

ANYLOAD®

OCSD

Wireless Dynamometer

Operations Manual (V1904)



Anyload Weigh & Measure Inc.

Website: www.anyload.com

Email: info@anyload.com

TABLE OF CONTENTS

1.	Introduction and Product Features	2
2.	Safe Operation Guides	3
3.	Technical Data and Specifications	3
	3.1 Main Technical Date	3
	3.2 Technical Specifications	4
	3.3 Appearance Illustration	4
	3.4 Power Supply	5
4.	Display and Keys	6
	4.1 LCD Display	6
	4.2 Keys	6
5.	Dynamometer Functions Guides	7
	5.1 On/Off	7
	5.2 Zero	7
	5.3 Tare	8
	5.4 Peak Hold	8
	5.5 Accumulation	8
	5.5.1 Accumulation Search	8
	5.5.2 Accumulation Clear	9
	5.6 Battery Voltage	9
	5.7 Unit	9
	5.8 Return	10
	5.9 Set Point	10
6.	Wireless Indicator Operation Guides	11
7.	Parameter Settings and Calibration	13
	7.1 Key Functions	13
	7.2 Parameter Settings	13
	7.3 Calibration	17
	7.3.1 One-Point Calibration	17
	7.3.2 Three-Point Calibration	18
8	Display Illustration	20
9	Troubleshooting Guide	21
10	RS232 Protocol	22

1. Introduction and Product Features

Thank you for choosing Anyload OCSD Wireless Dynamometer with P180/P380/P580 Wireless Display. The OCSD Wireless Dynamometer is a well-built weighing instrument used for different weighing applications equipped with microprocessor for the precision and accuracy. Parameter settings and calibration are easy to configure through its wireless indicator.

Key Features include:

- 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 displayed on the LCD (with backlighting)
- Digits are 1 inch high for distant viewing.
- Two user-programmable Set-Point that can be used for safety and warning applications.
- The dynamometer is powered by 3 standard AA size alkaline batteries.
- All commonly used and internationally recognized units are available: Kilograms (kg), Tons (t), Pounds (lb), Newton (N) and kilo-Newton (kN).
- Operation through its wireless handheld indicator, easier to calibrate and configure
- 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

This manual provides installation, operation and configuration information of OCSD wireless dynamometer with its wireless indicator. It is recommended to go through the manual in details before installing, operating or configuring the scale.

2. Safe Operation Guides

1. Do not make lift beyond the rated load capacity of the dynamometer and its shackle(s).
2. Do not perform overhead weighing. Stay away when Dynamometer is in operation.
3. Do not perform weighing under strong wind, it may cause inaccurate readings.
4. Do not perform weighing in an environment with rapid temperature change, 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 worn out.
10. Always lift loads vertically.

3. Technical Data and Specifications

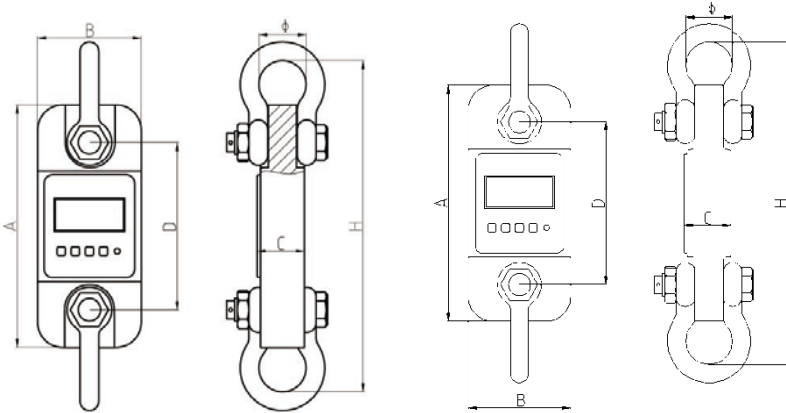
3.1 Main Technical Data

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°C ~ + 40°C
Operating Humidity	≤85% RH under 20°C
Wireless Distance	Up to 30m
Wireless Frequency	2.4GHz (default), 433MHz, 860MHz (optional)

3.2 Technical 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

3.3 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

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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

3.4 Power Supply

- Dynamometer battery: AA size alkaline batteries. 1.5V x 3
- Indicator battery: AA size alkaline batteries. 1.5V x 4
- Current: the dynamometer's average current is about 35mA (DC); 3 pcs. of new batteries can be last up to 40 hours under continuous operation.
- Wireless indicator average current is about 28mA (DC); 4 pcs. of new batteries can last up 80 hours under continuous operation.
- Low battery warning: When the digits at the display are flashing, it means the battery needs to be replaced. The Dynamometer or wireless indicator will turn off automatically if no activities detected after an hour.

4. Display and Keys

4.1 LCD Display

- a. 25mm (1") 5 digits LCD with all functions and units.
- b.  : Wireless signal: It shows up when the signal is stable; It disappears when no signal detected; Flashing when the signal is weak.
- c. : Battery Voltage, : Full, : Low, : Empty
- d. **PEAK** : Current value is in Peak Hold value (maximum value).
- e. **MEM** : Appears once when Parameter or Calibration value is stored to memory. Appearing in the display means the current value is added to Accumulated 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 "

4.2 Keys

- a. **ON/OFF key**
 - Press "**ON/OFF**" key to turn on the dynamometer.
 - At ON status , pressing "**ON/OFF**" key for 1 second, the dynamometer will turn off.

- b. **ZERO key**

When the dynamometer at no load is showing reading other than zero, pressing this key will zero the reading.

- c. **UNIT key**

Pressing the **UNIT**key, the scale will switch its unit and the screen will display the following units in order: "kg" → "lb" → "N" → "kN" → "t" → "kg".

- d. **PEAK key**

When load is changing and unstable, pressing this key will catch and display the maximum reading of the load and freeze the screen. Pressing again this key will return to normal weighing mode.

5. Dynamometer Functions Guides

Note: () means the key on the dynamometer

【 】 means the key on the indicator

〔 〕 means the display content

5.1 On/Off

➤ Turn ON dynamometer

OPERATION	DISPLAY	DESCRIPTION
(ON/OFF)	〔 88888 〕	Self-test, flashing twice
	〔 Ert 〕	Flashing twice
	〔 u=3.72 〕	Displays the current software version
	〔 CH=E3 〕	Displays the current wireless channel E3
	〔 5000 〕	Displays the max capacity, e.g. 5t
	〔 U=3.98 〕	Displays the current battery voltage
	〔 ——— 〕	Waiting to stable
	〔 0 〕	Displays the current load, generally equal to 0

➤ Turn OFF dynamometer

1	Manual Power OFF	Press (ON/OFF) Key for 1 sec.
2	Remote Power OFF	Press 【MENU】 or 【MODE】 Key at the indicator until it displays "OFF" then press 【ENTER】 key.
3	Auto Power OFF	Set the auto-off function in parameter settings. The dynamometer will display 〔 - 〕 if having no operation after 15 minutes to save power, and will turn off automatically after 60 minutes.

5.2 Zero

	OPERATION	DISPLAY	When the Dynamometer is on, generally it displays 〔 0 〕 . In case no weight on it but displaying other than '0', press this button to reset it.
1	Press (ZERO)	〔 0 〕	
2	Press 【ZERO】		

5.3 Tare

OPERATION	DISPLAY	When tare weight is hanged on the scale such as sling cable, pressing this key the “TARE” light will light on. The scale will display the net weight of the load.
Press 【TARE】	[[0]]	

5.4 Peak Hold

OPERATION	DESCRIPTION
Press (PEAK)	Catch and display the Maximum value of changing load.
Press (PEAK)	Scale will return to normal weighing mode.

5.5 Accumulation

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【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

5.5.1 Accumulation Search

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【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 【MENU】 or 【MODE】 key again		Return

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

5.5.2 Accumulation Clear

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【MODE】 key 7 times	〔CLEAR〕	
Press 【ENTER】	〔CLr 1〕	Ask if you want to clear or not
	〔noCLr〕	Press 【MENU】 key Cancel clear
	〔88888〕	Press 【ENTER】 key Confirm clear

5.6 Battery Voltage

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【MODE】 key 3 times, Display “dC”, press 【ENTER】 key.	〔U *.*〕	Displays the current battery voltage
Press 【MENU】 or 【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.

5.7 Unit

	OPERATION	DISPLAY	DESCRIPTION
1	Press 【MENU】 or 【MODE】 key 4 times	〔Unit 〕	
	Press 【ENTER】 key	〔Un=0〕	Un=0, the unit is in kg. Press 【ZERO】 or 【DATE】 to select unit from 0-4. 1 means lb; 2 means N; 3 means KN; 4 means ton.
	Press 【MENU】 or 【MODE】 key	〔 0 〕	Confirm chosen unit and return to weighing mode.
2	Press (UNIT)	〔Un=0〕	The dynamometer will display kg, lb, N, kN, ton in sequence.

5.8 Return

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【MODE】 key 9 times	⌈ ESC ⌋	
Press 【ENTER】 key	⌈ 0 ⌋	Return to normal weighing mode

For P580, press the Esc key in the keypad to return to normal weighing mode.

5.9 Set Point

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

_ 1 LO SP1 1 HI 2 LO SP2 2 HI

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【MODE】 key twice	⌈ SETUP ⌋	Confirm, enter into parameter setting program
Press 【ENTER】	⌈ SP1 ⌋	Set point 1
Press 【ENTER】 to confirm	⌈ 1 OFF ⌋	For new dynamometer, it displays 1 OFF. If already set, it will display the set value.
Press 【ZERO】 to choose	⌈ 1 HI ⌋ or ⌈ 1 LO ⌋	There are 3 choices: 1 OFF means you will not set a set point; 1 HI means the indicator will alarm when load exceeds the set value; 1 LO means the indicator will alarm when the load is smaller than the set value.
Press 【ENTER】 to confirm	⌈ 02000 ⌋	The screen should display 02000 if you set it to 2000.
Press 【ZERO】 and 【TARE】 to change value	⌈ 01000 ⌋	Set “1 HI” or “1LO” 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 already set, it will display the set value.
Press 【ZERO】 to choose	[[2 HI]] or [[2 LO]]	There are 3 choices: 2 OFF means you will not set a set point; 2 HI means the indicator will alarm when load exceeds the set value; 2 LO means the indicator will alarm when load is smaller than the set value.
Press 【ENTER】 to confirm	[[01200]]	The screen should display 01200 if you set it to 1200.
Press 【ZERO】 and 【TARE】 to change value	[[03000]]	Set "2 LO" or "2 HI" Value. e.g.3000kg

If you will not set a set point, just press the **【ENTER】** key until it displays the next function.

6. Wireless Indicator Operation Guides

P180	P380	P580	DESCRIPTION/FUNCTION
Push button switch	ON/OFF	ON & OFF	Pressing ON/OFF will turn on or turn off the indicator.
【 ZERO 】			When the screen displays reading other than zero during weighing mode, pressing the 【 ZERO 】 will return the scale to zero.
【 TARE 】			<ol style="list-style-type: none"> 1. When there is tare weight such as a container and the reading is stable, pressing this key will display "0" and "N" indicator will flash. 2. Putting the object(s) into the container, the dynamometer will display the net weight. 3. If the object(s) and container are removed, the dynamometer will display a negative value. 4. During Parameter Settings, it can also be used as a directional key.

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<p>【 ENTER 】</p>	<p>Used as function selection, normally combined with 【 MODE 】 or 【 MENU 】</p>
<p>【 PEAK 】</p>	<p>When load is changing and unstable, pressing this key will catch and display the maximum reading of the load and freeze the screen. Pressing this key again will return to normal weighing mode.</p>
<p>【 MODE 】 or 【 MENU 】</p>	<p>Used to browse or shift the modes / menus / functions of the scale, normally combined with 【 ENTER 】 to select the menu:</p> <ul style="list-style-type: none"> • Pressing 【 MODE 】 key once will display “OFF” and pressing 【 ENTER 】 will remotely turn off the dynamometer. The indicator will display “noSIG”, means no signal received. • Pressing 【 MODE 】 key twice will display “SETUP” and press 【 ENTER 】 to access its parameter settings. After setting the parameters, press the 【 MODE 】 key to confirm the settings and to return to weighing mode. • Pressing 【 MODE 】 key 3 times will display “dC”. Press 【 ENTER 】 to read current battery voltage. Press 【 MODE 】 key again to return to weighing mode. • Pressing 【 MODE 】 key 4 times will display “Unit”. Press 【 ENTER 】 to access unit selection. Press 【 ZERO 】 to select unit, press 【 MODE 】 again to return to weighing mode. • Pressing 【 MODE 】 key 5 times will display “ACCU”. Press 【 ENTER 】 to access Accumulation status. Press 【 MODE 】 to return to weighing mode. • Pressing 【 MODE 】 key 6 times will display “SACCU”. Press 【 ENTER 】 to access Accumulation Search status. Press 【 MODE 】 key to return to

	<p>weighing mode.</p> <ul style="list-style-type: none"> Pressing 【MODE】 key 7 times will display “CLEAR”. Press 【ENTER】 to access Accumulation clear status. The display will show “CLr 1”. Pressing 【TARE】 will show “noCLr”. Press 【MODE】 to return to weighing mode. Pressing 【MODE】 key 8 times will display “CLibr”. Press 【ENTER】 to enter into calibration program. When calibration is finished, press 【MENU】 to return to weighing mode. Pressing 【MODE】 key 9 times will display “ESC”. Press 【ENTER】 to return to weighing mode.
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7. Parameter Settings and Calibration

Setting the parameters and calibration can only be achieved using its wireless indicator (P180 or P380 or P580).

7.1 Key Functions

KEY			FUNCTION
P180	P380	P580	
【TARE】			Move to next digit
【ZERO】		【DATE】	Set digit’s value
【MENU】	【MODE】	【MENU】	Store and exit
【ENTER】			Confirm

7.2 Parameter Settings

OPERATION	DISPLAY	DESCRIPTION
Press 【MENU】 or 【MODE】 key twice	〔SETUP〕	Confirm to enter into parameter settings menu
Press 【ENTER】	〔FS=06〕	The screen displaying FS=06 means the

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		scale will be set to 6000kg capacity scale. If set to FS=10 then the capacity will be 10000kg.
Press 【ZERO】 or 【DATE】	〔 FS=05 〕	Assuming we are setting a 5-ton scale, set FS=05. Here are the available capacities that can be set:02 / 03 / 05 / 06 / 10 / 15 / 20/30/50/60/75/80.
Press 【ENTER】 to confirm	〔 Id=02 〕	The screen may display Id=02. This maybe the division set during previous calibration.
Press 【ZERO】 or 【DATE】 to choose	〔 Id=02 〕	Assuming we will set the 5-ton scale into 2kg division, so, we will set Id=02. Here are the available options: 01 / 02 / 05/10/20 circularly.
Press 【ENTER】	〔 Pt=0 〕	The screen may display Pt=0. This indicates the decimal point position. We will set it to Pt=0 for the 2kg division.
Press 【ZERO】 or 【DATE】 to choose	〔 Pt=0 〕	Choose decimal position. The options are 0/1/2/3 . 0=xxxxx, 1=xxxx.x, 2=xxx.xx, 3=xx.xxx. For Cap.5000kg ,we will set Pt=0
Press 【ENTER】 to confirm	〔 Ab=24 〕	Zero range settings. A: zero range by hand (manual); B: automatic zero range. There are 6 options: 0=0%F.S; 1=2%F.S; 2=4%F.S; 3=10%F.S; 4=20%F.S; 5=50%F.S. Generally do not change this parameter.
Press 【ENTER】 to confirm	〔 Cd=11 〕	If Dynamometer was already calibrated, it will display the calibrated value for zero tracking range (e.g Cd=11).
Press 【ZERO】 or 【DATE】 to choose	〔 Cd=12 〕	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 back to Cd=11 again. Generally choose Cd=12.
Press 【ENTER】 to confirm	〔LL=2〕	If Dynamometer was already calibrated, it will display the calibrated value for filter parameter (e.g LL=2).
Press 【ZERO】 or 【DATE】 to choose	〔LL=1〕	LL: filter parameter has 6 options from smallest to biggest. Before calibration, set LL=0, after calibration, set LL=1, generally choose LL=1.
Press 【ENTER】 to confirm	〔Un=0〕	If Dynamometer was already calibrated, it will display the calibrated value for the measurement unit (e.g Un=0).
Press 【ZERO】 or 【DATE】 to choose	〔Un=0〕	Set Un=0 for kg, Un=1 for lb, Un=2 for N, Un=3 for KN, Un=4 for t, Generally, choose Un=0.
Press 【ENTER】 to confirm	〔OFF 1〕	If Dynamometer was already calibrated, it will display the calibrated value for auto off function (e.g OFF 1).
Press 【ZERO】 or 【DATE】 to choose	〔OFF 2〕	Auto Off has 3 options: 0: turn off by hand; 1: if no operation, the screen will display ----- after 15minutes to save power; 2: if no operation, the screen will display ----- after 15minutes, and turn off automatically after 60minutes. Generally, choose OFF=2.
Press 【ENTER】	〔SP1〕	Set point 1
Press 【ENTER】 to confirm	〔1 OFF〕	The screen will display 1 OFF, if this parameter was set. It will display the set value.
Press 【ZERO】 or 【DATE】 to choose	〔1 HI〕 or 〔1 LO〕	There are 3 choices: 1 OFF means you will not set set point; 1 HI means the indicator will alarm when load exceeds the value you set; 1 LO means the

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		indicator will alarm when load is smaller than the value.
Press 【ENTER】 to confirm	〔02000〕	The screen should display 02000 if parameter is set to 2000.
Press 【ZERO】 or 【DATE】 and 【TARE】 to change value	〔01000〕	Set “1 HI” or “1 LO” Value. e.g. 1000kg
Press 【ENTER】	〔SP2〕	Set point 2
Press 【ENTER】 to confirm	〔2 OFF〕	The screen will display 2 OFF, if this parameter was set. It will display the set value.
Press 【ZERO】 or 【DATE】 to choose	〔2 HI〕 or 〔2 LO〕	There are 3 choices: 2 OFF means you will not set 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 than the value
Press 【ENTER】 to confirm	〔01200〕	The screen should display 01200 if parameter is set to 1200.
Press 【ZERO】 or 【DATE】 and 【TARE】	〔03000〕	Set “2 LO” or “2 HI” Value. e.g.3000kg, input 3000
Press 【ENTER】	〔g= 〕	Acceleration due to gravity
Press 【ENTER】 , 【ZERO】 or 【DATE】 and 【TARE】 to change value	〔9.7930〕	The screen will display the default or the calibrated (e.g 9.7930). User can change it according to local area gravity value. The value range is 9.783 - 9.832.
Press 【MENU】 or 【MODE】 key	〔 End 〕 〔 0 〕	Confirm above parameter setting. Exit parameter setting program.

Below is the recommended division and decimal position of the scale according to its full scale capacity:

CAPACITY/DIVISION	FS (CAP)	Id (DIVISION)	Pt (Decimal position)
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

7.3 Calibration

User must set all parameters before doing calibration.

7.3.1 One Point Calibration

OPERATION	DISPLAY	DETAILS
Turn on dynamometer and indicator	[[0]]	In these instructions, we assume we have 5000kg dynamometer. Make sure it is displaying [[0]] before starting the calibration. At this stage you can hang tare weight (if it is required) then reboot the dynamometer to get zero reading.
Press 【MENU】 or 【MODE】 8 times	[[CLibr]]	Access calibration menu
Press 【ENTER】 key	[[CAL 1]]	When [[CAL 1]] is displaying press enter to start the one point calibration
Press 【ENTER】 key	[[CALSP]]	In this stage we have to run the zero calibration. Make sure the scale has

		no load and it is in stable status.
Press 【ENTER】 key	〔LoAd 〕	Hang the span calibration weight. In this example we will use a 3000kg weight. Wait until STB signal appearing in the screen
Press 【ENTER】 key	〔05000〕	It will display the full scale capacity you set in parameter settings. The first digit will be flashing. Wait until “STB” signal is displaying on the screen.
Press 【ZERO】 or 【DATE】 and 【TARE】 key	〔03000〕	We will change the value to 3000 since we will be using a 3000kg calibration weight. Press 【ZERO】 to change value, press 【TARE】 to move to next digit.
Press 【MENU】 or 【MODE】 key	〔-----〕	Confirm, store and run the span calibration
	〔 -oL- 〕	
	〔End〕	When End is displaying meaning calibration is finished.
	〔 3000〕	
<p>Attention: The test load required in order the calibration will continue should be more than 20% of its FS capacity. It is highly recommended to use a test load of at least 80% of its FS capacity to get a better calibration result.</p>		

7.3.2 Three Point Calibration

If you want the scale to have high linearity result, calibrate the scale using the 3 point calibration procedure:

Turn on the dynamometer. Make sure it is displaying 〔 0〕 even there is tare weight on it.

Turn the indicator off. While the indicator is off, press and hold **【MENU】** or **【MODE】** key then press the ON/OFF key until it displays 〔LOCAL〕 . For P180, you must use its USB and insert it to a PC to get a power.

OPERATION	DISPLAY	DETAILS
Press 【MENU】 or 【MODE】 (insert to PC)	〔LOCAL〕	
Press 【ZERO】 or 【DATE】	〔CLInt〕	
Press 【ENTER】	〔u 1.03〕	Displays the Current indicator Software version
	〔88888〕	
	〔Ert〕	
	〔CH=E3〕	Displays the current indicator channel E3
	〔U=X.XX〕	Displays the current indicator voltage which is X.XX
	〔SETdC〕	
Press 【MENU】 or 【MODE】	〔SEtrF〕	Dynamometer's RF parameter setting
Press 【MENU】 or 【MODE】	〔SEt3P〕	Enter into a 3 point calibration
Press 【ENTER】	〔CAL 3〕	In these instructions, we will set 5000kg scale as an example. For the 5000kg scale, the recommended calibration weights are LOAD1: 1500kg, LOAD2: 3000kg, LOAD3: 5000kg
Press 【ENTER】	〔CALSP〕	Zero point calibration. Make sure the stable light is on before running this procedure
Press 【ENTER】	〔LoAd1〕	At this stage you will load the LOAD1 which is 1500kg (from our example). First load must exceed 20% of its capacity.
Press 【ENTER】	〔05000〕	It will display FS capacity you set in parameter settings.
Press 【TARE】 and 【ZERO】 or 【DATE】	〔01000〕	Change the value into 1500. Press 【ZERO】 to adjust digit's value and press 【TARE】 to move to next digit. Wait until STB light turns on.
Press 【ENTER】	〔LoAd2〕	Hanging the second load LOAD2 which is 3000kg (from our example). Second load must be at least 20% of its capacity greater than the first load. Wait until STB

		light turns on.
Press 【ENTER】	〔 01800 〕	Based on the first load, it will display the minimum weight required for the second load. From our example, it may display 1800.
Press 【TARE】 and 【ZERO】 or 【DATE】	〔 03000 〕	The LOAD2 shall be 3000 (from our example). Press 【ZERO】 to adjust digit's value and press 【TARE】 to move to next digit. Change the value here into Input 3000 and wait until STB light turns on.
Press 【ENTER】	〔 LoAd3 〕	Hanging the third load.
Press 【ENTER】	〔 03600 〕	Mention your Load3 must exceed 2600kg
Press 【TARE】 and 【ZERO】 or 【DATE】	〔 05000 〕	From our example LOAD3 shall be 5000kg. Change the value here into 5000 and wait until STB light turns on
Press 【ENTER】	〔 ----- 〕 〔 End 〕 〔 5000 〕	
Press 【MENU】 or 【MODE】	〔 ESC 〕	Press Menu or Mode multiple times until it displays Esc then press enter to exit calibration.

First load: LOAD1 must be larger than 20% of its FS capacity and $LOAD1 < LOAD2 < LOAD3$. Between LOAD1 and LOAD2 and LOAD2 and LOAD3, the interval must be greater than 20% of its FS capacity.

8. 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

ANYLOAD

		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 】	Ask if you really want 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 current battery	
【 End 】	End	When parameter setting or calibration ready
【 OFF 】	Turn off	
【Unstb】	Input value before STB light on	

9. Troubleshooting Guides

PROBLEM	POSSIBLE CAUSE	SOLUTION
No display	Defective battery	Replace
	Defective button	Requires authorized service
	Power button not properly pressed	Press and hold ON/OFF key for three seconds
Digits flash	Low battery	Replace battery
Display does not respond to load changes	Faulty load cell or PCB	Requires authorized service
	Out of calibration	Re- calibration
Display experiences excessive Zero drift between weighing	Dynamometer does not stabilize after turning on	After turning on, heating 3-5 minutes.
Displayed weight shows large error	Dynamometer not Zeroed before applying weight	Depress ZERO before applying weight
	Requires recalibration	See calibration
	Kg/lb wrong selection	See operation
Wireless distance shortened	Wireless indicator's battery is low	Replace battery.

10. RS232 Protocol

Pre-code		Data(ASCII)					0X +/- (0 means + F means -) X is decimal position	39 39 Commodity number	F0 Stable Signal F0: (stable) 00: (unstable)	F0 Wireless Signal F0: Have signal 00: Without signal
FF	AA	data (H)	data	data	data	data (L)				

RS-232 Setup Instructions

Communication Configuration

Port : COM1

Baud Rate: 4800

Data Bits : 8

Stop Bits : 1

Parity : None

Display mode HEX

Anyload Weigh & Measure Inc.

Website: www.anyload.com

Email: info@anyload.com

Fax: +1 866 612 9088

North America Toll Free: 1-855-ANYLOAD (269 5623)