USER MANUAL

WIRELESS CRANE SCALE

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CHAPTER I GENERAL INFORMATION

OVERVIEW

SellEton Scales SL-W-CR hand-held wireless indicator is a hand-held operation controller to operate and control the wireless crane scale. Our SL-W-CR comes with many benefits; high reliability of wireless communication, simply to operate and energy efficient. This type of system is suitable for various kinds of electronic crane scale usage. All SellEton Scales electronic components are built with industrial-grade parts to ensure us in most harsh environments.

TECHNICAL PERFORMANCE

Direct display type wireless crane scale

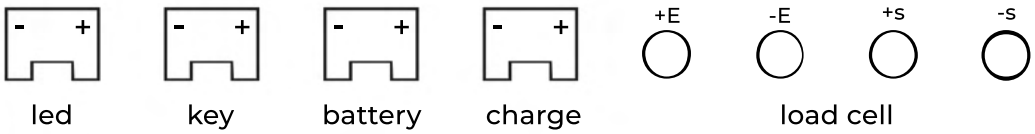
- Input signal range: -20-+20mV
- A/D conversion: 24-bit sigma-delta analog-to-digital conversion
- Nonlinear: ≤0.0015%F.S.
- Minimum resolution: 0.5μV/d
- Excitation voltage: 5V/100mA
- Operation temperature: -40-+85
- Relative humidity: ≤90%R.H
- Power supply: DC6V

Hand-held wireless indicator

- Display: 5-bit 0.5-inch LCD displayer
- Communication frequency: 433MHz (32 channels)
- Communication range: ≥350m no block (greater distances can be customized)
- Operation temperature: -10-+45
- Relative humidity: ≤90%R.H
- Power supply: built-in 3.6V battery, with 4.2V charger

CHAPTER II INTERFACE DEFINITION

WIRELESS CRANE SCALE WEIGHING MODULE INTERFACE



1) LED interface with LED indicator light
2) Key interface with power button
3) Battery interface with 3.6V battery
4) Charge interface with 4.2V charger
5) Load cell interface

+E	-E	+S	-S
+EXC	-EXC	+SIG	-SIG

HAND-HELD WIRELESS INSTRUMENT INTERFACE

It's a 4.2V charger jack; positive inside and negative outside.

CHAPTER III CALIBRATION MODE

In order to maintain the normal operation, the SL-W-CR requires a direct line of sight with the wireless crane. SellEton Scales weighing modules utilizes radio frequency to communicate between the wireless display and load cell. This means the display and crane scale must be on the same frequency. Please read [Chapter IV about Special Function] for reference of wireless communication channel and address settings. Prior to calibrating your indicator, it is necessary to carefully check if the radio frequency among each unit is the same. If so, power on the wireless crane scale and the wireless SL-W-CR display indicator. This will allow the user to operate the calibration sequence after the unit does a self-inspection (count down) and to receives the weighing data mode.

PARAMETER SETTING

NO.	Button	Display	Introduction
1	**DEBUG** **888888** **ENTER**	 [888888] [CAL 1]	In weighing mode, press **DEBUG** Initial calibration password: M1=888888 CAL=1 parameter setting
2	 **02** **ENTER**	[d xx] [d 02]	Division value: d=01, 02, 05, 10, 20, 50 e.g. d=02
3	 **0** **ENTER**	[dC x] [dC 0]	Decimal point: dC=0, 1, 2, 3 0-0, 1-0.0, 2-0.00, 3-0.000 e.g. dC=0
4	 **ZERO** **5000** **ENTER**	[xxxxxx] [0] [5000]	Range setting: e.g. 5000kg
5	 **3** **ENTER**	[FLt x] [FLt 3]	Filtering levels: FLt=0, 1, 2, 3 (best performance) e.g. FLt=3
6		[F0 x]	Zero tracking speed:

	5 **ENTER**	[F0 5]	F0=0-9s e.g. F0=5 (tracking 1 time per each 5s)
7	**2** **ENTER**	[F1 x] [F1 2]	Zero tracking range: F1=0, 1, 2, 3, 4, 5, 6 0-0.0d, 1-0.5d, 2-1.0d, 3-1.5d, 4-2.0d, 5-2.5d, 6-3.0d e.g. F1=2 (tracking range is 1.0d)
8	**1** **ENTER**	[F2 x] [F2 1]	Starting up to zero range: F1.2=0, 1, 2, 3, 4, 5 0-starting up without Zero, 1-2%, 2-4%, 3-20%, 4-50%, 5-100% e.g. F2=1 (starting up to zero range is 2%)
9	**3** **ENTER**	[F3 x] [F3 3]	Press **ZERO** to set zero range: F1.3=0, 1, 2, 3, 4, 5 0-not set zero, 1-2%, 2-4%, 3-20%, 4-50%, 5-100% e.g. F3=3 (set zero range is 20%)
10	**0** **ENTER**	[Jd x] [Jd 0]	Direct display type weighing module energy saving mode setting: Jd=0, 1 0-normal operation mode, 1-energy saving mode e.g. Jd=0 (normal operation mode)
11	**0** **ENTER**	[ud x] [ud 0]	Unit conversion (KG/Lb conversion): ud=0, 1 0-cancel, 1-effective
12			Back to weighing status

WEIGHT CALIBRATION

NO.	Button	Display	Introduction
1	**DEBUG** **888888** **ENTER** **2** **ENTER**	 [888888] [CAL 1] [CAL 2]	In weighing mode, press **DEBUG** Initial calibration password: M1=888888 CAL=2 weight calibration
2	 **ENTER**	[xxxxxx] [0]	Display numerical value in empty scale If display steadily, press **ENTER**
3	**ENTER**	[xxxxxx]	Add standard weight G in weighing platform If display steadily, press **ENTER**
4	**1000** **ENTER**	[0] [1000]	 Input standard weight G e.g. G=1000kg
5			Back to weighing status

COMPENSATION CALIBRATION

NO.	Button	Display	Introduction
1	**DEBUG** **888888** **ENTER** **3** **ENTER**	 [888888] [CAL 1] [CAL 3]	In weighing mode, press **DEBUG** Initial calibration password: M1=888888 CAL=3 compensation calibration
2	**ENTER**	[xxxxxx]	Existent errors between display weight and actual weight G Press **ENTER** while displays steady
3	**10000** **ENTER**	[0] [10000]	 Input actual weight G e.g. G=10000kg
4			Back to weighing status

MODIFICATION OF STANDARDIZEDRATE AND CALIBRATION PASSWORD

NO.	Button	Display	Introduction
1	**DEBUG** **888888** **ENTER** **4** **ENTER**	 [888888] [CAL 1] [CAL 4]	In weighing mode, press **DEBUG** Initial calibration password: M1=888888 CAL=4 modifying standardized rate and calibration password M1
2	 **ENTER**	[r1] [xxxxxx]	After 1 second, r1, cannot be modified
3	 **ENTER**	[r2] [xxxxxx]	After 1 second, r2, press numeric button to modify
4	 **98** **ENTER**	[xxxxxx] [98]	M1 modification: M1 is 1-6-bit numbers Input new calibration password M1 e.g. M1=98

Note: the standardized rate r2 cannot be allowed to modify randomly otherwise the result of weighing process may be not accurate. Also, it is better not to change calibration password M1.

CHAPTER IV ABOUT SPECIAL FUNCTION

DISPLAY OF WIRELESS CHANNEL AND ADDRESS

When switching on the power supply, the display shows software version number [H2.01], after 1 second, it displays wireless communication channel [C xx], and then shows the address [nxxxx]. After that will go into self-inspection mode (count down sequence).

SEARCH OF WIRELESS CHANNEL

When the SL-W-CR hand-held wireless indicator is in self-inspection program (count down sequence), press 8 and DEBUG, the indicator will search for weighing module radion frequency channel automatically. When it has successfully found the weighing module radio frequency channel, it will display [ok]. Important reminder: please remember the radio frequency channel which be displayed in the weighing module channel.

MODIFICATION OF WIRELESS CHANNEL AND ADDRESS

01: Modification of hand-held wireless indicator:

When the SL-W-CR hand-held wireless indicator is in self-inspection (count down sequence), press 7 and ZERO to display the indicator's communication channel, you can press numerical buttons to change the channel number (00-31) and then press ENTER to display address. Also you can press numerical buttons to change the channel number. After press ENTER to finish.

02: Modification of hand-held wireless indicator and weighing module:

While the SL-W-CR hand-held wireless indicator in the self-inspection, press 9 and ENTER to display a black screen. Enter the password 0147888888 and ENTER to display channel number. After you can press numerical buttons to change channel number (00-31) and then press ENTER to show address. Also the numerical buttons can be used to change and press ENTER to finish.

WORKING MODE

While the SL-W-CR hand-held wireless indicator in the self-inspection (count down mode), press DEBUG and then input [666666], press ENTER to display [F x], then press 1 to select host and press 0 to select auxiliary and then press ENTER. When displaying [U x], press 1, the weighing module is DC3.6V power supply; press 0, the weighing module is DC6V power supply, then press ENTER.

CHAPTER V BASIC OPERATION

BUTTON

01: Hand-held wireless indicator

ON: switch on the power supply of indicator

OFF: switch off the power supply of indicator

OFF SCALE: switch off the power supply of weighing module

ZERO: reset button

DEBUG: calibration adjustment

ENTER: confirmation

B: backlight ON/OFF button

V: display battery voltage of weighing module

T: tared operation

C: clear cumulative weight

A: display cumulative weight

3: kg and lb conversion, except numerical function

02: Direct display type weighing module

LEFT: power supply switch button

RIGHT: Zero/Tare button; it will remove tare weight if more than 2%, otherwise reset

UNIT CONVERSION

(only effective under host operation status)

In displaying weight status, press 3 to convert weight unit kg and lb. In the process, displayed weight will return to gross weight status and cumulative weight will turn to zero automatically.

TARED OPERATION

(only effective under host operation status)

In displaying weight status, press T to store the instant displayed weight as tare weight and to show net weight.

INSTANT CUMULATIVE WEIGHT

In displaying weight status, press **ENTER** to accumulate instant displayed weight and show cumulative number and back to displayed weight status after 1 second. Each weigh will accumulate one time and only if the displayed weight back to 0 and reweigh, it will implement new instant cumulative weight.

DISPLAY CUMULATIVE WEIGHT

In displaying weight, press A to separately display lowest 4 bits (L) and highest 4 bits (H) of displayed weight and then back to displayed weight status.

CLEAR CUMULATIVE WEIGHT

In displaying weight, press C and then ENTER to clear weight and back to displayed weight status; or only press C to back to displayed weight status if remaining cumulative weight.

DISPLAY SCREEN BACKLIGHT

In displaying weight, press B to adjust light of display screen backlight.

BATTERY VOLTAGE OF SCALE

In displaying weight, press V to display battery voltage of scale.

MATTER NEED ATTENTION

1. If wireless communication is not running normally, please check carefully reliability of power supply and antenna connection. Also check the consistency of hand-held wireless indicator's and weighing module's wireless channel and address.
2. This indicator should away from the place which has corrosive gas and liquid, conductive powder, moist environment and violent vibration.
3. Prohibit using strong solvent (e.g. benzene, Nitro oil) to wash the cover.
4. The hand-held wireless indicator has a built-in 3.6V battery and it uses a 4.2V charger to recharge. The main board adopts 6V battery to supply power and uses 7.5V charger to recharge. Please remember to charge the battery immediately if the no energy or it will damage the battery. Also because of the self-discharge by battery, please charge the battery which not use frequently once two weeks. The battery is consumable product which does not belong to warranty scope.
5. Please immediately to cut off the power if the display runs into a malfunction and then send back to the company for repairing. Please non-professionals do not self-repairing.