



**G30**

**Weighing Scales Series  
Operation Manual (Full Version)**



PLEASE READ THIS MANUAL VERY CAREFULLY  
BEFORE OPERATING THIS INSTRUMENT

*Specifications subject to change without prior notice*



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## **1. Reminders**

### **1.1 Metrological Legislation**

Local metrological legislation may limit access to some settings of this instrument. Do not attempt to change any parameters under internal function number F60 ~ F99. Contact your dealer for installation and technical assistance.

### **1.2 Seal & Serial Number**

This instrument is legal for trade only when sealed and bearing a serial number. Do not attempt to break the seal or serial number affixed to this instrument. Warranty service voided if the seal or data plate of this instrument is damaged or removed. Always contact your dealer for after-sales service.

### **1.3 Warm-Up Time**

- a. Allow a warm-up period of not less than 60 seconds before calibration and usage. The higher the resolution of the setting, the longer the warm-up period is required.
- b. In most cases, 120 seconds is a safe warm-up period for all applications. This warm-up period is needed to **energize** all components and allow them to reach a stable state.
- c. The internal count value is stable when the internal AD count varies by less than 3 counts within 2 seconds.
- d. To read the internal AD count value, enter internal function F1. The internal AD count value may go up continuously when the instrument is not yet fully warmed up.

### **1.4 Placing this Instrument**

Always place this instrument on a solid and level surface. Avoid using this instrument in any environment where excessive wind flow, vibration, and extreme temperature changes exist. Contact your dealer if in doubt.

### **1.5 Cautions**

- a. This instrument is not an explosion-proof device.
- b. This instrument is not a waterproof device.
- c. Do not open this instrument. There are no user-serviceable parts inside.
- d. Do not place this instrument in locations where shock, excessive vibration, or extreme temperatures (before or after installation) exist.

### **1.6 Support & Service**

Always contact your dealer for product information, after-sales service, and questions when in doubt.

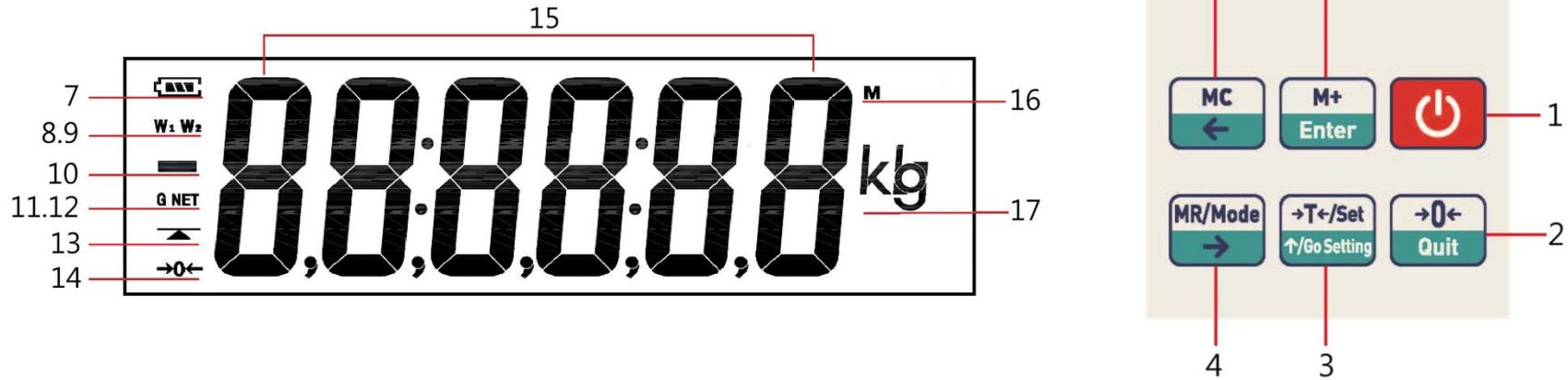
## 2. Specifications

Model	Capacity (Max)	Readability (d)	n <sub>max</sub>
G30-1500B	1500g	0.1g	15,000
G30-3000B	3000g	0.2g	15,000
G30-7500B	7500g	0.5g	15,000
G30-15KB	15kg	1g	15,000
G30-3000L	3000g	0.1g	30,000
G30-6000L	6000g	0.2g	30,000
G30-15KL	15kg	0.5g	30,000
G30-3000III*	1500g/3000g	0.5g/1g	3,000/3,000
G30-6000III*	3000g/6000g	1g/2g	3,000/3,000
G30-15KIII*	6kg/15kg	2g/5g	3,000/3,000
G30-30KIII*	15kg/30kg	5g/10g	3,000/3,000
Platter	210 x 250mm ABS Platter with Stainless Steel Insert		
Weight Units	kg/g/lb		
Digits & Indications	<ul style="list-style-type: none"> <li>• 6 x 31mm HTN Bold Type Wide Angle LCD Numeric Digits</li> <li>• Gross, Net, Stable, Zero, Weight Unit, Weighing Rechargeable Battery Level, Memory Indicators</li> </ul>		
Max. Tare Range	-Max (Subtractive Tare)		
Power Source	<ul style="list-style-type: none"> <li>• Built-in Rechargeable Battery = 6V, 4AH</li> <li>• External Power Adaptor = DC 12V, 1A</li> </ul>		
Accessories	Built-in Rechargeable Battery, Universal Power Adaptor, Dust Cover		
Operating Environment	-10 ~ 40°C. Non-condensed. R.H. ≤ 85%		

***In the interest of improvement, specifications may change prior to notice***

\* = OIML Legal for Trade. Dual Interval

### 3. Panel & Keys



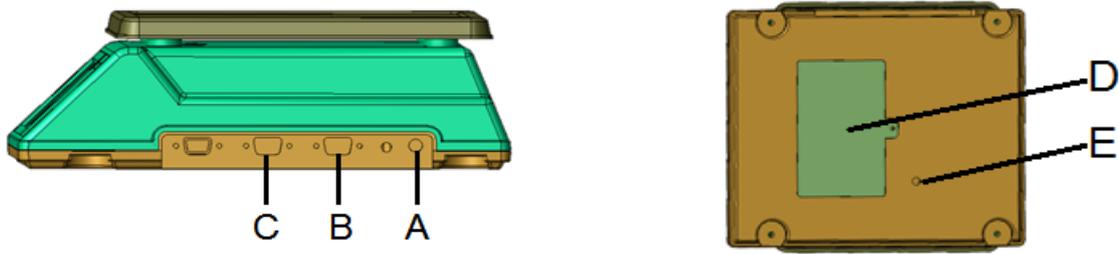
#### 3.1 Keyboard Description

No.	Description	Function Description	
		Normal Operation	Internal Function Setting
1	[On/Off]	<ul style="list-style-type: none"> <li>Power the instrument on or off</li> </ul>	Quit without saving and power off
2	[Zero]	<ul style="list-style-type: none"> <li>Set displayed weight to zero when unloaded</li> </ul>	Quit without saving
3	[Tare/Set]	<ul style="list-style-type: none"> <li>Short press = Tare off the weight of a container</li> <li>Long press = Enter internal function table</li> </ul>	<ul style="list-style-type: none"> <li>Access internal function settings (F1 ~ F99) during power-on countdown</li> <li>Increase value</li> </ul>
4	[MR/Mode]	<ul style="list-style-type: none"> <li>Short press = Recall total stored transactions</li> <li>Long press = Trigger the key function assigned to F30</li> </ul>	Go to the next parameter or internal function number
5	[MC]	Memory clear	Go to the previous parameter or internal function number
6	[M+]	Accumulate the current transaction to memory	Enter, save, and return

### 3.2 Display Panel Description

No.	Name	Description
7	<b>Battery Level Indicator</b>	Visible to show remaining battery of the built-in rechargeable battery.
8	<b>Max<sub>1</sub> Indicator</b>	(When under dual weighing range/interval mode) Visible when instrument is operating at the first weighing range ( $W_1$ ).
9	<b>Max<sub>2</sub> Indicator</b>	(When under dual weighing range/interval mode) Visible when instrument is operating in the second weighing range ( $W_2$ ).
10	<b>Minus Indicator</b>	Visible when a negative value is being displayed.
11	<b>Gross Indicator</b>	Visible when the gross result is being displayed.
12	<b>Net Indicator</b>	Visible when the net result is being displayed.
13	<b>Stable Indicator</b>	Visible when weight detected is stable.
14	<b>Zero Indicator</b>	Visible when instrument is at zero weight status.
15	<b>Numeric &amp; Alphabetical Info Panel</b>	Numeric value and alphabetical Info are displayed here.
16	<b>M+ Indicator</b>	Visible when memory contains accumulated data.
17	<b>Weight Unit Indicator</b>	kg = kilogram; g = gram lb = pound.

## 4. Connection Points



No.	Name	Description
A	Power Adaptor Input	Power adaptor (DC12V, 1A center positive) is plugged here. Do not plug in any other power adaptor than the one which comes with this instrument.
B	Reserved	
C	Reserved	
D	Battery Compartment	Rechargeable battery underneath
E	Under Pan Weighing Access Hole	Access hole for under pan weighing hook, thread size = M4 x 0.7.

## 5. Power Adaptor, Built-In Batteries & Recharging

### 5.1 Power Adaptor

Always use the power adaptor supplied with this instrument to avoid irreparable damage.

### 5.2 Before Plugging in Power Adaptor to Electricity Grid

Check if the input voltage marked on the power adaptor matches the local electricity grid. If not, do not plug in and contact your dealer immediately.

### 5.3 Before First Time Use

To ensure the best battery performance, recharge the built-in battery for at least 8 hours before first-time use.

### 5.5 Battery Voltage & Battery-Operation Application

Battery voltage is displayed by Battery Level Indicator and by internal function F2.

When the battery voltage level drops below 6.0, battery operation time may be less than 60 minutes (depends on actual system configuration).

### 5.6 Battery Low

- When **LoBat** message appears during power-on countdown process; it means battery level is at extremely low level. Recharge battery immediately.
- During operation status, this instrument will power off automatically when the battery level is extremely low. If this is the case, do not attempt to power on this instrument. Recharge this instrument immediately. Failure to do so may cause irreparable damage.

## 6. Internal Function Settings

### 6.1 About Internal Function Table

To enable this instrument to give the best performance under various application requirements and demands, a set of internal functions is built-in.

These internal functions are divided into 2 categories: -

- User accessible functions (F1 ~ F30 of below table) do not request any password to access.
- Other internal functions are not for access to end-users and may need a password to access. **Do not attempt to access or alter any parameters without authorization to avoid system malfunction.**

### 6.2 How to Enter & Select Internal Function<sup>1</sup>

1. In weighing mode, press and hold **[Tare/Set]**.
2. Instrument displays F1 and is now in internal function mode.
3. Press **[MR/Mode]** or **[MC]** to select the preferred internal function number and press **[M+]** to enter.

### 6.3 Key Function during Internal Function Setting & Operation Mode

Refer to paragraph 3.1 for more information.

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<sup>1</sup> To fulfil the metrology law of certain countries, accessing to internal function by **[MR/Mode]** key may be disabled. Contact your dealer for more information.

#### 6.4. User Accessible Functions

Function No.	Description	Parameters / Note Default = **					
F1	Internal Analogue to Digital (ad) Value	Press <b>[Tare/Set]</b> to set offset value to zero when unloaded. Then add load on the platform to observe the span value of load applied. <ul style="list-style-type: none"> <li>When ADC value exceeds 1 million. W<sub>1</sub> sign will appear. Actual ADC is = 1 million plus the ADC value being displayed.</li> <li>When ADC value exceeds 2 million. W<sub>2</sub> sign will appear. Actual ADC is = 2 million plus the ADC value being displayed.</li> <li>When ADC value exceeds 3 million. Both W<sub>1</sub> &amp; W<sub>2</sub> sign will appear. Actual ADC is = 3 million plus the ADC value being displayed.</li> </ul>					
F2	All Segment Check	All display segments and backlight colors will be lit on. Check if any segments or backlight colors are missing.					
F3	Capacity, Division & Default Weight Unit	Display basic metrology characteristics (capacity, division and weight unit). Value displayed = Max + 1e					
F6	System Initialization (Set F7~F30 to Default)	<b>** No</b>			Yes		
	If <b>YES</b> is selected, press <b>[Tare/Set]</b> when “ <b>SURE ?</b> ” is displayed. Instrument shows Done when initialization is completed.						
F7	Auto Power Off Time (Minute)	Off	1	3	<b>** 5</b>	10	20
	<ul style="list-style-type: none"> <li>To change setting, select the preferred parameter and then press <b>[M+]</b>.</li> <li>Auto power off function will be disabled when an energized power adaptor is plugged in.</li> </ul>						
F8	Backlight Brightness	Brightness (01 ~ 99) <b>** Default = 60</b>					
	<ul style="list-style-type: none"> <li>To change setting, enter value through keyboard and then press <b>[M+]</b>.</li> </ul>						
F9	Weight Unit Enable / Disable	kg <b>(** On/Off)</b>	g <b>(On/** Off)</b>		lb <b>(On/** Off)</b>		
	To enable/disable a specific weight: - <ol style="list-style-type: none"> <li>Set first weight unit kg. Press <b>[MC]</b> or <b>[MR]</b> until the preferred parameter for the weight unit is displayed.</li> </ol>						

	2. Press <b>[M+]</b> to confirm and continue. 3. Then repeat the above procedure for g and then lb until instrument returns to F9.									
<b>F10</b>	Filter Strength	1	2	3	4	<b>** 5</b>	6	7	8	9
	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Set Filter Strength first, then followed by Anti-Vibration Level, and then AD Conversion Speed.</li> <li>9 filter strength parameters (1 ~ 9) are available:             <ul style="list-style-type: none"> <li>1 (strongest filter) for bad working environment where vibration, wind flow etc. affect stable reading,</li> <li>5 for normal environment,</li> <li>9 (least filter) for good working environment where wind and vibration do not affect the stable reading.</li> </ul> </li> <li>5 Anti-vibration levels (Range 1 ~ 5) are available. The higher the Anti-Vibration level set, the longer the time needed before a stable result is obtained.             <ul style="list-style-type: none"> <li><b>1</b> (least) for good working environment where vibration does not exist.</li> <li>5 (strongest) for bad working environment where serious vibration exists and stable readings are not easy to obtain.</li> </ul> </li> <li>4 AD conversion speed parameters (Rate 15 ~ 120 times per second) are available:             <ul style="list-style-type: none"> <li><b>15</b> times per second (slow speed). Good for high-resolution applications.</li> <li>30 times per second (medium speed). Recommended maximum resolution = 15,000 division</li> <li>60 times per second (high speed). Recommended maximum resolution = 7,500 division</li> <li>120 times per second (ultra-high speed). Recommended maximum resolution = 3,000 division</li> </ul> </li> </ul> <p>To set filter strength and AD conversion speed:</p> <ol style="list-style-type: none"> <li>Press <b>[MR]</b> or <b>[MC]</b> to select filter strength. At this point:             <ol style="list-style-type: none"> <li>Press <b>[MR]</b> or <b>[MC]</b> to select the preferred filter strength, then <b>[M+]</b> to confirm, or</li> <li>Press <b>[Zero]</b> to quit.</li> </ol> </li> <li>Instrument displays the AD conversion speed setting page. At this point:             <ol style="list-style-type: none"> <li>Press <b>[MR]</b> or <b>[MC]</b> to select the preferred AD conversion speed, then <b>[M+]</b> to confirm, or</li> <li>Press <b>[Zero]</b> to quit. If any parameter is changed, instrument will restart automatically.</li> </ol> </li> </ol>									
<b>F12</b>	Auto Tare Function	<b>** Off</b>			On			Contin		
	<p><b>Notes: -</b></p> <ul style="list-style-type: none"> <li><b>Off</b> = Auto Tare Function disable.</li> <li><b>On</b> = Only the first table weight applied will be tared off. Minimum tare load <math>\geq 2d</math>.</li> <li><b>Contin</b> = All stable weight applied will be tared off after the selected delay time. Minimum tare load <math>\geq 10d</math>.</li> </ul>									

	<ul style="list-style-type: none"> <li>○ If Contin is set, select also delay time (0.0 ~ 9.9 second). Delay time is the duration from a stable weight is detected until it is automatically tare off.</li> <li>○ Delay time is displayed. Input the preferred delay time and press <b>[M+]</b> to save.</li> </ul>			
<b>F13</b>	Repetitive Tare Function	OFF	<b>** On</b>	
	If F12 is set = <b>Contin</b> , Repetitive Tare setting “Off” will be surpassed.			
<b>F14</b>	Buzzer	Kb (keypad buzzer) <b>(**On/Off)</b>	St (System buzzer) <b>(**On/Off)</b>	
	<p>To enable and disable a specific function buzzer:</p> <ol style="list-style-type: none"> <li>1. Press <b>[MR]</b> or <b>[MC]</b> until the preferred parameter is displayed.</li> <li>2. Press <b>[M+]</b> to save and go to the next function buzzer.</li> <li>3. Repeat the above procedures until instrument returns to F14.</li> </ol>			
<b>F16</b>	Accumulation Method	<b>** Off</b> (Accumulation Disabled)	Manual (Manual Accumulation)	Auto (Auto Accumulation)
	Refer to paragraph 8 for detail.			
<b>F29</b>	<p>Read Calibration and parameter set counts.</p> <ul style="list-style-type: none"> <li>• <b>O</b> (Parameter set count): shows total times that the important parameters (F80~F88) have been altered.</li> <li>• <b>C</b> (Calibration count): shows total times of calibration.</li> </ul>			
<b>F30</b>	Mode Key Function Assignment	<b>**Off</b>	Unit	Animal
				E10

## 7. Basic Operation

### 7.1 Power Instrument On & Off

- To power on: - press **[On/Off]** and then release.
- To power off: - press **[On/Off]** and then release.

### 7.2 Power on Countdown Process

After powered on, instrument goes through the power on countdown process and displays the following information.

1. Software number.
2. Software version number in the format of U XXX.
3. Display all numeric segments and indications.
4. Calibration count value
5. Parameter set count value.
6. Capacity & division in the format of Max plus 1 division.
7. At this point, instrument is in Weighing mode and is ready for operation.

### 7.3 Warm-Up Time

Allow a warm-up period of not less than 60 seconds after power-on before using.

### 7.4 Loading & Weighing

- Always place an object gently. Excessive force/shock applied may cause irreparable damage to the weight sensor.
- It is a good practice to remove all loads after weighing. It will prolong the life of the weight sensor.

### 7.5 Manual Zero

If zero weight cannot be obtained when unloaded, press **[Zero]**. **Zero Indicator** lights up when instrument is at zero status.

### 7.6 Tare Functions

#### 7.6.1 Manual & automatic tare

This instrument is equipped with the following tare functions. These functions can be selected in F12.

- a. Off: - Manual Tare
- b. On (Auto tare): - Instrument assumes the first stable weight ( $\geq 10d$  or  $20d_1$ ) applied is a container and tare off its weight. When the container is removed and the gross weight is zero, tare effect will be cancelled.
- c. Contin (continuous auto tare): - All stable weight ( $\geq 20d$  or  $20d_1$ ) applied will be tared off. When all loads are removed and the gross weight is returned to zero, the tare effect will be cancelled.

**Notes: -**

- If Contin is selected, instrument will prompt for delay time (0.0 ~ 9.9 second).
- Delay time is the time duration from when a stable weight is detected until it is tared off.
- Input the preferred delay time and press **[M+]** to save.

### 7.6.2 Repetitive/multiple tare

This instrument is equipped with multiple tare operation capability. Settings: -

- Set F13 = On to allow multiple tare operation. If it is the case, instrument will permit multiple tare operation, and tare effect can only be cancelled when there is no load.
- Set F13 = Off to disable multiple tare operation. If this is the case, the tare effect can only be canceled when the container is removed, and the gross weight is zero.

### 7.7 Configurable Mode Key

The Mode key offers 4 user-configurable function modes as below table.

Parameter	Description
Off	Mode key is disabled and pressing it has no effect.
Unit	Shifts among different weighing units: kg, g, and lb. Refer to paragraph 7.8 for detail.
Animal	Activates the Animal Weighing Function, stabilizing the display by averaging weight fluctuations when weighing live animals.
E10	(When F68 is set to OIML or NTEP) Enables Extended Display, temporarily (5 seconds) increasing the weighing resolution to 10 times finer.

Refer to paragraph 6.2 and go to internal function F30 for setting procedures.

### 7.8 Select the Preferred Weight Unit<sup>2 3</sup>

This instrument supports kg, g, and lb. The weight unit selected before powering off will be retained when the instrument is powered on again. Contact your dealer if in doubt.

Disregarding the setting of F9, weight unit gram (g) is available only when 3 or 4 decimal places (0.000 or 0.0000) is selected in F81. Contact your dealer for more details.

To select the preferred weight unit, press and hold **[MR/Mode]** until the preferred weight unit appears.

### 7.9 Backlight

This instrument is equipped with backlight.

When instrument is powered by built-in rechargeable battery: - Backlight will turn to minimum when weight remains stable/unchanged for 5 seconds. Stable for backlight means  $\pm 5$  division variation within one second.  
When this instrument is powered by adaptor: - Backlight will remain on.

### 7.10 Extended Display Mode<sup>4 5</sup>

When F68 is set to OIML or NTEP, press and hold **[MR/Mode]** to temporarily (5 seconds) increase the weighing resolution to 10 times finer. The display keeps flashing when instrument is displaying the extended results.

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2 Changing weight unit during operation will clear all accumulated weight data from memory.

3 Set parameter F30 to "Unit" to enable the Mode Key for weight unit switching.

4 When F68 = OIML or NTEP.

5 Set parameter F30 to "E10" to enable the Mode Key for Extended Display function.

### 7.11 Auto Power Saving & Auto Power-off Time

This instrument is equipped with auto power saving and auto power-off time functions. Refer to **F7** in paragraph **6.4** for more information.

## 8. Memory & Data Related Operation

### 8.1 Memory Accumulation

There are 3 types of Memory Accumulation: -

1. Off = Accumulation disabled
2. Auto = Auto accumulation
3. Manual = Manual accumulation

Refer to paragraph **6.2** and go to internal function F16 for setting procedures.

Maximum accumulation limit is = 8 digits (e.g. 99999999) plus decimal (if any). **Err 28** appears when the maximum accumulation limit is exceeded.

#### 8.1.1 Manual accumulation<sup>6</sup>

Under the Manual Accumulation mode, press **[M+]** to accumulate the current weight to memory.

#### 8.1.2 Automatic accumulation<sup>7</sup>

Under the auto accumulation mode, corresponding results will be accumulated once the weight detected is stable or when the continuous auto tare function as set in F12. Refer to paragraph **7.6** for detail.

#### 8.1.3 When data is accumulated to memory<sup>8</sup>

1. When a result is accumulated to memory, this instrument displays “n\_\_\_\_x”. M+ Indicator appears to indicate that memory contains stored data. “x” means the total number of transactions accumulated to memory.
2. This instrument returns to normal display status after 0.5 second.

#### 8.1.4 Memory recall & clearance

Accumulation data will be stored in memory and will not be erased by the normal power-off process (by pressing the **[On/Off]** key).

Instrument will erase all accumulated data when: -

- a. Weight unit is changed, or
- b. Working mode is changed.

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<sup>6</sup> Refer to paragraph **8** for setting details.

<sup>7</sup> Refer to paragraph **8** for setting details.

<sup>8</sup> When an UART is set to mode Auto1~3, unstable result or result which is less than 20d (20d1 for dual weighing range/interval mode) will not be accumulated to memory.

Follow the procedures below to recall and clear accumulation data manually.

1. Press **[MR/Mode]** to recall total accumulated weight.
2. Instrument flashes between “**A\_\_\_\_\_Y**” (**Y** means number of transactions accumulated) and total accumulated weight.
3. At this point: -
  - a. Press **[Zero]** to quit, or
  - b. Press **[MC]** to clear memory. After **[MC]** is pressed, instrument displays Clear, and M+ Indicator disappears to indicate no data is stored in memory.

## 9. Weighing Mode

1. Refer to paragraph **7.8** on how to select the desired weight unit.
2. If zero weight cannot be obtained when unloaded, press **[Zero]**. After **[Zero]** is pressed, the **Zero Indicator** will appear<sup>9</sup>.
3. Always place an object onto the platform gently. Excessive force/shock applied to platform may cause irreparable damage to the weight sensor inside the platform.
4. The weight of the object is displayed automatically.
5. It is a good practice to remove all loads from platform after weighing. It will prolong the life of the weight sensor.

## 10. Animal Weighing Mode<sup>10 11</sup>

### 10.1 Description of Animal Weighing Mode

Animal Weighing is used to weigh live animals.

### 10.2 Animal Weighing Mode Settings

1. Press and hold **[MR/Mode]** to go to Animal Weighing mode.
2. Press and hold **[Tare/Set]** to select filter speed. 5 parameters (FLT 1 ~ 5) are available: -
  - FLt 1 = Fastest speed with the lowest accuracy.
  - FLt 3 = Normal speed. Recommended setting for most animal weighing applications.
  - FLt 5 = Slowest speed with the highest accuracy.
3. Press **[M+]** to save and to select weight release variation percentage. 10 parameters are available (Off ~ 20%).
  - rE oFF = auto-release disabled except all loads are removed.
  - rE 2 = auto-release when weight varies  $\geq 2\%$  of rate capacity (or W1 for dual weighing range/interval mode) or when all loads are removed.
  - rE 20 = auto-release when weight varies  $\geq 20\%$  of rate capacity (or W1 for dual weighing range/interval mode) or when all loads are removed.
4. Press **[MC]** key to select the preferred weight release variation and press **[M+]** to save.
5. Instrument is now ready for animal weighing application.

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9 Maximum weight value can be zero depends on F65 setting. Contact your dealer for detail.

10 Set parameter F30 to “Animal” to enable the Mode Key for Animal Weighing function

11 Animal Weighing mode will not operate when weight is less than 20d (or 20d1 for dual weighing range/interval).

### 10.3 Start Using Animal Weighing

1. Place the animal on the platform.
2. Instrument will calculate and hold the weight of an animal. The result being held flashes.
3. In case more animals have to be weighed in the same transaction, get other animals on. An updated weight will be calculated, held and displayed<sup>12</sup> as above step 2.
4. To refresh the weight reading manually, press **[MC]**.

## 11. Built-in Battery & Recharging

### 11.1 Battery Operation Time

The Battery Power/Level Indicator displays the remaining battery power of the built-in rechargeable battery.

### 11.2 Symbols & Remaining Power

-  Full Battery:  $\geq 6.3V$ .
-  2 Blocks:  $\geq 6.0V$  (Battery level~75%).
-  1 Block:  $\geq 5.7V$  (Battery level~20%).
-  Frame only:  $< 5.7V$  (Battery level is less than 15%).

### 11.3 Battery Recharge

When  appears, it means that the built-in rechargeable battery is at low voltage status. It is recommended to recharge as soon as possible.

To protect the built-in rechargeable battery, this instrument will be powered off automatically when battery is at an extremely low level. If this is the case, do not attempt to power this instrument on. Recharge this instrument immediately. Failure to do so may cause irreparable damage to the built-in rechargeable battery.

Battery charging status is shown by the Battery Power/Level Indicator.

- Progressing: - Recharging in process.
- Flashing  : - Recharge completed.

Battery recharging is possible during operation. Overcharge protection circuit is inside to prevent battery damage from overcharge.

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12 Provide that extra weight added/removed fulfills the weight release variation value listed on step 5 of **14.2**.

## 12. System & Error Codes

Code	Description
<b>Err 3</b>	Exceed manual zero
<b>Err 4</b>	Offset out of range/unstable during power on (5 minutes for OIML and NTEP mode)
<b>Err 5</b>	Load cell not detected
<b>Err 6</b>	Tare operation error
<b>Err 13</b>	Exceed maximum power on zero
<b>Err 19</b>	Capacity or division setting error (Division set is higher than 10000d)
<b>Err 22</b>	Manual Zero and Tare stability error
<b>Err 23</b>	Capacity setting error, Capacity 1 > Capacity 2
<b>Err 24</b>	Division setting error, e1 > e2
<b>Err 25</b>	Span gain is too low
<b>Err 26</b>	Not able to obtain stable status for longer than 10 sec
<b>Err 27</b>	<ul style="list-style-type: none"> <li>The calculated value per e of Cal 2 varies by more than 1% as of Cal 1, indicating a load cell problem.</li> <li>The mass value of Cal 2 is less than 150% of Cal 1</li> </ul>
<b>Err 28</b>	The maximum accumulation limit is exceeded
<b>--oL--</b>	Overload (Gross weight is more than Max plus 9d)
<b>HALT</b>	Major system error detected. Power off instrument and remove power adaptor immediately. Then check load cell connection and system power status.
<b>UndEr</b>	Negative Weight value exceeds display range
<b>Reboot</b>	Important parameters have been changed. Power off and then power on instrument again to reboot.
<b>-----</b>	Negative Tare value exceeds display range

## 13. Daily Care & Maintenance

1. Clean this instrument with a soft, damp cloth. If necessary, use a mild detergent in water.
2. Do not use any harsh, abrasive material, acetone, volatile solvent, thinner, or alcohol for cleaning.
3. Verify the accuracy of this instrument periodically. Re-calibrate if necessary. In some countries, calibration requires an authorized/qualified agent. Contact your dealer for more information.
4. Store this instrument in a dry and clean place.
5. Recharge the battery before storage and every 4 months during long-term storage.



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