model)
- a CODE 39 bar code (both with the LP542PLUS labeller as well as the TPR thermal printer).

Besides the generic printing described above, each single functioning mode will have some specific printouts, which are described in the operating mode.

It is also possible to send weigh data to the PC, with standard or extended string, via the printer port (selecting ALL.Std/ALL.EHt o PrPC.St/PrPC.EH in the "Pr.ModE" parameter).

6.10.1 EXECUTING PRINTOUTS WITH NON APPROVED SCALES.

Normally, with non approved scales, the conditions of printing are the following:

- the weight must be stable;
- the gross weight must be >= 0;
- the printout is always active.

In the totalizer mode and input / output instead, in order to print the totalised weight the following must take place:

- the weight must be stable;
- the net weight must be >= of a division with normal or fast totalisation;
- the net weight must be >= of 10 divisions with automatic totalisation;
- weighing needs to be reactivated, as describe in the section "REENABLING OF PRINTS".

6.10.2 LEGAL FOR TRADE SCALES PRINTING.

In order to be able to print with a legal for trade scale the following conditions must exist:

- the weight must be stable;
- the net weight must be >= the minimum weight (minimum of 20 divisions);
- weighing needs to be reactivated, as describe in the section "REENABLING OF PRINTS".

6.10.3 NOTES ON THE PRINTS

- The printing is confirmed by the indication on the display of the "Pr int" message or "-tot-"in case of totalisation.
- If the printout is not reenabled the display shows the "no.0.unS" message
- With the weight unstable the display shows the "unStAb" message.
- If the gross or net weight is less than the requested minimum weight, by pressing the ENTER/PRINT key, the display shows the "LoW"error message.
- If the indicator is in under load or over load status, by pressing the ENTER/PRINT key, the display shows the "un.oUEr"error message.

To configure the printouts, go to the section "PROGRAMMING THE PRINTOUTS" in the technical manual

(T).

6.11 REENABLING THE PRINTOUTS AND THE INDICATOR FUNCTIONS

While using the indicator, it is possible to incur into the "no.0.uns"error shown on the display along with an acoustic signal; this means that the printing or the function which one wants to carry out must be reenabled (in order to avoid unwanted executions).
This function is very useful for avoiding unwanted weight or build-up.
It is possible to set the reenabling in different ways (T):"passage by zero of the net weight", "weight instability" or "always".

6.12 DISPLAY OF METRIC DATA (info)

The indicator is fitted with a function named " inFo", thanks to which it is possible to view the configuration metric data:

- **With the 5-key indicator:**
  - keep the **C** key pressed until the display shows " inFo", and release, or:
  - press the keys **MODE + C** keys in sequence.

- **With the 17-key indicator:**
  - press the key **i** once, or:
  - press the keys **MODE + C** keys in sequence, or:
  - keep the **C** key pressed until the display shows " inFo", and release.

- The capacity value of the first range will appear.
- Press the ZERO key to scroll the following data, in this order:
  Capacity 1° range ⇨ Minimum weigh 1° range ⇨ Division 1° range ⇨
  Capacity 2° range ⇨ Minimum weigh 2° range ⇨ Division 2° range ⇨
  Capacity 3° range ⇨ Minimum weigh 3° range ⇨ Division 3° range ⇨
  Capacity 1° range ⇨……
- Press the TARE key to scroll backwards the metric data.
- Press the C key to return to weighing.

NOTES:
- The minimum weigh corresponds to 20 net weight divisions.
- The data of the second and third range appear only if actually configured.

7 ADDITIONAL FUNCTIONS OF THE 17-KEY INDICATOR

7.1 STORED TARE MEMORY VALUES

It's possible to store up to **30 tare memory values,** identified by the location numbers 1 to 30, which the user can recall when needed.

To insert or modify a tare value:

- press the keys "**F**"**+** "**9**" in sequence - the display will indicate "t nn". in which nn is the storage number to be entered. For example, by pressing "**01**" and then ENTER/PRINT, the display will indicate "t00000" or any value that already exists in the tare memory location "01."
- Insert the tare value with the numeric keyboard (with the **C** key one quickly zeros the entered value) and press **ENTER/PRINT**.
- Repeat the sequence for the following memory positions.

The value must be entered as a multiple of the scale's minimum division.

RECALLING STORED TARE VALUES

To recall a stored value:

- Press the keys "**F**" **+** "**1**" in sequence. The display will indicate "t nn" in which nn is the storage number to be entered.
- Press the keys corresponding to the desired tare value location in memory (01-30) and then ENTER/PRINT, the tare will be enabled.

7.2 ENTERING THE IDENTIFICATION CODE

It is possible to insert 2 numerical codes of up to 10 digits in length (maximum) to use as a reference during printing:

- Press the "**F**"+ "**3**" keys in sequence. The display will indicate " id n", in which n identifies the code number which one wants to enter.
- Press 1 or 2: the display will show 00000 or the last entered value.
- Enter the code through the numeric keyboard and confirm with ENTER/PRINT or press C to exit without saving the modifications. During the entry, just the last 6 digits entered will be displayed; in any case it is possible to scroll all the digits using the MODE key.
- After its entry, the code will automatically be printed with its abbreviation (ID1 or ID2) in each printing that will be made. The non significant zeros are not printed. It is also possible to set the automatic cancellation of the code after the printing is made.

IN ANY CASE, the stored codes are cancelled when the instrument is turned off.

NOTES:

- The values between 0'000'000'001 and 9'999'999'999 are valid; by entering 0'000'000'000 the code is

cancelled.

- In the TOTALIZER functioning mode, the codes will be printed only in the printing of the total.

7.2.1 LOCKED / UNLOCKED CODE SELECTION

Normally the code is LOCKED, in other words once it is set it remains stored (and therefore printed) until it is cancelled or until the instrument is turned off. In any case it is possible to make it so the code is cancelled as soon as it is printed (UNLOCKED CODE):

- Press the keys “**F**” + “**4**” in sequence; the display indicates "Mod n".
- Press "1"; the display indicates " id1 u ", this means that the CODE 1 will be UNLOCKED.
- Press the same keys again: the display indicates " id1 L", this means that now the CODE 1 will be LOCKED.
- Repeat the same operations for CODE 2.

7.3 REPETITION OF THE LAST PRINTOUT MADE

Press in sequence the **F** and **PRINT** keys: the last printout made by the indicator will be repeated.

NOTES:

- By turning off the instrument, the information relative to the last printout made, will be lost; therefore this function is not enabled until the first printout is made.
- This function is available only in the DFW type indicators.

8 SELECTABLE OPERATING MODES

PREMISE: For the indicator functions in the “Weight repeater” , refer to the section “HOW TO USE INDICATOR AS WEIGHT REPEATER”.

In addition to the standard weighing mode with TARE subtraction and transmission of data, the indicator can carry out one of the following functions:

- UNIT OF MEASURE/POUNDS CONVERSION
- NET/GROSS SWITCH
- SET POINT ON THE GROSS WEIGHT
- SET POINT ON THE NET WEIGHT
- IN/OUT, SINGLE - MULTISCALE REPEATER
- APPROVED TRANSMISSION OF WEIGHT TO PC WITH ALIBI MEMORY
- +/- TOLERANCE CHECK
- SAMPLE WEIGHT PERCENTAGE
- SINGLE SCALE REPEATER
- DISPLAY WITH SENSITIVITY X 10
- FREEZING OF THE WEIGHT ON THE DISPLAY
- PEAK DETECTOR

- HORIZONTAL TOTALIZER
- VERTICAL TOTALIZER
- PIECE COUNTING.

The operating mode is selectable in the Setup environment (T).

8.1 UNIT OF MEASURE/POUNDS CONVERSION (Std)

By pressing the MODE key the weight conversion between the scale unit of measure and lb is made and vice versa.

NOTES:

- The conversion takes place for any unit of measure set during the calibration.
- With APPROVED instrument the weight in pounds is displayed for 5 seconds, after which the display goes to the scale unit of measure. During the viewing in pounds it is not possible to print the weight (when pressing ENTER/PRINT the message "ConU." is shown and an acoustic signal is emitted).

8.2 NET/GROSS SWITCH (ntGS)

If a tare is set by pressing the MODE key, for about 3 second interval, the gross weight is displayed.
While the gross weight is being viewed it is not possible to print.

8.3 SET POINT ON THE GROSS OR ON THE NET WEIGHT (StPG / StPn)

By selecting this mode, the instrument can handle up 4 to 4 relay outputs according to the weight set for the activation / deactivation of external device (for example, to manage a dosage)

8.3.1 OPERATION

Introduce for each relay outputs a ENABLING SET POINT, that, when the weight is greater or equal to it, activates the concerned relay and when the weight is less, turn off the concerned relay.
If necessary, it is possible to at a value lower than that of activation, enabling the HYSTERESIS function in the SETUP.
In this case it will be requred during the insertion phase, also the DISABLING SET POINT.

8.3.2 INSERTING SETPOINT

Holding down the ENTER/PRINT key for about 3 seconds, introduce the values of DISABLING and ENABLING set point, only for the configured relays output :

- The display shows "Sb 1.oF" (DISABLING relay 1 SET POINT): press ENTER/PRINT to enter the step.
- Enter the value in the numeric keypad, or as described in "NUMERIC INPUT WITH THE 5-KEY KEYPAD" and confirm with ENTER/PRINT
- The display shows "Sb 1.on" (ENABLING relay 1 SET POINT): enter the weight value like in the preceding SET POINT and confirm with ENTER/PRINT.
- With the C key, one quickly zeros the set point value.
- In the same way go ahead with the "Sb2.oF", "Sb2.on", "Sb3.oF", "Sb3.on", "Sb4.oF", "Sb4.on" (if

present).

- Once finished the programming of the set points, one should exit with the C key to return to weighing.

8.4 INPUT/OUTPUT (inout)

Simple display functioning mode with in / out weighing function: the indicator acquires two weight values through the confirmation of the operator and calculates the difference, automatically printing the data (if the presence of a printer has been configured).
The tare operations in this mode of operation are DISABLED.

8.4.1 PROCEDURE

With the MODE key of the 5-key indicator (or keys "**F**"+ "**1**" of the 17-key indicator), one acquires the first weight, on the display is shown "-- 1---" accompanied by a prolonged beep.
By pressing again the MODE of the 5-key indicator (or keys "**F**"+ "**2**" of the 17-key indicator), one acquires the second weight, and on the display is shown "--2---" accompanied by a prolonged beep.
When the second weight is acquired, the data printout is commanded.

For the conditions of implementation of the weighing, refer to the section entitled "CONDITIONS FOR PERFORMING THE WEIGH AND PRINTS".

8.4.2 CANCELLATION WEIGH

It is possible to stop the weighing cycle by pressing the ENTER / PRINT key (in the 5-key indicator) or C (in the 17-key indicator) after the acquisition of the first weight:

- The display shows the message "CLEArP" accompanied by an audible signal.
- press ENTER/PRINT to confirm the cancellation of the first weight gained or another key to not confirm.

8.5 APPROVED TRANSMISSION OF WEIGHT TO PC WITH ALIBI MEMORY (AL ib 1)

The alibi memory allows to transmit the weight values in the computer for a further processing and / or integration of data, and store them to then be recalled from the "PID" or "PIDD" PC serial command(see "FORMAT OF THE SERIAL COMMANDS" paragraph on technical manual) or directly on the display of the indicator to be checked.

The data stored at each weigh / weight transmission is:

- Gross weight
- Tare
- Unit of measure
- Number of scale (always 1)
- Alibi rewriting ID

8.5.1 PROCESS FOR STORAGE

The storage of a weigh takes:

- following the reception of a command via serial.

- After the button ENTER/PRINT is pressed: the indicator transmits on the PC serial the gross weight, the tare, an ID code that uniquely identifies the weight; in addition the display show the message " tr . id" for about 2 seconds.

The storage when pressing ENTER/PRINT follows the same conditions for the implementation of weighing and printing, refer to paragraph “CONDITIONS FOR PERFORMING THE WEIGH AND PRINTS”.
The storage of the weigh through the PID serial command is always possible for all weights from 0 to full scale, both with an approved instrument, both with an unapproved intrument; follows, therefore, only the reenabling condition, refer to section “REENABLING THE PRINTOUTS”.

In case that these conditions are not observed:
- In response to the PID serial command it has “NO” instead of the ID.
- It has not no transmission in case of ENTER/PRINT key being pressed.

8.5.2 READING OF THE WEIGHS CARRIED OUT

In order to read the information relative to the weighs carried out:
- Press the **MODE** key.
- The message "rEW . id" appears; now one should enter the rewriting number (from 00000 to 00255) and press ENTER/PRINT.
- The message " id" appears; now one should enter the weigh number (from 000000 to 131072) and press ENTER/PRINT.
- Now it is possible to view on the display the weigh information in sequence, and scroll through it with the ZERO key (ahead) or the TARE key (backwards):
  - "ch . h", in which *H* is the scale number (always 1).
  - " un yy" in which yy is the unit of measure (kg, g, t o lb).
  - gross weight (for about a second the message "Gross" appears and then the gross weight value).
  - Tare weight (for about a second the message "tArE", appears or "tArEPt" if it is a manual tare, then the tare value appears).
- Press C to return to weighing.

If the alibi memory is empty, when the MODE key is pressed the message “EMPtY”appears for about a second, an error acoustic signal is enabled and one returns to weighing.

If the entered ID is not valid, in other words, if there is no stored weigh relative to the entered ID, the message " no id" appears and an error acoustic signal is enabled and one returns to weighing.

8.5.3 CANCELLATION OF THE ALIBI MEMORY

It is possible to delete all the weighs made, initializing the alibi memory; this operation is only possible in the SETUP environment or via serial command (**T**), with non approved instrument / sealed.

8.6 +/- TOLERANCE CHECK (ChECh)

In this operating mode the instrument is able to perform a control tolerance and indicate the tolerance level reached at the display and, where provided, on a light or external device, through the use of four optional outputs.

The check is performed on the basis of a value of TARGET WEIGHT, LOWER TOLERANCE value, a value of HIGH TOLERANCE and a threshold ACTIVATION, freely programmed.
In the setup you can select whether to control the gross weight or net weight.

ENTERING THE ACTIVATION THRESHOLD, TARGET AND THE TOLERANCES

- Press the **MODE** key; the instrument first shows "tArGEt" then "000000"or the target previously used. With the keyboard enter the desired target; with **C** one quickly zeros the entered value; by pressing **C** again one cancels the entry and returns to weighing.
- Confirm with **ENTER/PRINT**: the display shows first "t.Min" then "000000"or the T1 lower tolerance previously used. With the keyboard enter the desired lower tolerance; with **C** one quickly zeros the entered value; by pressing **C** again one cancels the entry and returns to weighing.
- Confirm with **ENTER/PRINT**: the display shows first "t.MAH" then "000000"or the T1 upper tolerance previously used. With the keyboard enter the desired upper tolerance; with **C** one quickly zeros the entered value; by pressing **C** again one cancels the entry and returns to weighing.
- Confirm with **ENTER/PRINT**: the display shows first "trESh"and then "000000"or the enabling threshold used previously. Through the keyboard enter the desired enabling threshold; by pressing **C** one quickly clears the entered value, while by pressing again **C** one cancels the entry and returns to the weighing mode.
- Confirm with **ENTER/PRINT**: the display shows "StorE.",for an instant; after this it returns to weighing.
- If the entered value is wrong (i.e. tolerance value greater than the target or target greater than the scale capacity) the indicator emits a prolonged sound and zeros the entered value; furthermore, if a value different than the scale division is entered, it is rounded off to the nearest minimum division multiple.

8.6.1 PROCEDURE AND STATEMENT OF TOLERANCE

After introducing the activation threshold, target and tolerance values, put the weight on the scale: if the weight is below the set threshold , there is no check; if the weight reaches or exceeds the threshold, the control on tolerances is activated.
The display shows, at regular intervals, the level of tolerance through messages on the display and activates the outputs of tolerance .

In the **DFWLID/DFWLIDCC** also the backlights changes depending on tolerance level and you have the possibility to choose the color for each level.

Weight level on scale	Display message alternating to weight (if enabled in setup)	Active outputs	STANDARD BACKLIGHT COLOR DFWLID/ DFWLIDCC
WEIGHT BELOW THE CHECK TRESHOLD			
WEIGHT ≤ THRESH	None	None	
WEIGHT OVER THE CHECK TRESHOLD BUT HIGHER THAN TRESHOLD			
THRESH < WEIGHT< TARGET –t.Min	UNDER	4, 1	
WEIGHT OK – ON MOVE			
TARGET – t.Min ≤ WEIGHT	OK H	4, 2	
WEIGHT = TARGET	-ok-	4, 2	
WEIGHT ≤ TARGET + t.MAX	OK H	4, 2	
WEIGHT OK STABLE			
TARGET – t.Min ≤ WEIGHT	OK H	4, 2	
WEIGHT = TARGET	-ok-	4, 2	
WEIGHT ≤ TARGET + t.MAX	OK H	4, 2	
WEIGHT HIGHER			
WEIGHT > TARGET + t.MAX	OVER	4, 3	

X is the difference (1 figure) between the weight on the scale and the target.

8.6.2 ACOUSTIC SIGNAL

It is possible to enable an acoustic signal (beep) for the control of tolerance in two different mode.
Pressing "**F**" and "**6**" in sequence (in the 17-key indicators) or pressing long the "**MODE**" key (in the 5-key indicators) it is possible to choose one of the following ways:

- **b.SEnS :** that is emitted when the weight is greater than the enabling threshold; the frequency with which the acoustic signal is emitted increases when the weight approaches the target and vice versa. When the weight reaches the target, the indicator emits a different acoustic signal.
- **b.out :** that is emitted when the weight is less than Target-t.Min or greater than Target+t.MAX.
- NutE : acoustic signal disable

For each selection, the display shows the enabled mode and "StorE" indicating the save.

8.6.3 PRINT

If it has configured a printer and it has set a target greater than 0, at the execution of the weigh through the ENTER / PRINT key, it will run a print showing also the target, tolerances and the outcome of control.

8.7 SAMPLE WEIGHT PERCENTAGE (PErC)

In this operating mode, the instrument shows on the display the net weight expressed as a percentage, comparing it with a reference weight which has been previously linked to a percentage.

8.7.1 SAMPLING PROCEDURE

With the 5-key indicator

1) Place the empty container on the scale and press **TARE** to tare it.

2) Check that the zero is on the display and press **MODE**.

3) The display suggests a percentage; the possible options are: 100.0, 200.0, 5.0, 10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 75.0.

4) Press **ZERO** or **TARE** several times to reach the desired sample size.

5) Put the reference weight on the scale and press **ENTER/PRINT** to confirm or **C** to cancel the operation and return to weighing.

6) Press **ENTER/PRINT**; the display will show "SAMPL". After a few instants the display will show the selected percentage put on the platform.

7) Add the quantity to be measured on the scale and the value will appear on the display.

8) By pressing the **MODE** key one switches from the display of the percentage to the display of the net weight and vice versa.

9) **To carry out a new sampling,** press at length the **MODE** key and repeat the operations as describe in point **3)**.

REFERENCE WITH FREE PERCENTAGE

With the 17-key indicator it is possible to enter by keyboard a different percentage from the ones proposed by the **MODE** key:

- With the scale at zero, after having stored a tare, press "**F**"+ "**5**".
- the display will indicate "n 5" and then "0" or a quantity already stored.
- Modify and/or enter the quantity using the numeric keys.
- Follow the operations describe in point **5)** in the **PROCEDURE with the 5-key indicator.**

8.7.2 ERROR "Er .Not" DUE TO WEIGHT INSTABILITY DURING THE SAMPLING AND MINIMUM WEIGHT OF THE SAMPLE

It may happen that during the sampling phase the weight is unstable; the "Er .Not"is shown remaining for about three seconds. One should therefore repeat the sampling operation.

For the execution of sampling is necessary to use a net weight greater than 0.

8.7.3 SETTING THE SAMPLING INTERVAL

With the indicator with the 17-key keyboard, pressing keys in sequence **F** and **7**, it is possible to change the sampling time during the weighing:

- Set the desired time, in seconds, with one decimal.
- Confirm with **ENTER/PRINT**.

The value entered is stored in Setup and then remains valid even after power off. The more time is set, the

greater will the sampling be accurate.

With the 5-key indicator, setting the sampling time is only possible in the setup environment (T).

8.7.4 PRINTING

If the presence of a printer has been configured and a sampling was performed, the execution of the weight using the key ENTER/PRINT, will run a print showing also the percentage quantity present on the scale, in addition to the programmed data.

8.8 DISPLAY WITH SENSITIVITY X 10 (U .55)(TO BE USED IN TESTING DURING THE CALIBRATION)

By pressing the **MODE** key one switches from the weight display with normal sensitivity to a sensitivity ten times greater; in fact, one will note that the last digit on the right of the display will have a sensitivity equal to the scale's division divided by 10.

The printout can only be done when the indicator has the standard sensitivity.

In case the instrument is APPROVED, when "**MODE**" is pressed, the sensitivity times 10 is displayed for five seconds after which the instrument returns to standard weight displaying.

In case the instrument is APPROVED for direct sale to the public, that view is only possible with capacities greater than or equal to 100 kg (220 lb).

8.9 HOLD: FREEZING THE WEIGHT ON THE DISPLAY (hLd)

By pressing **MODE**, the value of the weight is held on the display, and the display shows "hoLd", alternately with the held weight value (every 5 sec). To release the weight value on the display, press **MODE** key again (the "norMAL" message is displayed).

By pressing **MODE** at length it is possible to enter in a menu for the selection of the type of functioning: "StAt .c"(static functioning, previously described), "hoLd 0"…"hoLd 5"(dynamic functioning, for weighing of moving objects, for example animal weighing; the higher the numeric parameter, greater is the intervention of the HOLD function).

Press **ZERO** or **TARE** key to change the parameter and **ENTER/PRINT** to confirm. Then press **MODE** to enable the selected functioning; by pressing again the **MODE** key the function is disabled.

8.10 WEIGHT PEAKS DETECTION (PEAK)

It is possible to use the instrument to store the maximum weight value measured during the weigh (PEAK), useful to measure, for example, the breaking load of the materials.

By pressing the **MODE** key, the peak mode is enabled; on the LED display the maximum weight reached will be displayed, alternated with the message "PEAK", every 5 sec.

The test terminates by pressing the **MODE** key again or when the weight peak surpasses the maximum capacity of the instrument (for an instant "PEAK.oF"is displayed and the indicator returns to standard operation).

8.10.1 SETTING SAMPLING TIME

It is possible to set the minimum time period of the peak impulse beyond which the measuring is accepted. This time is set by keeping "**ENTER/PRINT**" pressed for a few seconds when the indicator is not in the peak mode: the message –tP– appears on the display followed by a number which corresponds to the minimum time length of the impulse expressed in hundredths of seconds.

By pressing "**ZERO**" or "**TARE**" the following settable values are proposed: 1, 2, 3, 4, 5, 10, 20, 50, 100 and 127; press "**ENTER/PRINT**" to confirm the desired value, (the indicator will return to weighing). The default value is 2.

TABLE OF OPERATING PARAMETERS IN PEAK MODE

LENGTH	SAMPLINGS PER SECOND	ACQUIRED VALUES	MEDIATED VALUES
1	400	1	1
2	200	1	1
3	100	1	1
4	100	4	2
5	50	4	2
10	25	4	2
20	12	4	2
50	6	4	2
100	6	8	2
127	6	12	2

When enabling the PEAK mode, it's possible that the displayed weight isn't really the one on the scale. Greater the number of samplings per second, and greater is the weight that can be shown on the display.
E.g. if 0.000Kg is on the scale and the sampling time is equal to 1, when the PEAK mode is enabled, 0.034Kg could be displayed.

8.11 HORIZONTAL TOTALIZER (Sum of lots) (tot o)

In this mode it is possible to score a weight manually or automatically depending on the setting in the setup.

8.11.1 TOTALISATION OPERATIONS

In order to carry out the totalisation it is necessary:
- to load the weight on the scale
- press the MODE key (if the automatic totalisation has not been set)

The weight is accumulated in two total levels (a partial total and a general total). The totals and the number of weighs are zeroed when the instrument is turned off; it's possible to store permanently these data if the instrument is fitted with the date/time board option.

The totalisation follows the same conditions for the execution of weighing and printing, refer to the section "CONDITIONS FOR PERFORMING THE WEIGH AND PRINTS".

Also, if you press the MODE key with the following condition:
- unstable weight
- gross or net weight less than the minimum weight
- indicator in a state of overload or underload
- the totalisation remains pending: the blinking "totAL" message is displayed and if the weight reaches the stability within 10 seconds, the totalisation is executed, otherwise the totalisation is aborted and the display shows the "Error"message and
- "unStAb" in case of weight is unstable
- "LoW" the gross or net weight is less than the minimum weight
- "un.oUEr" if the indicator is in a state of overload or underload

8.11.2 DISPLAYIN PARTIAL TOTAL

With the 5-key indicator it is possible to view the weighs made and the PARTIAL NET TOTAL accumulated up to that point (Subtotal) in 2 ways:

1) pressing long the MODE key
2) pressing the MODE key **without having reactivated the totalisation**.

The display shows the number of weighing, the message "totAL" and then the total weight; if the accumulated digit is greater than 5 digits viewing takes place in two phases

With the 17-key indicator, during the weighing, it is possible to view at any time the number of weighs and the accumulated net weight in the totals:

- By pressing in sequence the **F** and **7** keys, the following will be displayed in this sequence:
  - **"n H",** in which x is the number of weighs made
  - **"totAL",** followed by the accumulated **PARTIAL NET TOTAL**.
- By pressing in sequence the **F** and **6** keys, the following will be displayed in sequence:
  - **"n H ",** in which x is the number of weighs made
  - **"totAL",** followed by the accumulated **GENERAL NET TOTAL**.

8.11.3 TOTALISATION WITH PRINTING

If it has configured the presence of a printer at the execution of the weigh will be run a print showing also the number of weighing, in addition to the data programmed in SETUP .

8.11.4 PRINTING AND ZEROING OF THE TOTALS

The instrument has two different total levels, a partial total and a general total, which increase upon each totalisation; these may be printed and zeroed independently from each other.

To print and zero the PARTIAL TOTAL one should press for an instant the **ENTER/PRINT** key; depending on the type of totalisation, various messages will be displayed:

- With **normal totalisation** the number of weighs and the accumulated total will be displayed.
- With **fast or automatic totalisation** the message "totAL"will be displayed.

The number of weighs made and the NET WEIGHT PARTIAL TOTAL are printed.

To print and zero the GENERAL TOTAL one should press for a few seconds the **ENTER/PRINT** key:

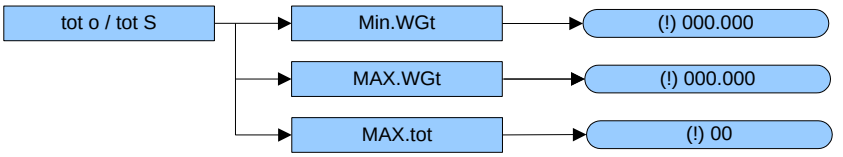
- With **normal totalisation**, the "G.totAL" message and then the number of weighs and the accumulated total will be displayed.

The number of weighs made and the NET WEIGHT GENERAL TOTAL are printed.

NOTE: The printed data remain in any case until the next printable totalisation.

8.11.5 FIELD OF TOTALISATION AND AUTOMATIC PRINT OF THE PARTIAL TOTAL

In weighing you can quickly change the following parameters by pressing the **MODE** key 2 times consecutively:



Press the **TARE** and the **ZERO** keys to select the parameter and the **ENTER / PRINT** key to select it and then set the value via the numeric keypad or as described in the paragraph "NUMERIC INPUT WITH THE 5-KEY KEYPAD"

Min.WGt: MINIMUM WEIGHT FOR THE TOTALISATION.
Minimum weight that must be present on the scale to be able to run a totalisation.

MAX.WGt: MAXIMUM WEIGHT FOR THE TOTALISATION.
Maximum weight that must be present on the scale to be able to run a totalisation.

MAX.tot: NUMBER OF CONSECUTIVE TOTALISATION FOR PRINTING AND AUTOZERO OF PARTIAL TOTAL
After making the set weighs, is printed and reset the general total automatically accumulated; set a value between 0 and 63.

A value of 0 disables the function.

The changed parameters are not stored permanently in the memory of the indicator; if you want to permanently store these settings, you must edit in the indicator's SETUP.

8.11.6 MEMORY STORAGES (only for 17-key indicator)

It is possible to memorize the weigh totalisation in one of nine memory storages (identified from 1 to 9):

- Press in sequence the **F** and **5** keys; the display shows "*rn n*":
- Enter the desired storage number (from 1 to 9).
- Now all the made totalisations are stored in the storage number just entered.
- To change the storage, repeat the same operations.

To recall or zero the PARTIAL TOTAL of a storage, it is necessary to recall first its identifying number, as previously described; however the GRAND TOTAL is not available for each storage.

All values accumulated in the individual registers are automatically zeroed each time that the instrument is turned off; it is possible to permanently store this data if the instrument is fitted with the date/time option.

8.12 VERTICAL TOTALIZER (Sum by recipe) (tot 5)

In this mode it is possible to totalize a weight as described in the operating mode "HORIZONTAL TOTALIZER", but at each totalisation the indicated weight is totaled and automatically put in tare; in this way it is possible for example to fill for example a container with different products.

At the end of the operations of totalisation, if you want to display the gross weight on the scale is necessary to cancel the TARE as described in the paragraph "CANCELLING A TARE".

8.13 PIECE COUNTING (Coun)

Using this operating mode, it is possible to use the scale as piece counting.

8.13.1 COUNTING PROCEDURE WITH REFERENCE

With the 5-key indicator

1) Place the empty container on the scale and press TARE to tare it.

2) Check that the zero is on the display and press the MODE button: the counting function is enabled.

3) The display suggests a REFERENCE QUANTITY. The possible options are: 5, 10, 20, 30, 40, 50, 60, 75, 100, 200.

4) Press "**ZERO**" or "**TARE**" the number of times needed to reach the desired sample size.

5) Put the quantity of pieces chosen for the sample on the scale and press **ENTER**/**PRINT** to confirm or C to cancel the operation and return to weighing.

6) Press **ENTER**/**PRINT**; the display will indicate "SAMPL" the indicator will calculate the Average Piece Weight (**APW**). After a few instants the display will indicate the quantity selected put on the platform.

7) Add the rest of the items to count in the container and whose value will appear on the display.

8) Unload the scale, the APW will remain stored in memory for the next counting of similar pieces, without having to repeat the REFERENCE operation.

9) By pressing the MODE key one switches from the display of the number of pieces to the display of the net weight and vice versa.

10) **To carry out a new reference operation,** press at length the MODE key and repeat the operations as describe in point **3).**

If the number of calculated pieces is greater than 999999, the display shows just the first 6 digits on the right.

REFERENCE WITH FREE QUANTITY

With the 17-key indicator it is possible to introduce by keyboard a reference quantity different from the ones proposed by the **MODE** key:

- With the scale at zero, after having stored a tare, press "**F**"+ "**5**; the display will indicate "n 5" and then "0" or a quantity already stored.
- Modify and/or enter the quantity (up to 999999) using the numeric keys.
- Follow the operations describe in point **5)** in the **COUNTING PROCEDURE** section**.**

8.13.2 ERROR "Er .Not" FOR WEIGHT INSTABILITY DURING THE SAMPLING AND MINIMUM WEIGHT OF THE SAMPLE

It may happen that during the sampling phase the weight is unstable and therefore it is not possible to correctly calculate the APW. The error message "Er .Not" is show and this message is displayed for three seconds. It must therefore repeat the sampling.

It is advisable to use a reference quantity equal or greater than 0,1% of the scale capacity.
In any case, the weight of the reference quantity should not create an APW lower than the two internal points of the converter (intrinsic limit of the instrument); if this condition takes place, during the sampling, the display will indicate for an instant "Error" and the quantity put on the plate will not be accepted. One should therefore use a higher reference quantity.

8.13.3 SETTING THE SAMPLING INTERVAL.

With the indicator with 17 key you can change the sampling time during the weighing, pressing the "**F**" and the "**7**" key in sequence:

- Set the desired time.
- Confirm with ENTER/PRINT.

The entered value is stored in Setup and then remains valid even after power off.

With the 5-key indicator, setting the sampling time is only possible in the Setup environment (T).

8.13.4 COUNTING WITH INTRODUCTION OF THE AVERAGE PIECE WEIGHT

It is possible to view or to enter through the keyboard a APW known to accelerate the reference operations:

- With the scale at zero, after having stored a tare, press “**F**” + “**6**”**,** or the ENTER/PRINT key at length.
- The display will indicate "APW" and then "000.000" or a previously entered value expressed with three decimal digits in the programmed unit of measure.
- Enter the APW value with the keyboard (or leave the one present) and press **ENTER**/**PRINT** to confirm.

Example

Unit of measure of the APW in g.

“000.000 means 000,000 g (for example APW = 001,050 = 1,05 g).

8.13.5 PIECE COUNTING IN EXTRACTION.

1) Load a FULL container on the scale and press "**TARE**" to tare it.

2) Press "**MODE**": The display suggests various REFERENCE QUANTITIES: 5,10,20,30,40,50,60,75,100, 200.

3) Press "**ZERO**" or "**TARE**" various times until the chosen quantity is displayed.

4) From the container take off the same number of pieces and press "ENTER/PRINT” to confirm. The display shows "SAMPL" while the indicator calculates the Average Piece Weight. The display shows in negative the quantity extracted.

5) Continue the counting in extraction.

8.13.6 PRINTING IN THE COUNTING MODE

If it has configured the presence of a printer, at the execution of a weight through the ENTER/PRINT key, it will run a print showing also the amount of PIECES (PCS) on the scale at that time and the average piece weight.

9 USE THE INDICATOR AS WEIGHT REPEATER

If it has purchased the indicator in the repeater version, the indicator can play a function in the choice between the following:

- UNIVERSAL SINGLE SCALE WEIGHT REPEATER
- WEIGHT REPEATER MULTISCALE

The operating mode is selectable in the Setup environment (T).

9.1 UNIVERSAL SINGLE SCALE REPEATER (rEPE)

Through this way of operation it is possible to use the indicator to repeat the weight of any scale, but without the possibility to repeat keys.

At the start-up the indicator enter in waiting for data; if it not receive a string of successful communication, the communication parameters results wrong, or does not receive any character, it remains in the test condition, so with all the central segments on.
When it has identified the serial stringo f the connected instrument, the indicator repeats the display's data or the weight's string of the instrument which is connected to.

WARNING:

- Keys pressed in the REPEATER are not repente on the TRANSMITTER and vice versa.
- The indicator provides as a simple weight repeater: is only enabled the C-ON/OFF key to turn on/off the instrument.

9.2 MONO-MULTISCALE REPEATER (MASTr)

Through this operating mode it is possible to use the indicator to repeat the weight of one or more scales, with the possibility to repeat even keys, functions, prints and store the weight in memory (if present).

The system can be composed of one or more indicators (up to 32, called **SLAVES**), having one or more weighing systems, which communicate with another indicator (called **MASTER**) that act as weight repeater.

On it can be displayed (and printed if the printer is planned) the weight of each single scale or the sum of the weight detected by the single scales.

SLAVES can be connected to up to 4 platforms.

Morover, it is possible to realize a network with a MASTER, which performs remotely functions of the connected scales, and one or more REPEATERS, having the only function to repeat the weight.

9.2.1 OPERATION

When turned on, the MASTER predisposes himself to the connection with the present SLAVES (the message "ECo n" appear, where n is the SLAVE number that you are trying to detect):

- If it has detect more than one SLAVE, displays the message "SuM" e , so the sum of all detected SLAVES;
- If it has detected only one SLAVE, it stands on that scale.
- If all the instruments are switched off or if the radio signal does not reach the MASTER, on the display of the same the message "Eco n" appears where n is the address of the SLAVE with which it try to communicate.

If it has configured only one slave all the keys pressed on the MASTER are repeated on the SLAVE.

If more slave are configured and it is not in the SUM viewing, all the keys pressed on the MASTER are repeated on the SLAVE with the exception of the MODE key and NUMERIC KEYS.

9.2.2 KEYS MAP REPEATED FROM MASTER IN VIEW OF A SLAVE

Pressed key	3590 keyboard	CPWE keyboard	DGT keyboard
ZERO	ZERO	F6	ZERO
TARE	TARE	TARE	TARE
MODE (*)	RIGHT ARROW	F9	MODE
ENTER	ENTER	ENTER	ENTER
C	C	C	C
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
0	0	0	0
PUNTO	SHIFT	PUNTO	NA
FN	F1	F1	F

NA: not avaible key
(*): key repeated only if it is configured in SETUP the presence of only one SLAVE.

9.2.3 SLAVE SELECTION / SUM

If more slaves are configured, it is possible to toggle the viewing on a single SLAVE or on the SUM.

With the 5-key indicator

- Pressing the **MODE** key it toggles SLAVE in SLAVE in order of address: the display shows "ScA n" (where n is the number of the SLAVE), then it displays the weight transmitted by the selected SLAVE.
- holding down the **MODE** key for a few seconds, it is possible to see the sum of the weights on all the detected scales: the display shows "SuM", then the sum of the net weight on the detected scales.

With the 17-key indicator, the operation is similar to the previous one, but you can directly select the desired SLAVE, if the MASTER is in sum viewing:

- if they are configured from 2 to 9 slaves it is possible to directly select the desired SLAVE through the relative numeric key on the keyboard (**E.G:** MASTER → press key 1 → SLAVE 1 selection).
- If 10 or more slaves are configured, it is possible to directly select the desired SLAVE by entering the corresponding number using the numeric keys and then pressing the ENTER/PRINT key (**E.G:** MASTER → press key 1 → press key 0 → press ENTER/PRINT → SLAVE 10 selection).

If the SLAVE is connected to multiple platforms, once you have selected the desired SLAVE, it is also possible to select the desired SLAVE'S platform by pressing the numeric keys.

9.2.4 TARE EXECUTION IN SUM MODE

It is possible to execute the manual or the semi-automatic tare of the sum (in both cases the PT symbol on the LCD display is activated).

9.2.5 EXECUTION OF THE PRINTS

When the MASTER repeat a single SLAVE, it is possible to make the print on both or on the one provided of a printer. Methods and printed data depends on the operating mode selected in the SLAVE.

Se nel sistema sono presenti più di uno SLAVE, il numero dello SLAVE dal quale proviene il peso verrà aggiunto sulle singole stampe direzionate sul MASTER.

When the MASTER repeats the sum of more SLAVE, it is possible to print on it weights of individual SLAVE, the sum of the tare and the difference, if on it there is a printer. Moreover, even in this case it is possible to print the header, the receipt number and the date / time, if programmed.

9.2.6 WEIGHS LIST OPTIONS (STANDARD IN THE MODEL DFWPM10USB)

If the MASTER provides it, it is possible to save the weight in a list that can contain up to 487 weighings and that can be read to PC or printed at a later time.
The print function are disabled in this case.

The data stored in the weighs list, include:
- progressive number of the weigh

- scale number or text indication "SuM"
- indication of PARTIAL TOTAL indicated by an asterisk next to the number of scales or text "SuM"
- date and hour
- net weight (equal to the gross weight, even if the tare is done)
- tare weight (always equal to zero).

INITIALIZATION OF MEMORY

For the operation of the weighing list with a new memory, it must perform the initialization of it , otherwise if try to save the weight, the message"Err .chA" appears.
For the initialization, make reference to "LIST WEIGHS MANAGEMENT".

STORING THE WEIGHT

Pressing the **ENTER/PRINT** key the current weight value is stored in the list.
If MASTER is in sum viewing, i twill store the sum of weights.

PARTIAL TOTAL STORAGE

If the function is enabled in SETUP, it is also possible to store the sum of stored weights to that point by holding down the ENTER/PRINT key:

- The display show the "CLoSEP" message
- press ENTER/PRINT to confirm: display show the message "totAL" and then the sum of the previous stored weighs, flashes for five seconds, then the instrument returns to weighing.
- Pressing the C key the storage is canceled.

WEIGHS LIST MANAGEMENT

The weighs list management depends on the setting in SETUP.
It is possible to decide whether to allow the management only from PC, or allow it both on PC and on the instrument:

In the first case, pressing long the **ENTER/PRINT** key, the master activates direct access to the connection to PC, the message "PC .bA it" appears:

- The reading and inizializating of the list of weights, will only be possible on PC through the software WeighConsole™. For the procedure, refer to the software manual of DiniTools™.

or

- It can send serial commands to the indicator to manage the memory (described in the paragraph "FORMAT OF SERIAL COMMANDS", T)

If the list is empty, the message "EMPtY" appears and the indicator is not connected to the PC.
By pressing any key the connection turned disable (appears the next step in the menu); to reactivate it, must select the step "PC .Conn" and press ENTER/PRINT.
In the second case, pressing long the **ENTER/PRINT** key, it is possible to access to a menu: the display shows the first step.
With **TARE** and **ZERO** keys it is possible to select one of the following steps and confirm with **ENTER/PRINT**:

PC .Conn — Step for the PC connection: pressing **ENTER/PRINT** the connection is activated, the management mode of the list are as described above.

Prn.LSt Print of the weighs list: pressing the **ENTER/PRINT** key, the message "Pr intP" appears, pressing the **ENTER/PRINT** key to confirm (the message "L iSt . ." appears) or the **C** key to exit from the step without print.
If confirm with ENTER/PRINT but the list is empty, the message "EE.EMP" appears.

dEL.LSt Clearing of the list from the memory: pressing the **ENTER/PRINT** key, viene the message "ErASEP" appears, press the **ENTER/PRINT** key to confirm (the message "dEL . ." appears) or the **C** key to leave the step without erasing the memory.

n.SLAVE Selection of a slave or of the sum: pressing the **ENTER/PRINT** key, the display shows the "S HH" message, then it will be possible to enter the number of the slave or the value "00" to select the sum of weights. This step appears only if multiple slave are set in the step "nuMSL".

OFF.nSt It allows to turn off only the master by pressing the **ENTER/PRINT** key.

Pressing the **C** key to exit from menu.

9.2.7 TURNING OFF THE MASTER AND SLAVES

If the MASTER displays the sum of the weights:
- pressing long the **C** key on the MASTER this will be turned off.
- to turn off the SLAVE you must press the button **C** on the SLAVE.

If the MASTER repeat a single SLAVE:
- It is possible to turn off the SLAVE pressing the **C** key on the MASTER until the message "-oFF-" appears or pressing long the **C** key directly on the SLAVE.
- It is possible to turn off the MASTER pressing the **C** key on it until the message "-oFF-" appears for the second time.

If the MASTER is displaying the "Eco n" message, pressing long the **C** key on the MASTER this will be turned off.

10 INSTRUMENT MESSAGES WHILE IN USE

MESSAGE	DESCRIPTION
2Ero	The scale is zeroing the weight.
AL.Err	It is displayed when one selects the alibi memory functioning mode, and upon start-up, the alibi memory is not connected or there are communication problems between the indicator and the board. The “unit of measure/pounds conversion” functioning is automatically set, but not saved in the set-up environment.
Er. I.b.H	A function has been linked to input X (from 1 to 4) and this is not present; see the “ inPutS” parameter of the set-up environment (T).
Er.r.b.H	In a set point functioning mode the relay X has been set (from 1 to 4) and this is not present; see the “outPut” parameter of the set-up environment (T).
buSY	Print under way (PRN serial port is occupied) or indicator waiting to transmit a printing to a PC.
unStAb	One is trying to print with an unstable weight.
un.oUEr	One is trying to print with the weight in underload or in overload, in other words, with a weight of 9 divisions greater than the capacity or of 100 divisions below the gross zero.
LoW	Weight less than the minimum weight provided for the printing, the totalisation or the transmission of the string, standard or extended, upon pressing of the print key.
no.0.unS	Weight not passed by net 0 or by instability.
ConU.	In standard mode, with approved instrument, one is trying to print while the instrument is converting the unit of measure.
no in	In the input/output mode (set as “ in.out”), one is trying to acquire a second time the input weight.
no out	In the input/output mode (set as “ in.out”),one is trying to acquire a second time the output weight.
no 1	In the input/output mode (set as “G.t.” or “ 1St.2nd”),one is trying to acquire a second time the input weight.
no 2	In the input/output mode (set as “G.t.” or “ 1St.2nd”),one is trying to acquire a second time the output weight.
Er.Not	Unstable weight.
Error	In the counting mode, the sampling has not been made because one should use a higher reference quantity. In the equalization procedure, the cell that is being equalized is not the cell with the greater weight.
E9.Err	It is displayed if it was not possible to perform the equalization.
StorE	It is displayed when data is stored in the permanent storage of the instrument (setpoint, tares, etc.)
Err.cLK	Communication problems with the date/time of the indicator: check the F.ModE >>CLoCK step of the set-up (T).

SEt.cLK	Date/time not set: check the F.ModE >> CLoCK step of the set-up (T).
PrEc.	It is displayed if one tries to calibrate the zero point without first having confirmed the number of calibration points.
ErPnt	During the acquisition of a calibration point a null value has been read by the converter.
Err.rF	Selecting the "MASTER" functioning mode this message is show when it's enabled the radio and enabled the energy saving mode, it is displayed when the indicator doesn't detect the SLAVE for more than 60 seconds. This message is shown for 3 seconds after that the instrument is turn off.
Er 11	Calibration error: a too small sample weight has been used; it is advisable to use a weight equal to at least half of the scale capacity.
Er 12	Calibration error: the acquired calibration point (tP1 or tP2 or tP3) is equal to the zero point (tP0).
Er 37	The number of converter points per scale division is less than two. Carry out again the calibration with special attention to the capacity and the division.
Er 39	It is displayed when the instrument has not yet been calibrated and initialized. Press the **TARE** key when the instrument displays "Er 39"to enter the technical set-up environment. Carry out the initialization of the indicator ("dEFAu"parameter), and the selection of the type of keyboard ("KEYb"parameter), and finally the programming of all the parameters of the set-up environment and the calibration.
Er 85	It is displayed when the instrument has been initialized but not yet been calibrated. Press the **TARE** key when the instrument displays "Er 85"to enter the technical set-up environment and carry out the calibration.
C.Er. 36	During the calibration some internal negative points have been calculated: - the calibration point is less than the zero point. - the signal is negative (check the connections)
undEr (blinking)	the weight in underload (i.e. a weight of 100 divisions below the gross zero, if the instrument is approved) is notified through this message and by an acoustic signal.
oUEr (blinking)	the weight in overload (i.e. a weight of 9 divisions greater than the capacity) is notified through this message and by an acoustic signal.
Eco H	It is displayed for an instant if the master can connect to the slave X; if the connection is not possible, the message remains fixed and the master emits an acoustic signal.
tiLt	Appears when the tilt of the instrument exceeds the 2% for the application on pallet truck or the 5% for the application on forklift trucks. The activation of the tilt has a delay of about three seconds from the detection of the excessive inclination.

DECLARATION OF CONFORMITY

This device conforms to the essential standards and norms relative to the applicable European regulations. The declaration of Conformity is available in the site web www.diniargeo.com.

WARRANTY

The TWO YEARS warranty period begins on the day the instrument is delivered. It includes spare parts and labour repair at no charge if the INSTRUMENT IS RETURNED prepaid to the DEALER'S PLACE OF BUSINESS. Warranty covers all defects NOT attributable to the Customer (so are not included in the warranty, failures resulting from improper use) and NOT caused during transport.

If on site service is requested (or necessary), for any reason, where the instrument is used, the Customer will pay for all of the service technician's costs: travel time and expenses plus room and board (if any).

the Customer pays for the transport costs (both ways), if the instrument is shipped to DEALER or manufacturer for repair.

The WARRANTY is VOIDED if any of the following occurs: repairs or attempted repairs are made by unauthorised personnel, connected to equipment installed by others, or is incorrectly connected to the power supply, or instrument has defects or damage due to carelessness or failure to follow the guidelines in this instruction manual.

This warranty DOES NOT provide for any compensation for losses or damages incurred by the Customer due to complete or partial failure of instruments, even during the warranty period.

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