INSTALLATION

Environment

The scale should always be used in an environment which is free from excessive air currents, corrosives vibration, and temperature or humidity extremes. These factors will affect displayed weight readings.

DO NOT install the scale:

- Next to open windows or doors causing drafts or rapid temperature changes.
- Near air conditioning or heat vents.
- Near vibrating, rotating or reciprocating equipment.
- Near magnetic fields or equipment that generates magnetic fields.
- On an un-level work surface.

Leveling the Scale

Each scale is equipped with a level indicator and four adjustable leveling feet. Adjust the leveling feet until the bubble appears in the center circle of the indicator.

Pan and Pan support

LAW

- 1. Put the X-type pan support (with rubber cushion upward) on top of the supporting plate which appears in the central hole of the plastic case.
- 2. Screw the two hexagonal screws through the two holes in the center of the pan support into the supporting plate, then put the pan on top of the pan support to complete installation.

LPW

- 1. Put the aluminum cylinder on the supporting plate which appears in the central hole of the plastic case.
- Put the X-type pan support on top of the cylinder (the side with rubber cushion upward), screw the two hexagonal screws through the pan support and cylinder then to the supporting plate. Then put on the pan to complete installation.

!!! Unlock Load Cell Protection !!!

An L-type aluminum plate is fixed by a hexagonal screw from the bottom plate into load cell for protecting against abnormal force which probably will hit the scale during transportation.

Loose the screw indicated by an instruction label on the bottom plate with the accompanied larger screw driver and then remove the L-type plate and screw.

NOTE:

Keep the L-type plate and hexagonal screw in safe place and remember to fix them into load cell whenever the scale is to be delivered.

TURN ON SCALE

With no load on the pan, turn on the scale by pressing the power switch on the left side (for LPW) or left-front side of the bottom plate (for LAW). Scale will show the whole LCD display with backlight and then start to count down from nine to zero and then will display the **software version**. Finally, scale will be stable at zero position and ready for use.

BATTERY STATUS INDICATION

These scales can operate continuously by connecting directly to AC power or operate **120 hours** by fully-charged rechargeable battery.

When battery voltage is low, a battery sign will start blinking to remind user to recharge battery. Scale will be automatically turned off about 8 hours after the battery sign starts blinking in order to avoid inaccurate measurement or calculation. Scale can operate properly before power is automatically turned off.

RECHARGING BATTERY

Recharging battery when the battery sign is blinking. When battery is being charged, **LED** indicated by the word **CHARGE** on the right of the front panel will be **RED**, the **LED** will become **GREEN** when scale has been charged to full capacity (charging time is about **8 hours**).

It could be dangerous by using improper battery or wrong connection of battery.

POWER ON SETUP

Power On Setup function is provided to setup Capacity - Resolution, Operation Mode Selection, Power – on Operation Mode, Digital Filtering, Auto Power - off, Backlight and Zero Band.

OPERATION TIPS:

- 1. Press **MC/SE**T to go to next setup when current setup is completed.
- 2. Press **ZERO** at any stage to go to normal weighing mode.

CAPACITY – RESOLUTION SETUP

- 1. Press MC/SET again (continue from the end of CALIBRATION), display will show current capacity - resolution setup.
- 2. Press M+/MR to choose the desired option, each model has four options as listed below:

LPW-3015

Displayed Number	3000.2	1500.1	3000.5	1500.2
Capacity x Resolution	3Kg x 0.2g	1.5Kg x .01g	3Kg x 0.5g	1.5Kg x 0.2g

LPW-3015, LAW-1260

Displayed Number	12001	6000.5	12002	6001
Capacity x Resolution	12Kg x 1g	6Kg x 0.5g	12Kg x 2g	6Kg x 1g

LAW-3015

Displayed Number	30002	15001	30005	15002
Capacity x Resolution	30Kg x 2g	15Kg x 1g	30Kg x 5g	15Kg x 2g

OPERATION MODE SELECTION

Enable those you want to use and disable the others. Those disabled will not be shown when you press **MODE** in normal operation.

1. Press **MC/SET**, display will show **on** on g. g 2. There are SIX operation modes available: tI.T (TAEL, Taiwan) kg (or g) **lb** (or oz) tl.H (TAEL, Hong Kong) pcs (piece counting) % (percentage) Press M+/MR to select the operation mode and then pores MODE to enable (ON) or disable (OFF) it.

POWER-ON OPERATION MODE

You can choose one of the enabled operation modes in last stage as the power-on operation mode. The selected mode will be the default mode each time when the scale is powered on (other enabled modes can be displayed in revolving order by pressing **MODE**).

- 1. Press MC/SET, display will show Init = g. Init = g
- Press M+/MR to choose the mode you want to set as power-on operation mode.

DIGITAL FILTERING

This function is provided for weighing vibrating objects or to prevent the scale from vibration which may affect stability of the scale.

- 1. Press MC/SET, display will show FiL. X. Fil. 1
- Press M+/MR to select the appropriate level for your application.
 Each level is a trade-off between reaction speed and effect to filter vibration. Larger number means slower reaction speed and better effect to filter vibration.
 - FiL. 1 Reaction is faster, effect to filter vibration is worse.
 - FiL. 2





- FiL. 4
- FiL. 8 Reaction is slower, effect to filter vibration is better.

AUTO POWER-OFF

When auto power-off time is enabled, scale will be automatically turned off when there has been no load on the pan (and scale is stable at zero position) for the setup time.

- 1. Press MC/SET, display will show Aut.XX. Aut.no
- 3. Press **M+/MR** to select auto power-off time as 5, 10, 30, 60 minutes or no (auto power-off disabled).

BACKLIGHT

Backlight is provided for getting better visibility when scale is used in dark environment.

lit.Aut Press MC/SET, display will show lit.XXX.

Press **M+/MR** to select backlight mode as Auto, OFF or ON.

Auto: Backlight will be ON whenever there is load (greater than 9 x display resolution) on the pan and OFF when there is no load.

Backlight will be always ON after scale is powered on. **OFF**: Backlight will be always OFF after scale is powered on.

ZERO BAND

Input the weight range where the balance will display zero. The weight range is in terms of number of display divisions set for both positive and negative directions.

ZEro.1 Press MC/SET, display will show ZEro.X.

Press **M+/MR** to choose the range where scale will show zero. Six options, 0, 1, 2, 3, 4, 5 are available.

Press ZERO to go to normal operation mode after the setup is completed.

FUNCTION OF KEYS

ZERO

Press **ZERO** to set scale to zero position if there is minor weight displayed.

TARE

To store the tare weight into memory and set display as zero.

1. Press **TARE** after the container is put on the pan. Container's weight will be stored in memory, display will show zero and the tare sign will be displayed (zero-stable sign will be turned off now)

Remove the container from the pan will cause the scale to display the
container's weight as a negative number. Press TARE will readjust the
scale to correct zero position and the zero-stable sign will be shown
again.

MODE

Select operation mode as required.

MC/SET

- Clear accumulated data stored in memory (refer to "ACCUMULATION").
- Set or clear checking eight (refer to "WEIGHING CHECI").
- Set sample size for ratio counting and percentage functions.

M+/MR

Add data to memory or recall data from memory (refer to "ACCUMULATION")

RATIO COUNTING

Ratio counting is a simplified way for piece counting by means of weight comparison with the preset reference weight of certain quantity.

- 1. Press **MODE** until **pcs** is displayed.
- Press MC/SET repeatedly to choose the quantity desired as reference weight.
 5 = 100pcs
 5 = 100pcs
 5 = 100pcs
- 3. Put on the corresponding quantity of objects, display will show **CAL pcs** shortly when the put objects are being memorized as reference weight, then the number of the preset quantity will be displayed.

NOTE:

If the put weight is too small to be as reference weight for accurate calculation, display will stay at S = xxx pcs. Please change existing setup to a smaller resolution or use another scale with smaller resolution for you application.

4. Put on the objects intended for piece counting, the calculated quantity will be displayed.

PERCENTAGE

This function can be used for user-defined weighing unit or material mixing.

- Press **MODE** until % is displayed.
- S = 100%Press MC/SET repeatedly to choose the percentage desired as reference weight. 25%, 50% and 100% are available for choice.
- 3. Put on the corresponding amount of material, display will show CAL % shortly when the put material is being memorized as reference weight, then the percentage of the preset amount will be displayed.

NOTE:

If the put weight is too small to be as reference weight for accurate calculation, display will stay at S = xxx %. Please change existing setup to a smaller resolution or use another scale with smaller resolution for you application.

4. Put on the material intended for percentage calculation, the calculated percentage will be displayed.

WEIGHING CHECK

Users can set a checking weight, when the weight on the pan is equal to or larger than the preset checking weight, alarm will sound repeated beeps.

Set Checking Weight

Put on the load intended to be as checking weight, then press **MC/SET**. The put load will be memorized as checking weight.

Clear Checking Weight

Press MC/SET when there is no load on the pan and scale is stable at zero position. The preset checking weight will be cleared from memory.

ACCUMULATION

Times and weight can be accumulated for future record.

ACCUMULATE DATA

Press **M+/MR** when the material for accumulation is on the pan, the displayed weight will be added into memory and the accumulated times will be increased by one. A circle sign " \bigcirc " will be shown in the upper-left corner of the display for **LAW** and a plus sign " + " will be shown in the upper-right corner of the display for **LPW** remind user that there is accumulated data stored in memory.

Up to 99 items can be added in one accumulation (if the total weight does not exceed the set capacity).

RECALL DATA

- Press M+/MR when display shows zero, the accumulated times will be shown as ACCXX, XX represents the accumulated times.
- Press M+/MR again, the accumulated weight will be displayed.
 You can press M+/MR again to go to normal weight mode or press
 MC/SET to clear the accumulated data and then go to normal weighing mode.

CLEAR DATA

Press **MC/SET** when the accumulated weight is displayed, the accumulated times and weight will be cleared.

The accumulated data **ONLY** can be deleted by pressing **MC/SET** when the accumulated weight is displayed. It can not be deleted under any other condition.

* RS-232 SERIAL PORT (OPTIONAL)

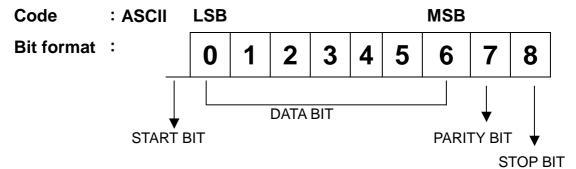
Output data

Baud rate : 2400 , 4800 or 9600 bps

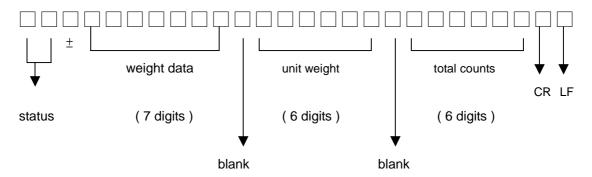
Data bit : 7

Parity bit : E(even)

Stop bit : 1



Data format:



(HEADER 1 : ST = stable , US = unstable)

(HEADER 2 : NT = net , GS = gross)

Example for output data: ST NT + 150.00 kg

US GS + 30 lb

Example of program in BASICA for executing data output:

10. OPEN "COM1:9600,E,7,1,RS,DS,LF" AS#1

20. INPUT#1,A\$, B\$, C\$, D\$

30. PRINT A\$, B\$, C\$, D\$

40. GOTO 20

50. END