

CE

JC-M Electronic Crane Scale



User's Manual

**Please read the manual carefully
before operating the scale.**



Contents

Table of Contents

1. Overview	1
2. Features & Specifications	1
3. Keypad Operation	2
4. General Scale Operations	3
5. Battery Charging	4
6. Precautions	4
7. Calibration Method	5
8. Functions Setup in Sub-Menu	6
9. Displays	7
10. Schematics	8

■ *Overview*

This series electronic crane scale combines reliable, advanced electrical hardware with good software. Using AT-89 series micro-processor and high speed, high precision A/D conversion technology, It has a specially designed jittering compensation circuitry so they can reach steady state quickly with strong anti-interference capability. This series of scales can be used for weighing application in commercial trade, mines, storage and transportations.

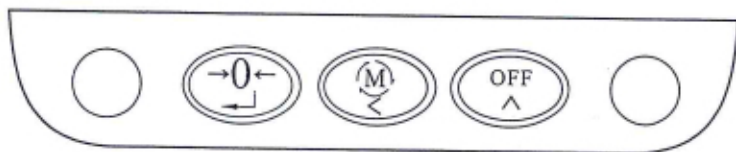
■ *Features & Specifications*

Max. Capacity (kg)	Min. Weight (kg)	Measured Division (kg)	Selectable Division (kg)
30	0.2	0.01	0.01
50	0.4	0.02	0.01
100	1.0	0.05	0.02
150	1.0	0.05	0.02
200	2.0	0.10	0.05
300	2.0	0.10	0.05

Time to Stable Reading	<10 Seconds
Maximum Safe Load	150% Full Scale
Display Specifications	5-digit 15 mm Super High Brightness 15 mm red LED display Or 5-digit 20 mm LCD display with back lighting
Hanging Fixture	360-degree swirl safe hook & shackle
Operating Temperature	-10°C ~ +40°C
Operating Humidity	30% ~ 90% RH
Low Voltage Indicator	Low voltage indicator turns on when the scale power supply voltage is low.
Power Supply	6V/3Ah lithium-iron battery
Auto Power Off	30 minutes after the scale inactive or at extreme low power supply
Scale casing	Microdiecasting aluminum alloy housing anti-magnetic and anti-interference
Keypad	Light touch keypad

■ Keypad operation

The keypad includes those keys such as OFF, DIVISION CONVERSION, ZERO.
(Note: the above keys can be used in sub-menu to set up kg-lb conversion, Beeper On/Off, Zeroing and indicator exchange, etc.)



1. [$\overset{\text{OFF}}{\wedge}$] : Under weighing condition, when this key is pressed to display "OFF". Press it again to turn off the power. The scale enters Stand-by mode. Press the main switch on the back to completely cut off the power.
2. [$\overset{\text{M}}{\div}$] : Press this key to change between Measured Division and Selectable Division.
3. [$\overset{-}{0}$] : Press this key to set the current display to zero. Under weighing mode of operation to turn on/off the display backlighting (applicable to the scale with LCD display)

■ *General Scale Operations*

1. Turn On the Scale

a) Press the ON/OFF switch located on the back of scale to turn on the scale. The scale's maximum weighing capacity is first shown, and then the scale goes through a self-check sequence.

b) After 0.0 is displayed and zeroing indicator (for LED display) or symbol (for LCD display) is lit, the scale is ready for weighing operation. (Note: it is recommended to allow scale 3~5 minutes of warm-up time before starting weighing operation).

2. Zeroing

a) In general, the scale shows "0.0kg" or "0.00kg" after it is turned on. In case the display is showing numerical value other than "0", press [$\overline{0}$] to set the display to "0".

b) For LCD display series crane scale, when "Aut" is set to "0" in the sub-menu, the backlighting is turned on after [$\overline{0}$] key is pressed and hold for more than 3 seconds. Press and hold [$\overline{0}$] key for another 3 seconds, the backlighting is turned off. If "Aut" in the sub-menu is set to "1", the backlighting is turn on automatically when there is load added to the scale and off after the weight being removed.

3. Weight Measurement

a) Once the load is suspended completely, the display shows the weight value of the load. When the "Stable" indicator is lit, weight value can be recorded.

b) In case there is tare such as cable, load the tare and press [$\overline{0}$] to zero the display to "0" kg. The weight value after this will be the net weight. This will not change until the tare change or the scale being turned off.

4. Turn Off the Scale

a) After weighing operation, the scale should be turned off. Press [\overline{OFF}] key twice to turn off the display.

B) Press the ON/OFF switch on the back of the scale case to shut off the power to the scale completely to prevent the leakage of the battery.

■ **Battery Charging**

1. lithium-iron battery (self contained)
 - a) connect the charger adaptor. And then connect the power for the adaptor.
 - b) When the lithium-iron battery is fully charged, the indicator on the charger adaptor is changed from color red (during the charging process) to green, indicating the completion of the charge process.
 - c) For optimized charging efficiency, it is recommended that the charging to be done with the scale turned Off. According to the lab testing results, with a fully charged 6V/3Ah lithium-iron battery, LED display series scale can operate over 36 hours and LCD display series scale 50 hours (without backlighting).
 - d) For optimal battery life time, it is recommended to charge the battery for every 12-hour of scale operation.

■ **Precautions**

1. For weighing operation, please load the scale with weight load exceeding the scale's maximum capacity.
2. Perform routine inspection and maintenance to ensure operation safety for these basic items:
 - a) Check for loose bolts.
 - b) Check hook and shackle for deformation, wearing and tearing.
 - c) Check other scale component for signs of metal fatigue.
 - d) Check for missing hook latch.
 - e) Avoid hitting, bumping the display window.

For problem "a" through "d", please stop using the scale and send it back to authorized Blue Arrow dealer or Blue Arrow for repair or replacement of problem parts.

■ Calibration Method

Please do not attempt to calibrate the scale without standard weight

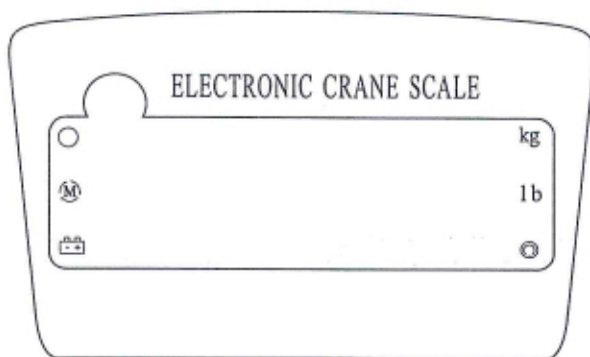
Step	Operation	Display	Remarks
1	Press & Hold [$\overset{-}{0}$]Key to power on	SPEN	Enter the calibration procedure. Scale should be with no load
2	Press [$\overset{-}{0}$]Key	SET 00000	Confirm zero point, when stable, display "00000"
3	Press [$\overset{OFF}{\wedge}$]Key to add Press [$\overset{M}{\circ}$]Key to move the digit left	150.00	Load the scale. The closer to full capacity the better. For example, 150kg
4	Press [$\overset{-}{0}$]Key	Hold	To store the result once the weighing becomes stable
5	-----	150.00	System goes back to weighing mode after several seconds.

■ Functions Setup in Sub-Menu

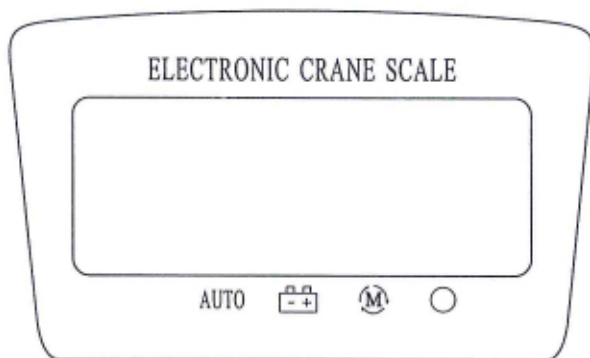
Function	Operation	Display	Remarks
Turn On/Off the weigh stable alarm beep	Press [$\overset{-}{\text{0}}$] key during the scale self-check sequence "9,....0" to enter the sub-menu	bEE 0	Enter the alarm ON/OFF mode. Press [$\overset{\text{OFF}}{\wedge}$] key to toggle the setup. "0" for Off, "1" to "ON"
Display unit change between kg and lb	Press [$\overset{-}{\text{0}}$] Key	CHt 0	Display unit change. Press [$\overset{\text{OFF}}{\wedge}$] to change "0" for kg and "1" for lb.
LCD backlighting	Press [$\overset{-}{\text{0}}$] Key (for LCD display models only)	Aut 0	Manual/Auto backlight setup. Press [$\overset{\text{OFF}}{\wedge}$] key to change. "0" for Manual, "1" for Auto
-----	Press [$\overset{-}{\text{0}}$] Key	----	Automatic re-start




■ *Displays*

LED Display



LCD Display



-  Low voltage indicator. When this symbol is lit, the system is at low power status.
 -  Exchange indicator. When this symbol is lit, indicating the display value is at selectable division status.
 -  Stable indicator. When this symbol is lit, the weighing process is stable and customer can take record of the weight.
- AUTO** Manual or Auto backlighting. When this symbol is lit, indicating the backlighting will be on during the weighing process.

■ Schematics

Figure 1(Unit:mm)

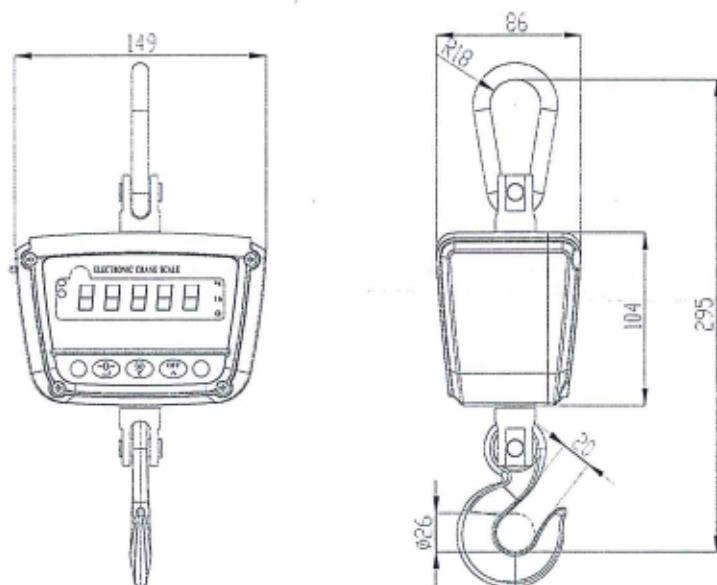


Figure 2(Unit:mm)

