



P1 USER MANUAL



About This Manual

This Manual is intended for use by service technicians responsible for installing and servicing 110ES-WL wireless scale and P1 weighing indicator.

CAUTION

1. Don't make lifts beyond rated capacity of the scale
2. The scale must be checked for operation routinely. Don't operate if hook, shackle, sling, cable, etc show any sign of defects or excessive wear.
3. Avoid bump, keep the scale and the indicator away from corrosive liquid or environment.
4. If the scale is not going to be operated for a long time, please turn off the scale and indicator, recharging the battery every two months to preserve the life-span of the battery and recharge it **before** operation
5. When indicator displays low battery, do not turn on the crane scale. Please recharge the battery first **before** turn on the scale.
6. Most procedures described in this manual are to be performed by qualified service personnel only.

1. Introduction

The indicator front panel consists of a LCD display and keyboard, the indicator comes up with a substantial and durable ABS indicator suitcase.

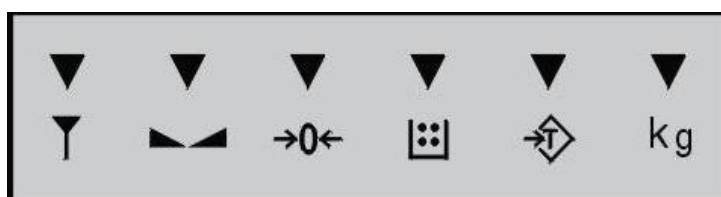
1.1 Standard Features


- ◆ Σ - Δ A/D conversion technology.
- ◆ Keyboard calibration, simple operation.
- ◆ Weighing data save protection in case of power off.
- ◆ Battery charger with several protection modes to extend life of rechargeable battery.
- ◆ Portable design, hand-hold, easy to operate outdoor.
- ◆ LCD display with backlight.
- ◆ Standard parallel print interface(EPSON printer).
- ◆ Rechargeable 7.2V/2.8AH battery for indicator. Scale body with power supply of 4*RCR123A batteries.
- ◆ Power saving mode, indicator will turn off automatically after 30minutes without operation.


1.2 Specifications

A/D conversion method	Σ - Δ
Input signal range	-3mV~15mV
Load cell excitation	DC 5V
Division	1/2/5/10/20/50 optional
Display	LCD display with backlight
Wireless Communication frequency	P1-01: 433MHz P1-02: 915MHz
Wireless transmission distance	30 meters (in wide place)
Max internal code	1,000,000
A/D transfer speed	50 times/second
Power on zero range	20% Cap
Display	192x64 matrix LCD(with backlight)
Tare range	100% Cap
Zero range by manual	4% Cap
Operation Temperature range	Scale -10°C~50°C Indicator 0°C~40°C

1.3 Display





 : Wireless Signal: The symbol is displayed when the wireless communication signal is normal.

 : Stable, The symbol is displayed when load is stable or within the preset dynamic load range.

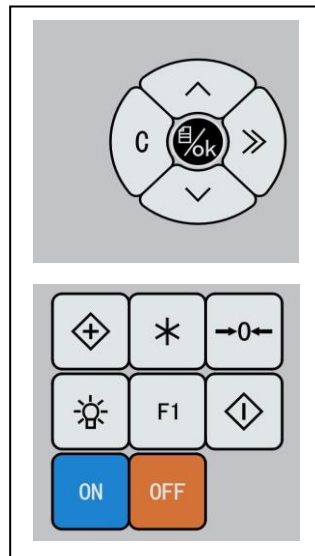
 : Zero, The symbol is displayed when load is within zero range.

 : Count, The symbol is displayed when there are data saved in the memory.

 : Tare, The symbol is displayed when Tare setting is not zero.

 : The symbol is displayed when display showing units in kg.

1.4 Keyboard



[ok] Key: Push [ok] to Enter the Configuration Mode while in the Weighing Mode or confirm the configuration setting in Configuration Mode.



“^” “v” Key: Move up and down or increase and decrease the value.

“>>” Key: Move right.

“C” Key: Return the previous menu, keep pressing the “C” Key till the indicator is back to Weighing Mode.

“+” Key: Save the stable scale reading into memory.

“*” Key: Display the total weight and item count if there is stored weighing data in the memory.

“☀️” Key: If the weighing is less than 4%FS, press the “☀️” Key to zero the scale; if the weighing is larger than 4%FS, press the “☀️” Key to change net weight from gross weight or vice versa. When the  symbol is on, the indicator is showing net weight, press “☀️” Key again to change to gross weight, the  symbol is off.

“💡” Key: LED back light. Press the “💡” Key to turn on the LED back light, press it again to turn off the back light.

The LED back light will be turned off automatically if the scale reading is stable or no operation on the indicator within 2 minutes. The back light will be turned on again if the scale reading changes or there is an operation on the indicator.

“F1” Key: Reserve key

“⬇️” Key: Clear the stored weighing data in the indicator.

“ON” Key: Power ON.

“OFF” Key: Power OFF.

1.5 Battery

	Scale	Indicator
Battery Type	4*RCR123A batteries	7.2V 2800mAH Ni-MH battery
Charger	Lithium battery	NC1056
Charge Time (Approximately)	3 hours	4 hours
Work Time	8 hours	40 hours (without backlight)
Charger Power supply	100~240VAC 50/60Hz	100~240VAC 50/60Hz

1.6 Error Message

Err 05

Wireless communication is abnormal, check the antenna and the power supply of both indicator and the scale.

--OV--

Overload, if there is not weight on the scale, the wire connection between the load cell and the wireless module.

dC LL

Indicator low battery, please recharge the indicator with NC1056 recharger.

L ----

Scale low battery, please recharge the scale battery with lithium battery charger.

1.7 Installation Of The Scale



Unscrew the battery cap, replace the flat batteries with the fresh ones, make sure the batteries are installed properly **before** tightening the battery cap. **The negative of the battery is facing the battery cap.**


The scale body will turn off after one hour without operation. If you want to use again, please turn it off **before** turn it on again.

2. General Configuration

In this chapter, this manual will guide you how to configure the P1 indicator.

Press  to enter Configuration Mode.

Press “” and “” Key to switch menu from F1 to F9.

Press  to enter setting.

F 1: Peak Hold


P 0 -----Enable Peak Hold;




P 1 -----Disable Peak Hold;

F 5: Filter Setting



FLT 0~ FLT 7---It's recommended to set the filter to 1 when calibrating and 4 when the indicator is in the normal Weighing Mode.

F9: Calibration

Press  when indicator shows F9 to enter Calibration.

The indicator will show P 000 after entering calibration, which means there is a 3 digits password required to enter the setting. Press  to move right and press “” and “” to edit the number.

The default password is 111.

Indicator will show S Menu after entering Calibration. Press “” and “” Key to switch S menu from S1 to S9.

S1: Display Divisions

User can choose from 1,2,5,10,20,50,100.

S2: Decimal Point Position

User can choose from 0,1,2,3,4

S3: Capacity

Specify the capacity of the scale. User can edit the number.

S4: Test weight

Specify the test weight on the scale to calibrate the indicator.

S5: Zero Range

Select the range within which the scale can be zeroed.

0: 0%

1: 4%

2: 10%

3: 20%

4: 40%

S6: Change Password

When the indicator shows 0P 000, input the old password. When the indicator shows nP 000, input the new password.

S7: A/D Count

P1: Zero Calibration A/D Count

P2: Capacity Calibration A/D Count

It's recommended not to change these numbers.

S8: Power Saving Mode

OFF 1: Enable

OFF 0: Disable

S9: Display Division Switching


dd 1: Enable

dd 0: Disable

3. Calibration


The calibration of P1 indicator consists of the following steps:

- **Zero calibration**
- **Entering the test weight value**
- **Capacity calibration**

Zero Calibration: Set the indicator to Normal Weighing Mode. Press  to zero the scale.



Entering the test weight value: Set the indicator to Configuration Mode—F9—Input Password (Default password 111)—S4, enter the test

weight value.


Capacity Calibration: After the test weight is put on the scale and the scale is stable, press  to save the calibration, then the indicator will return to Normal Weighing Mode, the calibration is completed.

4. Weighing Data Processing

4.1. Accumulate Weighing Data

After the scale reading is stable and  symbol is shown, press  to accumulate the weighing, the indicator will shown total weight and cumulate number in sequence.

Note:

- Zero and negative weighing data cannot be counted;
- The weighing data can only be saved after the scale reading is stable;
- One weighing data can only be counted for one time.
- The maximum cumulate number is 99;
- If the wrong data is counted, press  to clear the wrong data.


After the weighing data is saved in the indicator:

Press , the indicator will show total weight.

Press  again, the indicator will show total cumulate number.


4.2. Erase The Stored Weighing Data

The weighing data can be erased single weighing data at a time or all weighing data at a time.

Press , the indicator will show “CLL 1”, press “” or “” to switch from 1 and 2.

1--- Erased single weighing data;

2--- Erased all the weighing data.

Press  to confirm, the indicator will show “END” after the erasing is complete.