

550 Series

Washdown Bench Scale

Operators Manual



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Section 1. Introduction and Specifications

Thank you for purchasing a Doran Scales product. Please read this manual to ensure obtaining all the benefits that this scale can provide. If any questions arise, please contact the Doran Scales Technical Support Department at 630-879-1288.

Unpacking Your Scale

Before unpacking your Doran scale, please read the instructions in this section. Your new scale is a durable industrial product, but it is also a sensitive weighing instrument. Normal care should be taken when handling and using this product. Improper handling or abuse can damage the scale and result in costly repairs that will not be covered by the warranty. If you notice any shipping damage, notify the shipper immediately. Please observe the following precautions to insure years of trouble free service from your new scale.

- DO NOT drop the scale
- DO NOT immerse the scale
- DO NOT drop objects on the platform
- DO NOT pick up the scale by the top of the weighing platform
- Carefully remove the scale from the shipping carton

Specifications

NTEP Certificate	Class III – 3,000d; Cert. 19-XXX
Enclosure	Stainless Steel and ABS Plastic base
Product Dimensions	9.5" W x 4.7" H x 11" D
Environmental Protection	IP68 – Certified
Legal for Trade Temperature Range	14 °F to 104 °F (-10 °C to +40 °C)
Power Input	100 – 240VAC 50/60Hz
Internal Rechargeable Battery	6 V, 4 AH, lithium rechargeable battery 100 hours of continuous use using automatic shutoff timer.
Display	1.2" high, 6 digit backlit LCD
Displayed Units	lb, oz, kg, g
Controls	On/Zero, Unit, Net/Gross, Tare, Off

Model	Standard	Model	Certified
550-06	6 x 0.001 lb 3 kg x 0.5 g	550-06-LFT	6 x 0.002 lb 3 kg x 1 g
550-12	12 x 0.002 lb 6 kg x 1 g	550-12-LFT	12 x 0.005 lb 6 kg x 2 g
550-30	30 x 0.005 lb 15 kg x 2 g	550-30-LFT	30 x 0.01 lb 15 kg x 5 g

Section 2. Scale Operation Guide

This section contains information and instructions for basic scale operation.



Fig. 1: Front Panel

Scale Display



Stability indicator. Indicates when stability is sensed on the platform. Changes in weight, vibration or air currents can cause the scale to go into motion and turn off the stability indicator.



Center of zero indicator. The annunciator will illuminate while the scale is displaying a zero weight.

NET

Indicates a net weight is displayed. Net weight is displayed when a tare value is present.

GROSS

Indicates a gross weight is displayed. Gross weight is indicated only when a tare value is present.

lb, kg,
g, oz

Indicates current unit of measure



Checkweigh annunciators (initially disabled; please first set nonzero limit values in [FnC 03](#) in order to use this feature)
HI = overweight; OK = normal; LO = underweight



While the scale is charging, the charging indicator is red. When the charging is complete, the charging indicator will turn green.



The bars below the battery annunciator indicate remaining battery power. When the battery symbol  (without any bars) is flashing, there will be approximately 1~2 hours of battery power remaining before the scale turns off. In this case, please fully recharge the scale before using the scale again.

Scale Operation

Adjust leveling feet of your scale until the bubble of the spirit level is within the horizontal range. Then you can use scale buttons to perform scale operations.

NOTE: The  button may be referred to as ON/ZERO or ZERO.

Power

Press ON/ZERO to turn the scale on

Press Off to turn off

Basic Weighing Operation

- 1) Remove all items from the scale platform
- 2) Press the ZERO button to zero the scale
- 3) The weight display now reads zero
- 4) Place an item on the scale platform and wait for the stability indicator to turn on, indicating an accurate, stable weight

ZERO

ZERO is used to zero the scale display. To zero the scale, wait until the scale is stable and press the ZERO button. The scale will not zero if the scale is in motion or when a tare is present. The zero function will operate over the entire capacity of the scale.

UNITS

Press UNITS to change the current unit of measure. Lb, kg, g, oz are available.

NET/GROSS

Press to toggle between Net and Gross weighing mode when a tare is present. Gross weight is the total amount of weight on the platform. Net weight is the Gross weight less the active tare weight.

TARE

Press to tare the current displayed weight. The indicator enters net mode. The tare function operates over the full capacity of the scale.

When in Net mode, and the platform empty, press TARE to clear the tare value and exit tare mode

Battery Operation

The indicator runs on lithium battery. To maximize battery life, set the Automatic Shutoff Timer (FnC 02) which will automatically power down the scale after a period of non-use.

Recharging Battery

To charge the battery, plug in the charging pad and place into the receptacle on the bottom rear of the scale. The pad is magnetic and will secure in place when in the correct orientation. While the scale is charging, the charging indicator is red. When the charging is complete, the charging indicator will turn green. The scale can be used while recharging the battery.

Leaving the scale plugged in will ensure a fully charged battery and will not affect the life of the battery. The battery supports at least 300 recharge cycles before requiring replacement.



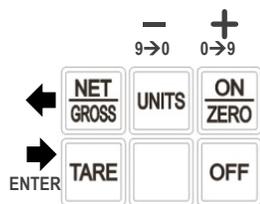
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Section 3. Scale Setup Guide

Parameter Setup

With power on press NET/GROSS and ON/ZERO at the same time to enter Function Mode menu, then press ON/ZERO or UNITS to navigate:



ON/ZERO key ⇒ Next / digits up (0→9)
UNITS key ⇒ Previous / digits down (9→0)
TARE key ⇒ Move the cursor to right
NET/GROSS key ⇒ Move the cursor to left.

Function Mode menu

DISPLAY	LEVEL 1 FUNCTION	DISPLAY	LEVEL 2 FUNCTIONS
00 ESC	Exit Function Mode menu	---	---
01 FnC	Function Setting menu	FnC 00	Return to Function Setting menu
		FnC 01	Backlight Setting
		FnC 02	Automatic Shut-off Timer
		FnC 03	Checkweigh Modes
		FnC 04	Restore the default settings
		FnC 05	Noise Filter setting
		FnC 06	Hold Function setting
		FnC 08	Two Weighing Units Setting
FnC 09	Unstable Tare		
02 EC	Simple Weight Calibration	---	---

01 FnC Function Setting menu details

FnC 01	Backlight Setting
oFF, on	When set to on, Backlight will dim when scale is not in use and will automatically turn on when in use.

FnC 02	Automatic Shutoff Timer
0-9	Select number of minutes before the scale automatically shuts off. Set to 0 to disable. Default is 2 minutes.

FnC 03	Checkweigh Modes
	<p>Press TARE to enter sequence</p> <ol style="list-style-type: none"> 1. Enter overweight (HI) value (default = 0)* 2. Enter underweight (LO) value (default = 0)* 3. 11100b is displayed 4. Left most digit: 1 = beep for accept on, 0= no beep 5. Second to left digit: 1 = beep when stable, 0= beep when unstable 6. Third to left digit: 1 = beep when Accept, 0= beep when over or under and greater than 10d above zero
	<p>*Checkweigh Modes are disabled when overweight and underweight values are both 0. Checkweigh Modes are enabled when overweight and/or underweight values is/are non-zero.</p>

FnC 04	Scale Default (non approval only)
	Press ZERO to select Format, then press TARE to default scale settings. Exit setup and restart the scale to re-initialize the scale to factory default settings.

FnC 05	Filter Settings (non approval only)
Zero: 0-9 (default 0) FiL: 0-9 (default 0) 3db: 0-9 (default 5)	Adjustments to offset environmental weighing interferences Press TARE to enter sequence 1. ZERo "Weight Noise Threshold" eliminates minor <i>weighing noise</i> when weight on scale is over 1/3 full capacity: 0=off; 1-9 = 1d to 9d threshold (weighing fluctuation below this threshold is de-noised). 2. FiL "Weighing Sampling Period" sets time period for scale to gather weighing information: 0 is shortest, fastest, & least stable. 9 is longest, slowest, & most stable. 3. 3db "Weighing Bandwidth" sets frequency range for gathering weighing information: Select 0-9. Default is 5. 0 is lowest, slowest, & most stable; 9 is highest, fastest, & least stable.

FnC 06	Hold Function (non approval only)
hoLd	0: Disabled (default) 1: Peak Hold Mode 2: Hold on stable weight, cleared by pressing any key 3: Hold on stable weight, cleared when weight removed

FnC 08	Two Weighing Units Setting
uSEr	This setting allows the use of only two units (instead of four) for quick unit switching. 0: Disabled (lb, kg, g, oz available) 1: kg (lb, kg available) 2: g (lb, g available) 3: oz (lb, oz available)

FnC 09	Tare on Demand (non approval only)
St	0: Disabled 1: Tare enabled when in motion

02 EC Simple Weight Calibration menu details

02 EC	Simple Weight Calibration (non approval only)
	<p>Press Tare to enter sequence</p> <ol style="list-style-type: none"> 1. Scale capacity is displayed 2. Press NET/GROSS to select digit 3. Press Unit ON/ZERO to change digit value 4. With rightmost digit flashing, empty weigh pan, then press TARE. 5. After stabilization, place displayed weight on weigh pan, then press TARE. 6. After 3 beeps, remove weight from weigh pan. 7. Calibration now finished.

Section 4. Troubleshooting

If any problem persists, contact Doran Tech Support at 630-879-1288.

Problem	What to Do or Check
Weight reading will not repeat or does not return to zero when weight is removed	Examine the weighing platform for any interferences. Be sure that nothing is inside the platform, under the load cell or the weigh bridge structure.
Scale will not indicate full capacity or go into overload	Make sure that there is nothing caught in the scale under or around the load cell or spider, which would interfere with their movement. If not, check the overload stops using the above procedure.
Scale will not zero when the ZERO button is pressed	Make sure that the scale is stable ( annunciator is ON) when ZERO is pressed.
Weight readings don't seem to be correct	Check the scale's accuracy with a test weight. Recalibrate if necessary.
Scale reading is bouncing	Check for air currents and/or vibration around the scale. If that is the cause, it may be necessary to change the Display Filter parameter.

Operation Error Codes

Error Message	Descriptions
E1	Initial zero is higher than the zero range when switching the indicator on
E2	Initial zero is lower than the zero range when switching the indicator on
E4	A/D Error
oL	The weight of the object is over 9 divisions of the maximum capacity
-----	Startup zero is below the allowed range

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