ANYLOAD®

OCSD-P380 WIRELESS DYNAMOMETER

USER MANUAL

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SAFE OPERATION GUIDE：

1. Do not make lifts beyond rated load capacity of the dynamometer and the shackle(s).
2. Do not perform overhead weighing. Stay clear when Dynamometer is in operation.
3. Do not perform weighing under strong wind as it may cause incorrect readings.
4. Do not perform weighing in an environment with rapid temperature changes as it may cause incorrect readings.
5. Do not attempt to open the Dynamometer, there are no serviceable parts inside.
6. Do not remove wire rope stopper from hook. For safety reasons, always apply.
7. Remove all loads from shackle or hook when not in use.
8. Before weighing, check that all hanging, load- receiving elements and devices are in good condition.
9. Check hook, shackle, safety pins, and latches periodically. Contact your dealer for replacement parts in case of defect, deformities or wearing.
10. Always lift loads vertically.

CHAPTER 1 FEATURES AND SPECIFICATIONS

Introduction:

OCSD Wireless Dynamometer is a well-built industry use instrument for different applications, amd is microprocessor controlled for precision accuracy. Parameter settings and calibration are easy to operate through the wireless indicator or by the keys on the Dynamometer.

1. Features

- Rugged construction, aluminum and alloy steel capacities are powder coated.
- Accuracy: 0.05% for 1-50t, 0.1% for above 50t capacity.
- Dual direction wireless communication
- All functions and units are clearly display on the LCD (with backlighting)
- Digits are 1 inch high for easy distant viewing.
- Two user programmable Set-Point can be used for safety and warning applications.
- The dynamometer is powered by 3 standard AA size alkaline batteries.
- All commonly used internationally recognized units are available: Kilograms (kg), Short Tons (t), Pounds (lb), Newton (N) and kilo-Newton (kN).
- Operation through wireless handheld indicator, easier to calibrate (with password)
- 4 local mechanical keys:"ON/OFF","ZERO","PEAK" and "Unit Change".
- Low battery warning.
- RF wireless handheld indicator is powered by 4 standard AA size alkaline batteries.

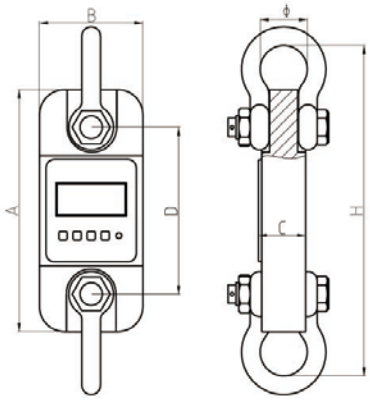
2. Main technical data

Display	25mm (1") 5 digits LCD with backlight
Power on zero range	20% F.S.
Manual Zero Range	4% F.S.
Tare Range	100% F.S.
Stable Time	≤5 seconds
Overload Indication	100% F.S. + 9e
Max. Safety Load	125% F.S.
Ultimate Load	400% F.S.
Dynamometer battery	AA size alkaline batteries. 1.5Vx3
Indicator battery	AA size alkaline batteries. 1.5Vx4
Operating Temp.	- 10 ℃ ~ + 40℃
Operating Humidity	≤85% RH under20℃
Wireless Distance	Min. 80m (default) , 200m (optional)
Wireless Frequency	2.4GHz (default), 433MHz,860MHz (optional)

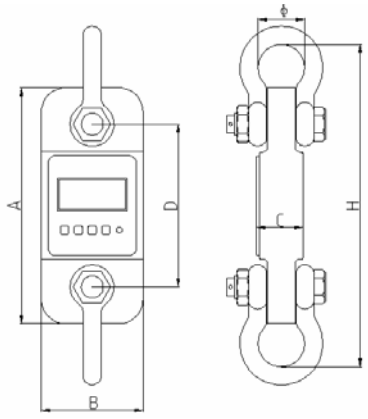
3. Specifications

Model	Capacity(kg)	Min. Weigh(kg)	Division(kg)	Total counts (n)
OCSD-1t	1000	10	0.5	2000
OCSD-2t	2000	20	1	2000
OCSD-3t	3000	20	1	3000
OCSD-5t	5000	40	2	2500
OCSD-10t	10000	100	5	2000
OCSD-20t	20000	200	10	2000
OCSD-30t	30000	200	10	3000
OCSD-50t	50000	400	20	2500
OCSD-100t	100000	1000	50	2000
OCSD-200t	200000	2000	100	2000

4. Appearance illustration



Cap: 1-5t



Cap: 10-200t

DIMENSIONS (Dimensions shown are nominal and subject to tolerances)

MODEL	CAP	A(mm)	B(mm)	C(mm)	D(mm)	φ(mm)	H(mm)	Material
OCSD-1t	1t	245	112	37	190	43	335	Aluminum
OCSD-2t	2t	260	123	37	195	51	365	Aluminum
OCSD-3t	3t	260	123	37	195	51	365	Aluminum
OCSD-5t	5t	285	123	57	210	58	405	Aluminum
OCSD-10t	10t	320	120	57	230	92	535	Alloy Steel
OCSD-20t	20t	375	128	74	260	127	660	Alloy Steel
OCSD-30t	30t	420	138	82	280	146	740	Alloy Steel
OCSD-50t	50t	465	150	104	305	184	930	Alloy Steel
OCSD-100t	100t	570	190	132	366	229	1230	Alloy Steel
OCSD-200t	200t	720	265	183	440	280	1362	Alloy Steel

WEIGHTS

Model	OCSD-1t	OCSD-2t	OCSD-3t	OCSD-5t	OCSD-10t
Unit Weight (kg)	1.6	2.1	2.1	2.7	10.4
Weight with shackles (kg)	3.1	4.6	4.6	6.3	24.8
Model	**OCSD-20t**	**OCSD-30t**	**OCSD-50t**	**OCSD-100t**	**OCSD-200t**
Unit Weight (kg)	17.8	25	39	81	210
Weight with shackles (kg)	48.6	73	128	321	776

5. Power supply

Dynamometer battery: AA size alkaline batteries. 1.5VX3

Indicator battery: AA size alkaline batteries. 1.5VX4

Current: the dynamometer average current is about DC 35mA, 3pcs new batteries can be used for about 40hours under continuous working.

Wireless indicator average current is about DC 28mA, 4pcs new batteries can be used for about 80hours under continuous working.

Low battery warning: When the digits are flashing, it means the battery needs to be replaced. The Dynamometer or wireless indicator will power off automatically after one hour without operation.

CHAPTER 2 DISPLAY AND KEYS

1. LCD Display

a) 25mm (1'') Height 5 digits LCD display.

b) : Appear when wireless signal is stable; disappear when no signal; flashing when signal is weak.

c) : Battery Voltage, : Full, : Low, : Empty

d) **PEAK**：Current value is Peak Hold value (maximum value).

e) **MEM**：Appears once when Parameter or Calibration value is stored. Long time appearance means current value is Accumulation data.

f) **STB:** Stable Status.

g) **KN**: "kilo-Newton", **N**："Newton". Tare status "N" will flash.

h) **t** ："Ton"

i) **lb** ："Pound"

j) **kg** ："Kilogram "

2. Keys

a) **ON/OFF key**

I. Press "**ON/OFF"** Key for 1 second, the Dynamometer will turn on.

II. In ON status，Press "**ON/OFF"** Key for 1 second, the Dynamometer will turn off.

b) **ZERO key**

When Dynamometer is switched on with no load, but there are small digits on the screen, press this key to obtain the zero reading.

c) **UNIT key**

Press UNIT key, the unit on LCD will display in loop as follows: "kg"→ "lb" →"N" → "kN"→ "t"→ "kg".

d) **PEAK key**

When load is changing, press this key and it will catch and display the maximum reading of the load.

Press this key again, reading will return to normal.

CHAPTER 3 WIRELESS INDICATOR OPERATION GUIDE

a) **【ON/OFF】**

I. Press "**ON/OFF"** Key for 1 Second, the indicator will turn on.

II. In ON status，Press "**ON/OFF"** Key for 1 Second, the indicator turns off.

b) **【ZERO】**

I. In testing status, there are small digits on screen, press this key to obtain the zero reading.

II. In Parameter Setting status, it is used as a scrolling up digit.

c) **【TARE】**

I. When there is tare weight such as a container, after the reading is stable, press this key, it will display "0", and "**N**" indicator will flash.

II. Put the object(s) into the container, the dynamometer will display the net weight.

III. If the object(s) and container are moved, the dynamometer will display a minus value.

IV. During Parameter Setting, it can also be used as a directional key.

Used as function shift, or can be combined with other key.

- Press【MODE】key once, it will display "OFF", press【ENTER】Key, it will wirelessly turn off dynamometer, and indicator will display "noSIG", means no signal.
- Press【MODE】key twice, it will display "SETUP", Press 【ENTER】Key access Parameter Setting. After parameter setting is finished, press 【MODE】key to confirm setting to return to test mode.
- Press【MODE】key 3 times, display will read "dC",Press【ENTER】Key to read current battery voltage, press【MODE】key again to return to test mode.
- Press 【MODE】key 4 times, it display "Unit", Press 【ENTER】Key to access unit selection. Press【ZERO】key to select unit, press【MODE】key again to return to test mode.
- Press 【MODE】 key 5 times, display will read "ACCU", Press【ENTER】Key to access Accumulation status, press【MODE】key to return to test mode.
- Press 【MODE】key 6 times, display will read "SACCU", Press【ENTER】Key to access Accumulation Search status, press【MODE】key to return to test mode.
- Press【MODE】key 7 times, display will read "CLEAR", Press【ENTER】Key to access Accumulation clear status, display will read "CLr 1", Press 【TARE】Key, display will read "noCLr". Press【MODE】key key to return to test mode.
- Press【MODE】 key 8 times, display will read "CLIbr", Press【ENTER】Key to enter into calibration program, after calibration is finished, press【MENU】key to return to test MENU. Details on Pg.13
- Press【MODE】 key 9 times, display will read "ESC", Press 【ENTER】Key to return to test mode.

e) **【ENTER】**

Used as function selection, normally combined with 【MODE】Key

f) **【PEAK】**

When load is changing, press this key to catch and display the maximum reading of the load.

Press this key again, reading will return to normal.

CHAPTER 4 DYNAMOMETER FUNCTION GUIDE

Note：( ) means the key on the dynamometer
【 】means the key on the indicator
〖 〗means the display content

1. ON/OFF

▪ TURN ON dynamometer

OPERATION	DISPLAY	ILLUSTRATION
(ON/OFF)	〖88888〗	Display twice, self test
	〖 Ert 〗	Display twice
	〖u=3.72〗	Display current software version
	〖CH=E3〗	Display current wireless channel E3
	〖 5000〗	Display capacity, e.g. 5t
	〖U=3.98〗	Display current battery voltage is 3.98
	〖———〗	Waiting stable
	〖 0〗	Displays current load, generally is 0

▪ TURN ON indicator

OPERATION	DISPLAY	ILLUSTRATION
【ON/OFF】	〖88888〗	Display twice, self test
	〖 Ert 〗	Display twice
	〖u 1.2〗	Display current software version
	〖CH=E3〗	Display current wireless channel E3
	〖U=3.98〗	Display current battery voltage is 3.98
	〖———〗	Waiting stable
	〖 0〗 or 〖noSIG〗	If display 0, means the indicator can communicate with the dynamometer, if display noSIG, means no signal from dynamometer

▪ TURN OFF dynamometer

1	Manual Power OFF	Press (ON/OFF) Key for 1 second
2	Remote Power OFF	Press【MODE】Key to select “OFF”, press【ENTER】Key
3	Auto Power OFF	Choose turn off method in parameter setting, the dynamometer will display 〖 -〗if having no operation after 15 minutes to save power, and it will turn off automatically after 60minutes.

▪ TURN OFF indicator

1	Manual Power OFF	Press 【ON/OFF】 Key for 1 second
2	Auto Power OFF	The indicator will turn off automatically after 3 minutes if not operated

2. ZERO

	OPERATION	DISPLAY	
1	Press (ZERO)	〖 0〗	When Dynamometer turns on, generally it displays 〖 0〗. In case no weight on the Dynamometer but display other than '0", press this button to reset it.
2	Press【ZERO】		

3. TARE

OPERATION	DISPLAY	
Press【TARE】	〖 0〗	After turned on the Dynamometer,hang the tare weight,such as sling cable, then press this key, "TARE" light will turn on. The scale will display net weight of the goods.

4. PEAK HOLD

OPERATION	ILLUSTRATION
Press (PEAK)	Catch and display Maximum value of changing load
Press (PEAK)	reading return to normal

5. ACCUMULATION

OPERATION	DISPLAY	ILLUSTRATION
Press【MODE】key 5 times	〖 ACCU〗	
Press【ENTER】	〖No***〗	Current accumulation time
	〖H****〗	Front four digits of total value
	〖L****〗	Rear four digits of total value

After display above contents twice, the dynamometer will return automatically.

6. ACCUMULATION SEARCH

OPERATION	DISPLAY	ILLUSTRATION
Press【MODE】key 6 times	〖SACCU〗	
Press 【ENTER】	〖No***〗	Current accumulation time
	〖*****〗	Current weight reading
	〖H****〗	Front four digits of total value
	〖L****〗	Rear four digits of total value
Press 【MODE】key again		Return

Press【TARE】and【ZERO】can check different times, weight and accumulation.

7. ACCUMULATION CLEAR

OPERATION	DISPLAY	ILLUSTRATION
Press 【MODE】 key 7 times	〖CLEAr〗	
Press 【ENTER】	〖CLr 1〗	Ask if you want to clear or not
	〖noCLr〗	Press【MODE】key Cancel clear
	〖88888〗	Press【ENTER】key Confirm clear

8. BATTERY VOLTAGE

OPERATION	DISPLAY	ILLUSTRATION
Press 【MODE】 key 3 times,	〖U *.**〗	Displays current battery voltage
Press 【MODE】 key again		Return

Note：Battery voltage normally between 〖U 3.50〗to 〖U 4.70〗, if below 〖U 3.10〗, the display will flash, Battery should be replaced.

9. UNIT

	OPERATION	DISPLAY	ILLUSTRATION
1	Press【MODE】key 4 times	〖UnIt 〗	
	Press 【ENTER】 key	〖Un=0〗	Un=0, the unit is kg, press【ZERO】to select unit from 0-4, 1 means lb,2 means N, 3 means KN, 4means ton.
	Press 【MODE】 key	〖 0〗	Confirm unit chosen and return
2	Press (UNIT)	〖Un =0〗	The dynamometer will display kg, lb, N, kN, ton in loop.

10. RETURN

OPERATION	DISPLAY	ILLUSTRATION
Press【MODE】key 9 times	〖 ESC〗	
Press 【ENTER】 key	〖 0〗	Return to normal testing status

11. SET POINT

There are two user programmable Set-Point can be used for safety and warning applications or for limit weighing.

1 LO SP1 1 HI 2 LO SP2 2 HI

OPERATION	DISPLAY	ILLUSTRATION
Press【MODE】key twice	〖SETUP〗	Confirm, enter into parameter setting
Press 【ENTER】	〖SP1 〗	Set point 1
Press【ENTER】to confirm	〖1 OFF〗	New dynamometer, it displays 1 OFF, if parameter set, it display set value.
Press【ZERO】 to choose	〖1 HI〗or 〖1 LO〗	There are 3 choices,1 OFF means you do not set point, 1 HI means the indicator will alarm when load exceeds the value you set, 1 LO means the indicator will alarm when load is smaller
Press【ENTER】to confirm	〖02000〗	The screen will display 02000, if parameter is changed, the screen display set value.
Press【 ZERO 】and【TARE】to change value	〖01000〗	Set “1 HI” or “1 LO” Value. e.g. 1000kg
Press【ENTER】to confirm	〖 SP2〗	Set point 2
Press【ENTER】to confirm	〖2 OFF〗	The screen will display 2 OFF, if parameter changed, it will display set
Press【ZERO】to choose	〖2 HI〗or 〖2 LO〗	There are 3 choices, 2 OFF means you do not set point, 2 HI means the indicator will alarm when load exceeds the value you set, 2 LO means the indicator will alarm when load is smaller
Press【ENTER】to confirm	〖01200〗	The screen will display 01200, if parameter is changed, the screen display set value.
Press【 ZERO 】and【TARE】to change value	〖03000〗	Set “2 LO” or “2 HI” Value. e.g.3000kg

If you do not need to set an item, you only need to press 【ENTER】until it displays next function.

CHAPTER 5 PARAMETER SETTING & CALIBRATION

Parameter setting and calibration will be operated through wireless indicator

1. Key function

KEY	FUNCTION
【TARE】	Move digit
【ZERO】	Set value up
【MODE】	Store and exit
【ENTER】	Confirm

2. Parameter setting

ACTION	DISPLAY	DESCRIPTION
Press【MODE】key twice	〖SETUP〗	Enter parameter setting program.
Press【ENTER】	〖FS=0X〗	The screen will display the calibrated capacity. If required, press【ZERO】to change the capacity from 02/03/05/06/10/15/20/30/50/60/75/80t circularly.
Press【ENTER】to confirm	〖Id=0X〗	The screen will display the calibrated division. If required, press【ZERO】to change the division from 01/02/05/10/20 circularly. Refer table below.
Press【ENTER】to confirm	〖Pt=X〗	The screen will display the calibrated decimal points. If required, press【ZERO】to change the decimal points from 0=xxxxx, 1=xxxx.x, 2=xxx.xx, 3=xx.xxx circularly. Refer table below.
Press【ENTER】to confirm	〖Ab=XY〗	This is for display zero range. A: zero range set manually; b: zero range set automatically. There are 6 options for both A and b: 0=0%FS; 1=2%FS; 2=4%FS; 3=10%FS; 4=20%FS; 5=50%FS. Recommended (default) setting is Ab=24 (A=2, b=4).
Press【ENTER】to confirm	〖Cd=XY〗	C: zero tracking range. There are 6 options: 0=0d; 1=0.5d; 2=1d; 3=1.5d; 4=2d; 5=2.5d; d: display speed. There are 3 options: 0=slow; 1=average; 2=fast. Before calibration, set Cd=00 to achieve high accuracy, after calibration, set Cd=12 (default).
Press【ENTER】to confirm	〖LL=X〗	This is for filter parameter. There are 6 options, from smallest to biggest. Before calibration, set LL=0; after calibration, set LL=1 (default)
Press【ENTER】to confirm	〖Un=X〗	The screen will display the calibrated unit. If required, press【ZERO】to change the unit from 0=kg, 1=lb, 2=N, 3=KN, 4=t circularly.

Press【ENTER】to confirm	〖OFF X〗	This is for turn off method. There are 3 options: 0: turn off by hand; 1: if no operation, the screen will display "-----" after 15 minutes to save power; 2: if no operation, the screen will display "-----" after 15 minutes, and turn off automaticallyafter 60 minutes (default).
Press【ENTER】to confirm	〖SP1 〗	Set point 1
Press【ENTER】to enter	〖1 OFF〗	The screen will display the calibrated function of Set Point 1. If required, press【ZERO】to change the function. There are 3 options: 1 OFF: turns off Set Point 1; 1 HI: the alarm will on when the load exceeds the set value; 1 LO: the alarm will on when the load not reach the set value.
Press【ENTER】to confirm	〖XXXXX〗	Press【ZERO】and【TARE】to change the set value of Set Point 1. If selected 1 OFF for Set Point 1, no need to change anything.
Press【ENTER】to confirm	〖SP2 〗	Set point 2
Press【ENTER】to enter	〖2 OFF〗	The screen will display the calibrated function of Set Point 2. If required, press【ZERO】to change the function. There are 3 options: 2 OFF: turns off Set Point 2; 2 HI: the alarm will on when the load exceeds the set value; 2 LO: the alarm will on when the load not reach the set value.
Press【ENTER】to confirm	〖XXXXX〗	Press【ZERO】and【TARE】to change the set value of Set Point 2. If selected 2 OFF for Set Point 2, no need to change anything.
Press【ENTER】to confirm	〖g= 〗	Acceleration of gravity
Press【ENTER】to enter	〖9.XXXX〗	The screen will display the calibrated gravity value (default is 9.7930). If required, press【ZERO】and【TARE】to change the gravity value according to local area gravity value. The value range is from 9.783 to 9.832.
Press【ENTER】to confirm	〖FS=0X〗	Back to top of the parameter setting menu. Press【MODE】 anytime to save and exit.

The capacity you choose is related to the division and decimal points setting, below is a detailed list:

CAPACITY/DIVISION	FS (Full Scale）	Id (Division)	Pt（Decimal Point）
1000kg/0.5kg	10	05	1
2000kg/1kg	02	01	0
3000kg/1kg	03	01	0
5000kg/2kg	05	02	0
10000kg/5kg	10	05	0
15000kg/5kg	15	05	0
20000kg/10kg	20	10	0
30000kg/10kg	30	10	0
50000kg/20kg	50	20	0

100t, 200t use specail software, no need to set FS,Id,Pt.

3. Calibration

User must set all parameter before calibration

One Point Calibration

OPERATION	DISPLAY	ILLUSTRATION
Turn on dynamometer and indicator	〖 0〗	Make sure the dynamometer displays 〖 0〗 before calibration. You can hang tare weight first, and then turn on the scale to get zero reading.
Press【MODE】8 times	〖CLIbr〗	Access Calibration Procedure
Press 【ENTER】to enter	〖CAL 1〗	Enter one point calibration program
Press 【ENTER】to enter	〖CALSP〗	Zero point calibration
Press【ENTER】to confirm	〖LoAd 〗	Hanging test weight for calibrate
Press【ENTER】to continue	〖XXXXX〗	Will display full capacity of dynamometer which set in parameter setting, if your test weight capacity is not the same, Press【ZERO】and【TARE】 to adjust the test weight value.
Press【MODE】to confirm	〖-------〗	Confirm and store the calibration value
	〖 -oL- 〗	
	〖End〗	Calibration procedure finished
	〖XXXXX〗	Shows the current weight

Attention: the test weight load should be more than 20% of the full scale capacity. It is recommended to use full scale capacity load for calibration.

Three point calibration

If the dynamometer linearity is not good as you required, operate 3 point calibration as follows:

Turn on the dynamometer, make sure it display〖 0〗, even with tare weight.

When the indicator is power off, press【MENU】and don't release, at the same time, insert indicator into PC to get power

OPERATION	DISPLAY	ILLUSTRATION
Press【MENU】,insert to PC Press【MENU】,insert to PC	〖LOCAL〗	
Press 【ZERO】	〖CLInt〗	
Press【ENTER】	〖u 1.03〗	Display Current indicator Software version
	〖88888〗	Display Twice
	〖 Ert 〗	Display Twice
	〖CH=E3〗	Display current indicator channel E3
	〖U=X.XX〗	Display current indicator voltage is X.XX
	〖SETdC〗	
Press【MENU】	〖SEtrF〗	Dynamometer RF parameter setting
Press【MENU】	〖SEt3P〗	Enter into 3 point calibration
Press【ENTER】	〖CAL 3〗	Here take capacity 3000kg as example
Press【ENTER】	〖CALSP〗	Zero point calibration, wait until STB light on
Press【ENTER】	〖LoAd1〗	First load calibration
Hanging on first load e.g.1000kg		First load must exceed 20% capacity, Waiting until STB light on.
Press【ENTER】	〖03000〗	Display capacity
Press【TARE】【ZERO】	〖01000〗	press【ZERO】to adjust digit,press【TARE】to move digit , Input 1000, wait until STB light on
Press【ENTER】	〖LoAd2〗	Second load calibration
Hanging on second load e.g.2000kg		Second load must exceed Load 1+20% capacity, Waiting until STB light on.
Press【ENTER】	〖01600〗	Mention you Load2 must exceed 1600kg
Press【TARE】【ZERO】	〖02000〗	press【ZERO】to adjust digit,press【TARE】to move digit , Input 2000, wait until STB light on

Press【ENTER】	〖LoAd3〗	Third load calibration
Hanging on third load e.g.3000kg		Third load must exceed Load 2+20% capacity, Waiting until STB light on.
Press【ENTER】	〖02600〗	Mention you Load3 must exceed 2600kg .
Press【TARE】 【ZERO】	〖03000〗	press【ZERO】to adjust digit,press【TARE】to move digit , Input 3000, wait until STB light on
Press【ENTER】	〖------ -〗 〖 End 〗 〖 3000〗	
Press【MENU】	〖SET3P〗	
Press【MENU】	〖dFULt〗	
Press【MENU】	〖 ESC 〗	
Press【ENTER】	〖 3000〗	Calibration finish

First load: LOAD1 must larger than 20% capacity，and LOAD1<LOAD2<LOAD3, at the same time, between LOAD1 and LOAD2， LOAD2 and LOAD3, the interval must bigger than 20% capacity

CHAPTER 6 DISPLAY ILLUSTRATION

DISPLAY	ILLUSTRATION	DESCRIPTION
〖noSIg〗	Without wireless signal	Distance too far
〖SEtUP〗	Enter into parameter setting	
〖UAdJ 〗	Enter voltage calibration	
〖LoAd〗	Calibration point	
〖－－－－－ 〗	Exceed high limit	Tare weight cannot exceed full capacity
〖_____ 〗	Exceed low limit	Tare weight cannot be negative
〖-----〗	Waiting stable	
〖Err10〗	Weight less than Min. Capacity	Cannot accumulate the value
〖Err11〗	Accumulated times overflow	Cannot accumulate after 30 times
〖Err12〗	Accumulated weight overflow	Cannot accumulate after 99999
〖Err13〗	Error in repeat accumulation	Cannot accumulate one weight repeatedly
〖no***〗	Current accumulation times	
〖H****〗	Front four digit of accumulated	Total weight=front four digit + rare four digit
〖L****〗	Rare four digit of accumulated	Total weight=front four digit + rare four digit
〖 CLr 〗	Confirm to delete accumulated weight	In case of error deletion

〖noCLr〗	Give up deletion	
〖88888〗	Confirm deletion	
〖 ¯¯¯ 〗	Input value is too large	When you input tare or weight value
〖 ___ 〗	Input value is too small	When you input tare or weight value
〖noACC〗	No accumulated value	When you check accumulation
〖-oL0- 〗	Overload warning	Tare + Net weight exceed full capacity + 9e
〖-oL1- 〗	Overload warning	Tare + Net weight exceed full capacity 125%
〖-Lb- 〗	Low battery warning	Turns off automatically one minute later
〖U*.**〗	The voltage of installed batteries	
〖 End 〗	End	When parameter setting or calibration ready
〖 OFF 〗	Turn off	
〖Unstb〗	Input value before STB light on	
〖no519〗	No dynamometer found in range	Turn on the dynamometer and make sure they are within the receiving range

CHAPTER 7 TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
No display	Defective batteries	Replace batteries
	Defective button	Require service by authorized personnel
	Power button not properly pressed	Press and hold 【ON/OFF】 key for three seconds
Digits flash	Low battery	Replace batteries
Display does not respond to load changes	Faulty load cell or PCB	Require service by authorized personnel
	Out of calibration	Re- calibration
Display experiences excessive Zero drift between weighing	Dynamometer does not stabilize after turning on	Turn on the dynamometer and leave it for 3-5 minutes.
Displayed weight shows large error	Dynamometer not zeroed before applying weight	Press 【ZERO】 before applying weight on it
	Requires recalibration	Re- calibration
	Wrongly selected Kg or lb	Press 【UNIT】 key
Wireless distance shortened	Wireless indicator's batteries are low	Replace batteries

CHAPTER 8 RS232 PROTOCOL

Port : COM1
Baud Rate: 4800
Data Bits : 8
Stop Bits : 1
Parity : None

ASCII Code and Binary hybrid transmission

=	FLAG (1Byte)								Unit	Sign and Decimal
	F1	F2	F3	F4	F5	F6	F7	F8	(1Byte)	(1Byte)
preamble	STABLE	OVERLOAD	TARE	HOLD	PEAK	BETTERY	SPALARM		0x30：kg 0x31：Lb 0x32：N 0x33：kN 0x34：t	(+ and -) sign: High 4 bits Decimal: Low 4 bits
=	**0: no 1: YES**	**0: no 1: YES**	**0: no 1: YES**	**0: no 1: YES**	**0: no 1: YES**	**0: LOW**	**0: no 1: YES**			**0:POSITIVE 1:NEGATIVE 0:No Decimal 1:1 Decimal 2:2 Decimal 3:3 Decimal**

TTTTT	,	NNNNN/PPPPP	
5Byte	1Byte	5Byte	
Tare value	Separate symbol	Net value and Peak value	
0x30~0x39 Overload: 3SP+OL		0x30~0x39 Overload: 3SP+OL	

Example:

67.8kg: (F1 F2 F3 F4 F5 F6 F7 F8) 30 01 30 30 36 37 38，30 30 36 37 38

-68.1lb: (F1 F2 F3 F4 F5 F6 F7 F8) 31 F1 30 30 36 37 38，30 30 36 37 38

6.78kg: (F1 F2 F3 F4 F5 F6 F7 F8) 30 02 30 30 36 37 38，30 30 36 37 38