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**8202
ELECTRONIC CRANE SCALE
INSTRUCTION MANUAL**

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VIDEO

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1.Introduction

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

2.Specifications

Max Capacity (kg)	Min Weight (kg)	Measured Division (kg)	Selectable Division (kg)
50	0.4	0.02	0.01
150	1.0	0.05	0.02
300	2.0	0.10	0.05
Time to Stable Reading	≤8 Seconds		
Maximum Safe Load	125% Full Scale		
Display Specifications	5-digit 15 mm Super High Brightness 15 mm red LED display		
Hanging Fixture	360-degree swirl safe hook and 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	Four(4)AA/1.5V Alkaline batteries		
Auto Power Off	30 minutes after the scale inactive or at extreme low power supply		
Scale casing	Engineering plastic, corrosion safe, anti-static and light weight		
Keypad	Light touch keypad		

3.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.)

OFF ▲ 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.

M ◄ Press this key to change between Measured Division and Selectable Division.

ZERO Press this key to set the current display to zero.

4.Operations

■ Turn On the Scale
‹1› Open the back cover of the scale casing.
‹2› Install 4 AA batteries and set the sliding switch to "B" position.
‹3› Close the back over.
‹4› Press the red button 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.
‹5› After 0.0 is displayed and stable indicator 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).

■ Zeroing

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 ZERO to set the display to "0".

■ Weight Measurement

‹1› 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.

‹2› In case there is tare such as cable, load the tare and press ZERO to zero the display to 0.0kg. The weight value after this will be the net weight. This will not change until the tare change or the scale being turned off.

■ Turn Off the Scale

‹1› After weighing operation, the scale should be turned off.
Press OFF ▲ key twice to turn off the display.

‹2› 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.

5.Scale Care

1.The alkaline batteries with the Standard Option are not rechargeable battery. Do not attempt to charge them.

2.For weighing operation, please load the scale with weight load exceeding the scales maximum capacity.

3.Perform routine inspection and maintenance to ensure operation safety for these basic items:

‹1› Check for loose bolts.

‹2› Check hook and shackle for deformation, wearing and tearing.

‹3› Check other scale component for signs of metal fatigue.

‹4› Check for missing hook latch.

‹5› Avoid hitting, bumping the display window.

‹6› Do not use the scale in the rain or heavily polluted environment.

‹7› Please remove the AA battery when scale is not used for extended period of time. For problem "a" through "d", please stop using the scale and send it back to INSIZE for repair or replacement of problem parts.

6.Setup Functions

Function	Operation	Display	Remarks
	Press M◀ key during the scale self-check sequence "9,.... 0" to enter the sub-menu	00000	Enter the sub-menu,needed to enter password
	Press OFF▲ key to add Press M◀ key to move the digit left	11111	Enter password "11111"
Turn On/Off the weigh stable alarm beep	Press ZERO key	BEE 0	Enter the alarm ON/OFF setup mode.Press OFF▲ key to change. "0" to OFF, "1" to ON"
Zero Function	Press ZERO key	Stb 0	0: zeroing allowed whenunstable 1: zeroing not allowed whenunstable Press OFF▲ to change

Function	Operation	Display	Remarks
Display unit change between kg and Ib	Press ZERO key	Cht 0	Display unit change. Press OFF▲ to change. "0" for lb and "1" for kg
Save results	Press ZERO key	YES 0	0: don't save 1: save Press OFF▲ to change
	Press ZERO key		Automatic re-start

7.Display

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©   kg

M   lb

🔋   ◎

No. 8202-150KG   Max 150kg   d=0.05/0.02kg

🔋   Low voltage indicator. When this symbol is lit, the system is at low power status.

M   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.

8.Calibration

Attention:
‹1› After using the product for a long time, please calibrate with weights.
‹2› When the product is used in other places different from the place on the warning label, it needs to be calibrated before use. Weight calibration or gravitational acceleration calibration can be used.

■ Weight calibration

Step	Operation	Display	Remarks
1	Press & Hold ZERO Key to power on	00000	
2	Press OFF▲ Key to add Press M◄ Key to move the digit left to input the password "11111"		
3	Press ZERO key	SPAN	Scale should be with no load
4	Press ZERO key	SET 00000	

Step	Operation	Display	Remarks
5	Load weight		The closer the load weight is to the full capacity, the better
6	Press [OFF▲] Key to add Press [M◀] Key to move the digit left to input the load weight For example, 150		
7	Press [ZERO↵] key	HOLD	
8		150.00	

■ Gravitational acceleration calibration

Gravitational acceleration calibration is made by changing the calibration coefficients in the crane scale.

The original calibration coefficients of the crane scale is "a", and the new calibration coefficients is "b", then b=a×g2÷g1. That "g1" is the original gravitational acceleration value, and "g2" is the new gravitational acceleration value.

The modification steps are as follows:

Step	Operation	Display	Remarks
1	Press & Hold [M◀] Key to power on		The five digits displayed are the original calibration coefficients "a" Please record it in the table below
2	Press [OFF▲] Key to add Press [M◀] Key to move the digit left to input the password "66666"		

Step	Operation	Display	Remarks
3	Press [ZERO↵] key	00000	
4	Press [OFF▲] Key to add Press [M◀] Key to move the digit left to input new calibration coefficients "b"		
5	Press [ZERO↵] key		System restarts and uses the new calibration coefficients

Note:

Please fill in the following record table each time you modify the calibration coefficients, for reference in the next modification. Please note that the new gravitational acceleration "g2" for Time 1 is same as the original gravitational acceleration "g1" for Time 2, and so on.

Calibration Coefficients Adjustment Record Table

Product Serial Number:				
Time	Date	Original calibration coefficients "a"	Original gravitational acceleration "g1"	Original gravitational acceleration "g2"
1			9.81308	
2				
3				
4				