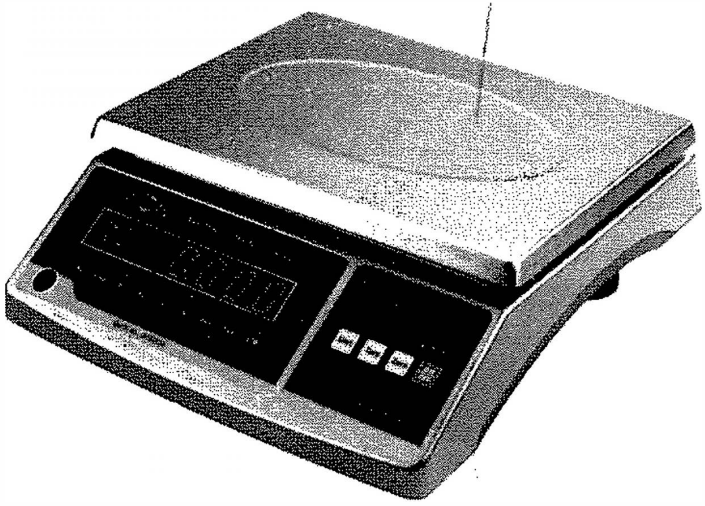
Diesella



18560205 ~ 18560235 Series

User/Technical Manual

Contents subject to change without notice

Version 1.0
07/2017

TABLE OF CONTENTS

1. INTRODUCTION

General and Safety Information

- For use in dry environments only.
- This product uses a Lead-acid rechargeable battery. Dispose of according to local laws and regulations.
- Read and understand all operating instructions before using this product. Keep this manual for future reference.

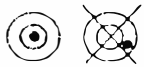
- Allow sufficient warm up time. Turn the scale on and allow up to 10 minutes for internal components to stabilize before weighing.
- Record the weight shortly after placing a load on the platter. Leaving loads in place for extended periods may vary the load cell's output signature and may result in a less accurate reading.
- Avoid extended exposure to extreme heat or cold. Optimum operation is at normal room temperature. See operating temperature range in the specifications table. Allow the scale to acclimate to room temperature before using.
- When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation. Over time, the operating time per charge will degrade. If the operating time is no longer acceptable even after recharging, the battery must be replaced.
- Electronic scales are precision instruments. Do not operate near cell phones, radios, computers or other electronic devices that emit radio frequencies that may cause unstable readings.

Specifications

Model	18560205	18560215	18560225	18560235
Max. Capacity	3 kg (6 lb)	6 kg (15 lb)	15 kg (30 lb)	30 kg (60 lb)
Readability	0.5 g (0.001lb)	1 g (0.002 lb)	2 g (0.005 lb)	5 g (0.01lb)
Display Resolution	1:6000	1:6000	1:7500	1:6000
Min. Recommended Weight	10 g (0.02lb)	20 g (0.04 lb)	40 g (0.1 lb)	100 g (0.2 lb)
Construction	Stainless steel pan, plastic housing			
Weighing Units	kg / g / lb /oz / lb:oz			
Calibration unit	kg / lb			
Modes	Weighing, Tare			
Weight Display	1-Window 7 digits, 0.8" (20.3mm) high, 7 segments red LED display			
Zero Range	Power-on zero range: calibration zero point±10%FS; ZERO key range: power-on zero±2%FS			
Tare Range	Full capacity			
Stabilization Time	<5 seconds			
Operating Temperature	14° to 105°F (-10° to 40°C)			
Humidity Range	<90% relative humidity, non-condensing			
Power Supply	6V 4Ah lead-acid battery or power adapter (12Vdc/500mA with central positive)			
External Interface	None			
Safe Overload Capacity	150% of capacity			
Platter Dimensions (L x W)	290 x 220 mm; 11.42" x 8.66"			
Scale Dimensions(L x W x H)	294 x 342 x 115 mm; 11.58" x 13.46" x 4.53"			

2. Unpacking and Setup

- Remove the scale from the box and place it on a firm, level surface. Avoid locations with rapid temperature changes, excessive dust, moisture, air currents, vibrations, electromagnetic fields, heat or direct sunlight.
- Adjust the leveling feet until the bubble is centered in the circle of the level indicator (located on the front panel).
  NOTE: Ensure that the scale is level each time its location is changed.



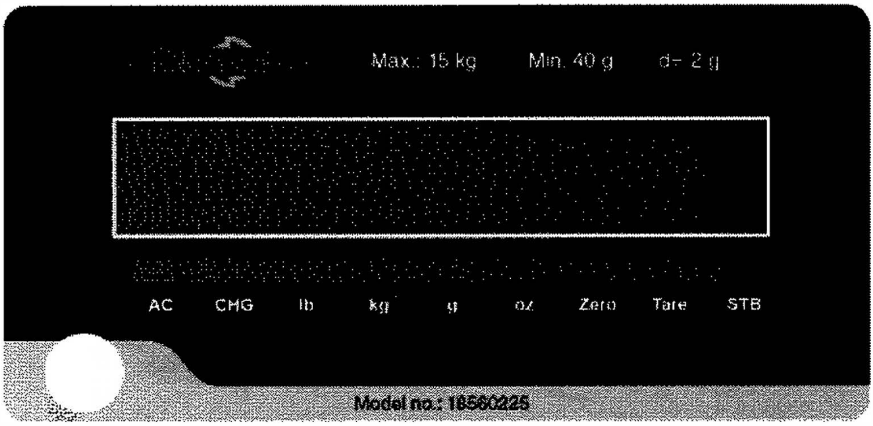
- The internal rechargeable battery should be fully charged for up to 12 hours before using the scale for the first time.
- Connect the supplied AC adapter to the power input receptacle underneath the scale. Plug the AC adapter into a properly grounded power outlet. The battery will begin charging.
- If the scale will be stored or transported in the future, save the packaging material to ensure the best possible protection for the scale.

Contents

- Scale
- 12Vdc/500mA adapter
- User / Technical Manual

3. OVERVIEW OF CONTROLS AND FUNCTIONS

3.1 Front Display

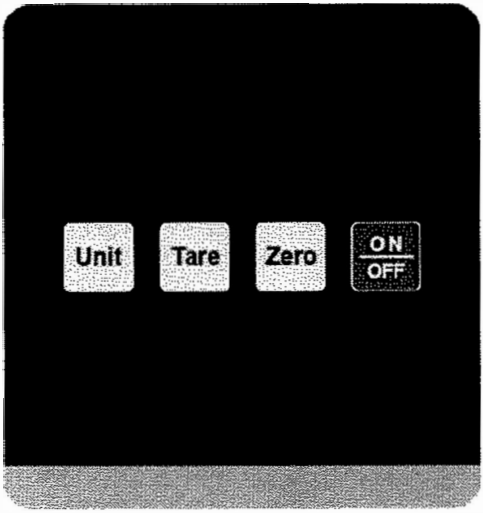


- **AC** - The scale is powered by adapter
- **CHG** - The battery is charged by adapter
- **lb** - Measure unit is lb or lb:oz
- **kg** - Measure unit is kg
- **g** - Measure unit is g
- **oz** - Measure unit is oz or lb:oz
- **Zero** - Scale is zeroed, gross weight is 0, tare is 0.
- **Tare** - Display reading is net weight; tare is not 0.
- **STB** - Weight reading is stable

3.2 Indicator Display Character Definitions

ASCII	LCD/LED Show	ASCII	LCD/LED Show	ASCII	LCD/LED Show
0		A		N	
1		B		O	
2		C		P	
3		D		Q	
4		E		R	
5		F		S	
6		G		T	
7		H		U	
8		I		V	
9		J		W	
		K		X	
		L		Y	
		M		Z	

3.3 Key Functions



Keys	Function Description
ON OFF	Press to power on the scale when the scale is off Press and hold to power off the scale when the scale is on In other modes, press to exit and return to self-examination status
Tare	Press to tare the weight when reading is stable, tare range: 100%FS
Zero	Press to set the zero point after the scale is stable, zero range: power-on zero point±2%FS
Unit	Press to change the measuring unit among: kg, g, lb, oz, lb:oz
ON OFF + Tare	Press and hold to enter calibration mode
ON OFF + Zero	Press and hold to check inner code and voltage mode
ON OFF + Unit	Press to enter parameter setting mode

4. OPERATIONS

4.1 Power on / Power off scale

Place the scale on a flat, stable surface. Level the scale using the leveling bubble at the lower left side of the display.

With the weighing platter empty, press the ON/OFF key to power on the scale. The self-check will run and the scale will display a zero reading.

When the scale is beyond the power-on zero point range (calibration zero point +/- 10%FS), after powering on, the scale displays "0- - - - -" or "0_ _ _ _".

To power off the scale, press ON/OFF key again.

4.2 Zeroing the display

You can press the ZERO key at any time to set the zero point. This will usually only be necessary when the platform is empty. When the zero point is obtained, the display will show the indicator for zero.

When the scale is beyond the zero key range (power on zero point +/- 2%FS), after pressing ZERO key, the scale displays "0- - - - -" or "0_ _ _ _".

4.3 Taring

Zero the scale by pressing the ZERO key if necessary when reading is stable. The zero indicator will be on.

Place a container on the platform, a value for its weight will be displayed.

Press the TARE key to tare the scale. The weight that was displayed is stored as the tare value and that value is subtracted from the display, leaving zero on the display. The "Tare" indicator will be on. As product is added only the weight of the product will be shown. The scale could be tared a second time if another type of product was to be added to the first one. Again only the weight that is added after taring will be displayed.

When the container is removed a negative value will be shown. If the scale was tared just before removing the container this value is the gross weight of the container plus all product that was removed. The zero indicator will also be on because the platform is back to the same condition it was when the ZERO key was last pressed.

4.4 Switching measuring unit

In normal weighing mode, press Unit key to switching the measuring units between kg, g, lb, oz and lb:oz.

4.5 Normal Weighing Mode

When scale is powered on and back to 0, first tare the empty container then place the sample in the container. The display will show the weight and the units of weight currently in use.

5. Calibration

Note: Prepare the following standard weights: 1/3FS, 2/3FS, Full FS before proceeding a calibration.

5.1 Under the normal weighing mode, press and hold TARE and ON/OFF key until scale displays "CAL".

5.2 Then scale displays "UNIT KG" or "UNIT LB" for the calibration unit choosing.

5.3 Use UNIT key to choose the calibration unit kg or lb (the corresponding unit indicator will be lighted on), use TARE key to confirm the unit and go to the next step.

5.4 The scale displays "CALP3-0" (this means that the scale is ready to calibrate the zero point, please move away any weight on the scale). When scale is stable, press TARE key to confirm the zero point calibration and go to the next step automatically., or use ON/OFF key to exit the mode.

5.5 The scale displays "CALP3- 1" (this means the scale is ready to calibrate the first calibration point). Place 1/3 FS weights on the center of the scale platter, press TARE to confirm the standard weight calibration after the scale is stable and go to the next step automatically. Or press ZERO key to skip this step and go to next calibration point. Use ON/OFF key to exit the calibration mode.

5.6 The scale displays "CALP3-2" (this means the scale is ready to calibrate the second calibration point). Place 2/3FS weights on the center of the scale platter, press TARE to confirm the standard weight calibration after the scale is stable and go to the next step automatically. Or press ZERO key to skip this step and go to next calibration point. Use ON/OFF key to exit the calibration mode.

5.7 The scale displays "CALP3-3" (this means the scale is ready to calibrate the third calibration point). Place a standard weight (Full capacity) on the center of the scale platter, press TARE to confirm the standard weight calibration after the scale is stable and go to the next step automatically. Or use ON/OFF key to exit the calibration mode.

5.8 The scale displays "CALP3-0" (this means the scale will do a zero point calibration again), please move away any weight on the scale). When scale is stable, press TARE key to confirm the zero point calibration, or use ON/OFF key to exit the mode.

6. Parameter Setup Mode

6.1 In normal weighing mode, press ON/OFF and UNIT key until scale displays "SAVEPxx" to enter into parameter setup mode.

6.2 "SAVEPxx" means power saving mode. Use UNIT or ZERO key to amend the value for xx (xx=00-90, 00 stands for disabling power saving function, default setting=30), press TARE key to confirm and go to next step.

6.3 Then scale displays "AoFFt xx", it means entering auto power off setting mode. Use UNIT or ZERO key to amend the value for xx (xx=00-15, meaning after xx minutes, the scale will automatically power off; 00 stands for disabling this function, default=03), press TARE key to confirm and go to next step.

6.4 Then scale displays "LEdbrn x", it means entering LED brightness setting mode. Use UNIT or ZERO key to amend the value for x (x=1-7, default=3), press TARE key to confirm and return to self-examination mode.

6.5 Press ON/OFF key to exit and return to self-examination mode.

7. Display A/D code and working voltage

7.1 In normal working mode, press and hold ON/OFF and ZERO key until scale displays "CodE", then displays inner code.

7.2 Press UNIT key to choose the displaying content. "U.C xxxx" means the inner code of the voltage; "UoL.xx" means working voltage, x.x V standing for the inner working voltage; "xxxxxx" means the inner code for a weight.

7.3 Press ON/OFF key to exit and return to self-examination status.

7.4 Press TARE key to tare the weight inner code when in observing weight inner code mode.

8. Display symbol meaning

- "------": Weight is too large.
- _ _ _ _ _ _: Weight is too low.
- 0"- - - - -: Exceed zero range
- 0_ _ _ _: Less than zero range
- CALErLo: Calibration error
- CAPEr00: Big difference between 1st zero calibration point and 2nd calibration zero point
- CALP3-0/ 1/2/3: Zero point calibration, 1/3 FS calibration point, 2/3 FS calibration point, 3/3FS calibration point

9. Troubleshooting

9.1 Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
------	Weight reading exceeds the overload limit or the weight value cannot be displayed in the current unit of measure.	Reduce load on scale until weight value can be displayed, or use an alternate unit of measure.
0"- - - - -	Weight exceeds Power On Zero limit (+10%), or over ZERO key range (+2%).	Make sure scale platform is empty. Power off scale and power on again. Perform zero calibration.
0_ _ _ _	Weight is below Power On Zero limit (-10%) or below ZERO key range (-2%).	Install platform on scale. Perform zero calibration.
CALErLo	Calibration error	Load correct weight onto platform, or service is required.
Will not power on	Power cord not plugged in or properly connected. Power outlet not supplying electricity. Battery discharged. Other failure.	Check power cord connections. Make sure power cord is plugged into the power outlet. Check power source. Replace batteries. Or service required.
Unable to zero the display or will not zero when turned on	Load on scale exceeds allowable limits. Load on scale is not stable. Load cell damage.	Remove load on scale. Wait for load to become stable. Service required.
Lo.bAt is shown	Battery is discharged	Charge battery

9.2 Battery and Charging

Power is supplied by an internal rechargeable 6V lead-acid battery (4Ah). When "Lo.bAt" is displayed, the battery must be recharged. Plug in the AC power adapter to recharge the battery. The scale may continue to be used on AC power during charging. Full charging time is approximately 10-12 hours.

Battery life and recharge time will vary with use. Over time, the operating time per each full charge will degrade. If the operating time is no longer acceptable, the battery must be replaced. When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation.