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Electronic Crane Scale

User's Guide

CRANE   SCALE

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Overview

OCS-XZ-GSE/GSC 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, the GSE series of scale 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.

Specifications

Product Execute Standard	GB/T11883-2002
Accuracy Grade	III
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℃ ~ +40℃
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 – Standard Option 1: Four (4) 1.2V Nickel-H rechargeable batteries Option 2: 7.4V/2AH Lithium rechargeable Battery (self contained)
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

Keypad Functions

The keypad includes those keys such as ON,OFF,RST(only available the scale with LED display),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.)
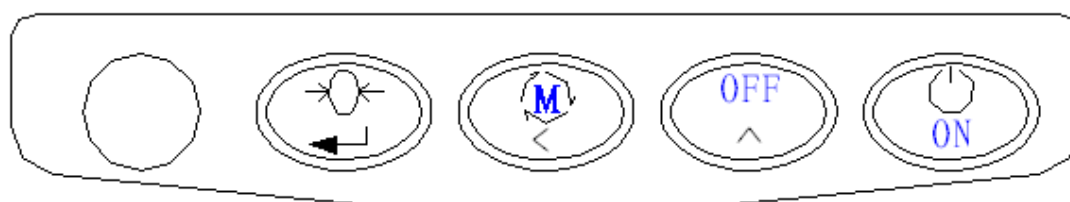
Model	Max. Capacity (kg)	Mini. Weight (kg)	Measured Division	Selectable Div.
OCS-XZ-003	30	0.2	0.01	0.005
OCS-XZ-005	50	0.4	0.02	0.01
OCS-XZ-010	100	1.0	0.05	0.02
OCS-XZ-015	150	1.0	0.05	0.02
OCS-XZ-020	200	2.0	0.10	0.05
OCS-XZ-030	300	2.0	0.10	0.05

Keypad Function/Operation

LED

LCD

1. ［ON］: With the main switch on the back of the scale is at ON position, press this key to turn on the scale.

2. ［RST］: Regardless the status of the scale, press this key for reset operation (applicable to the scale with LED display).

3. ［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.

4. ［Ⓜ］ : Press this key to change between Measured Division and Selectable Division.

5. ［→◯←］ : 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 Operation

1. Turn On the Scale
   a) Open the back cover of the scale casing (see Figure 3).
   b) Install 4 AA batteries and set the sliding switch to "B" position. In case the scale is with rechargeable lithium battery (purchased option), set the sliding switch to "A" position.
   c) Close the back cover.
   d) Press the mechanical switch located on the back of scale. Then press ON key to turn on the scale. The scale's maximum weighing capacity is first shown, and then the scale

goes through a self-check sequence.

e) After 0.0 is displayed and zeroing indicator (for GSE model) or symbol (for GSC model) 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 "Net" to set the display to "0".

b) For GSC series crane scale, when "Aut" is set to "0" in the sub-menu, the backlighting is turned on after "Net" key is pressed and hold for more than 3 seconds. Press and hold "Net" 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 "Net" 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 the Off key twice to turn off the display.

b) Press the mechanical 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 Method

1. Lithium Battery (self contained)

a) Open the scale back cover (see Figure 3) to connect the charger adaptor. And then connect the power for the adaptor.

b) When the lithium 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 7.4V/2AH lithium battery, GSE series scale can operate over 20 hours and GSC series scale 40 hours (without backlighting).

d) For optimal battery life time, it is recommended to charge the battery for every 12-hour of scale operation.

2. Nickel – H Battery

a) Insert the rechargeable batteries into the charger. Connect the power to the charger and following the instruction of the Nickel-H battery charger.

Scale Care

1. The alkaline batteries with the Standard Option are not rechargeable battery.   Do not attempt to charge them.
2. Customer can select either the 7.4V/2AH high power lithium rechargeable battery with DC8.4V/500mA charger or the 4 Nickel-H rechargeable battery/charger packages. Please do not use the rechargeable battery package other than those provided by fty.   The use of third party product may void any fty guarantee.
3. For weighing operation, please load the scale with weight load exceeding the scale's maximum capacity.
4. 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.
   f) Do not use the scale in the rain or heavily polluted environment.
   g) 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 authorized Blue Arrow dealer or Blue Arrow for repair or replacement of problem parts.

Calibration Method

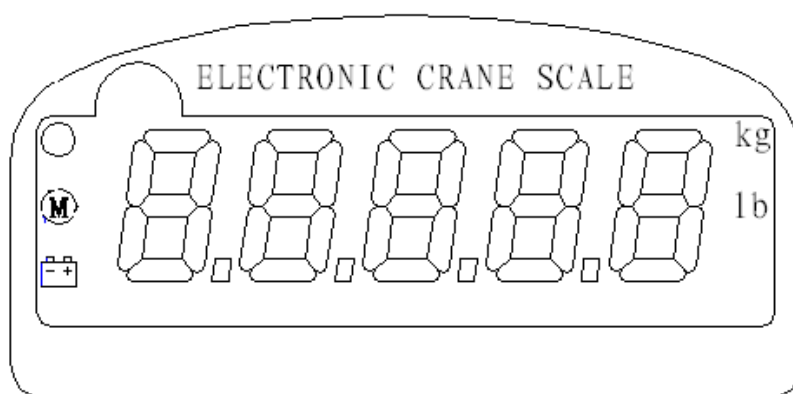Please do not attempt to calibrate the scale without standard weight

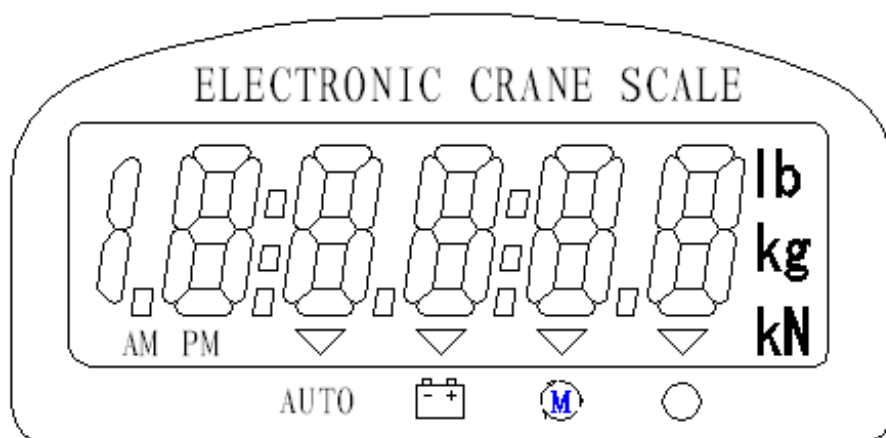| Step	Operation	Display	Remarks
1	Press & Hold [⟳]Key to power on	SPEN	Enter the calibration procedure. Scale should be with no load
2	Press[⟳]Key	SET 00000	Confirm zero point, when stable, display "00000"
3	Press [∧] Key to add Press [↵]Key to move the digit left	150.00	Load the scale. The closer to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

Setup Functions in Sub-Menu

Function	Operation	Display	Remarks
Turn On/Off the weigh stable alarm beep	Press [↵] key during the scale self-check sequence "9,….0" to enter the sub-menu	BEE 0	Enter the alarm ON/Off setup mode. Press [↑]key to toggle the setup. "0" to Off, "1" to "ON"
Display unit change between Kg and lb	Press [↷] key	CHT 0	Display unit change. Press [↑]to change. "0" for Kg and "1" for lb.
GSC backlighting	Press[↷] Key (for GSC models only)	AUT 0	Manual/Auto backlighting setup. Press [↑]key to change. "0" for Manual, "1" for Auto
-------------	Press [↷]Key	----	Automatic re-start

Display Screen and Prompt Symbol

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 Auto Manual or Auto backlighting. When this symbol is lit, indicating the backlighting will be on during the weighing process.
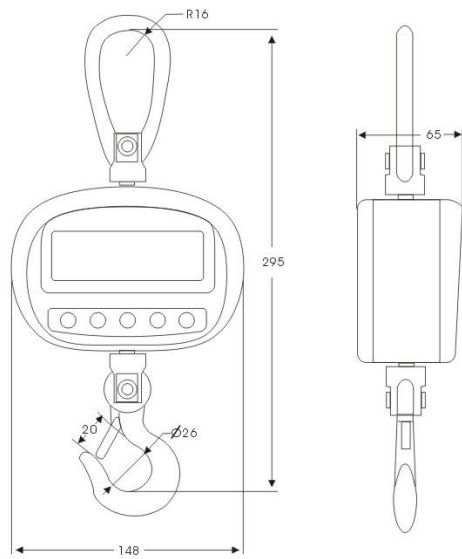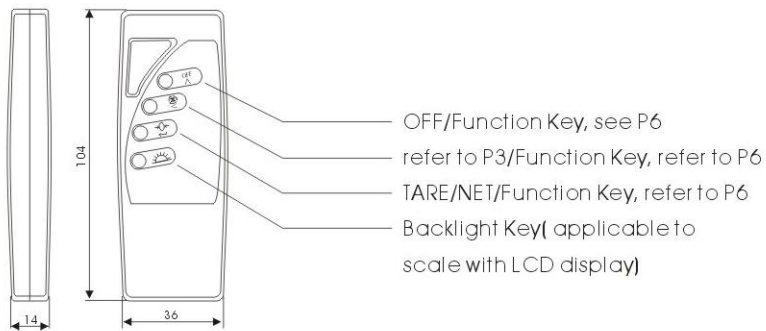
Schematics

Figure 1 (Unit:mm)

OFF/Function Key, see P6

refer to P3/Function Key, refer to P6

TARE/NET/Function Key, refer to P6

Backlight Key(applicable to scale with LCD display)

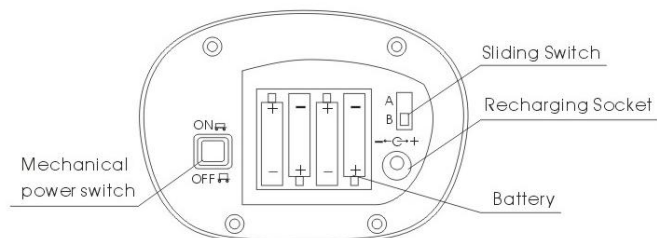*Figure 2* (Unit:mm)

Sliding Switch

Recharging Socket

Mechanical power switch

Battery

Figure 3

(Drawing of rear casing of the scale)