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USA Measurements
"We Outmeasure the Competition"

US-BLW

Wireless Handheld Display

Operation Manual

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Note: Please read the operation direction carefully before using weighing instrument. Thank you for your understanding.

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CHAPTER I INSTRUMENT INTRODUCTION

1. Overview

The wireless weighing instrument consists of handheld wireless instrumentation and wireless transmitter box. It has benefits of weighing with high precision, long-term stability and high reliability of wireless communication. The operation is very easy and all electronic components accord with industrial-grade to ensure that work in harsh environments.

2. Technical Performances

1) Wireless transmitter box

a.	Input Signal Range	-19.5~+19.5mV
b.	A/D Conversion	24-bit Sigma-Delta analog-to-digital Conversion
c.	Nonlinear	≤0.0015% F.S.
d.	Minimum Resolution	0.5μV/d
e.	Supply Voltage	5V/300mA
f.	Transmission Frequency	433MHz (32 channels)/1200bps
g.	Transmission Range	≥350m (No barrier)
h.	Operating Temperature	-40~+85℃
i.	Relative Humidity	≤ 90% R.H
j.	Power Supply Voltage	DC7.2V

2) Wireless Instruments

a.	Display Screen	6-bit 0.4-inch ultra bright LED display
b.	Operating Temperature	-40~+85℃
c.	Relative Humidity	≤ 90% R.H
d.	Power Supply Voltage	Internal lithium battery 3Ah/6.4V; Outside DC7.2V

CHAPTER II DEFINITION OF INTERFACE

1. F1 Wireless A/D transmitter box

   a. Power Supply

      The combination of two lines; red wire connect 6V, black line with 0V.

   b. Sensor

Red line	Black line	Green line	White line
Bridge Voltage +	Bridge Voltage -	Signal+	Signal-

2. Wireless Instruments

   The middle of power jack is positive supply DC7.2V, and the outside is Power Ground.

CHAPTER III CALIBRATION DEBUGS

Before the calibration debugging of an instrument, it is necessary to carefully check if the connection between the various parts is correct. It the connection has no problem, the next step is to open the case of instrument and plug the short block of circuit board SW1 in the instrument insert 1 and 2 feet. Then, it needs to be plugged in the instrument's power through ON. While the instrument finish its self- inspection program and enter into the weighing operation, it could be allowed to implement the calibration. After the calibration, the short block of circuit board SW1 must be plugged in the instrument insert 2 and 3 feet.

1. Parameter Set

No.	Key-Press	Display	Introduction
1	Calibration 8 8 8 8 8 8 Enter Enter	888888 CAL 1	In Weighing Mode, press Calibration Initial Calibration Password: M1= 888888 CAL= 1 Parameter Setting
2	1 0 Enter	d ** d 10	Weighing Scope Setting: d= 01, 02, 05, 10, 20, 50 (e.g.) d= 10
3	0 Enter	dC * dC 0	Decimal Point Setting: dC= 0, 1, 2, 3, 4 0 - 0, 1 - 0.0, 2 - 0.00, 3 - 0.000, 4 - 0.0000 (e.g.) dC= 0

CHAPTER III CALIBRATION DEBUGS

4	Clear 5 0 0 0 0 Enter	****** 50000	Range Setting: (e.g.) 50000kg
5	 3 Enter	F1.0 * F1.0 3	Zero Tracking Speed Setting: F1.0= 1,2,3,4(Slowest) (e.g.) F1.0= 3
6	 2 Enter	F1.1 * F1.1 2	Zero Tracking Range Setting: F1.1= 0, 1, 2, 3, 4, 5, 6 Zero Tracking Range is F1.1*0.5d (e.g.) F1.1= 2
7	 5 Enter	F1.2 * F1.2 5	Boot Zero Range Setting: F1.2= 0, 1, 2, 3, 4, 5 0 - Boot without Zero, 1 - 2%, 2 - 4%, 3 - 20%, 4 - 50%, 5 - 100% (e.g.) F1.2= 5

CHAPTER III CALIBRATION DEBUGS

8	5 Enter	F1.3 * F1.3 5	Press →0← to set Zero Range: F1.3= 0, 1, 2, 3, 4, 5 0 - Press →0← without Zero, 1 - 2%, 2 - 4%, 3 - 20%, 4 - 50%, 5 - 100% (e.g.) F1.3= 5
9			Back to Weighing Status

2. Weight Calibration

No.	Key-Press	Display	Introduction
1	2 Enter	CAL 1 CAL 2	To display CAL 1, CAL = 2 Weight Calibration
2	Enter	****** 0	Display numerical value in empty electronic scale If display steadily, Press Enter
3	Enter	xxxxxx	Add Standard Weight G in Weighing Platform If display steadily, Press Enter

CHAPTER III CALIBRATION DEBUGS

4	1 0 0 0 0 Enter	0 10000	Input Standard Weight G (e.g.) G= 10000kg
5			Back to Weighing Status

3. Compensation Calibration

No.	Key-Press	Display	Introduction
1	3 Enter	CAL 1 CAL 3	To display CAL 1, CAL= 3 Compensation Calibration
2	Enter	xxxxxx	Existent errors between Display Weight and Actual Weight G. Press Enter while steady presentation
3	1 0 0 0 0 Enter	0 10000	Input actual Weight G (e.g.) G= 10000kg
4			Back to Weighing Status

CHAPTER III CALIBRATION DEBUGS

4. Standardized Rate Modification & Calibration Debug Passwords

No.	Key-Press	Display	Introduction
1	4 Enter	CAL 1 CAL 4	To display CAL 1, CAL= 4 Modifying Standardized Rate and Calibration Password M1
2	Enter	r1 ******	After 1 second, Display r1 (but r1 cannot be changed)
3	Enter	r2 ******	After 1 second, r2 Press numeric key to modify
4	8 8 8 8 8 8 Enter	F1 xxxxxx 888888	After 1 second, Calibration Password F1 Modification: Input new Calibration Password M1 (e.g.) Calibration Password M1= 888888
5			Back to Weighing Status

Warning:

1) **The Standardized Rate cannot be allowed to modify randomly or the result of weighing process may be not accurate. Also, it is better not to change Calibration Debugging Password. If the Password has been modified, please must to remember because this instrument has no universal password. It has to**

return to the manufacturer for initialization if losing the password.

2) **Please remember plugging the short block of circuit board in the instrument insert 1 and 2 feet is a premise for all of above Calibration Debugging Operation. After finishing the operation, users must plug the short block insert 2 and 3 feet and seal on the shell of instrument.**

CHAPTER IV OPERATION INTRODUCTION

1. Introduction of Indicator Lamp

Indicator Lamp of stability: The weighing value is stable;
Indicator Lamp of gross weight: To display gross weight value;
Indicator Lamp of net weight: To display net weight value;
Indicator Lamp of zeroing: Gross weight value is 0

2. Boot to Zero & Reset Button

1) Boot to Zero

After self-inspection in boot, if the weight value is within boot zero range, it will display the weight value return to zero, or display the weight value not return to zero.

2) Press →0← to Zero

Under weighing status, press →0←. If the weight is within zero range by zero key, the weighing display will automatic zero resetting, or it does not return to zero.

3 Net Weight

In gross weighing state, the instrument displays the weight is stable and is greater than 0, press TARE, the instrument will decrease tare weight and display net weight which is 0.

In the net weighing state, press TARE, the instrument back to gross weight status after clearing the tare weight.

4 Weight Accumulation

In weighing status, the instrument displays the weight stability and greater than 0, press ENTER, the instrument automatically displays the cumulative weights and cumulative number of times (n ***).

CHAPTER IV OPERATION INTRODUCTION

5 Cumulative Weight Display

In weighing mode, press CUMULATIVE, the instrument displays the cumulative number of times (n ***); press ENTER, the instrument shows the cumulative weight of the high 3 (H ***); press ENTER again, the instrument displays the cumulative weight of the low 5 (L *****); and continues press ENTER to return to the weighing mode. In the process of the display of the cumulative weight, press ESCAPE to return to the weighing state directly.

6 Cumulative Weight Clear

In the weighing status, press CLEAR, the instrument displays Y or N, press ENTER to clear cumulative number of times and cumulative weights and back to weighing status; press ESCAPE, it does not clear data and back to weighing status directly.

7 Information Prompts

------: Overload Alarm Signal. If this is a scale without debugging, the error signal will be eliminated after calibration.

Err01: Input wrong number.

Err02: No load weight on the scale which cannot be calibrated weight.

L : Indicates that the battery voltage is low which requires immediate charge.

--no--: Wireless signal failure.

8 Matters Needing Attention

1) To plug the sensor socket after turning off the instrument power supply.
2) If the left of the instrument displays L. please immediately using professional charger for charging on the instrument. The instrument should be charged every three month if there is no using in a long time.