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USER MANUAL

Digital Compact Bench Scale

Model no. 412672, 412673, 412674, 412675

User Manual

Power Source

100~240V 50/60hz AC INTPUT

9V/0.5A DC OUTPUT 4.5W
7.4V rechargeable lithium battery

Power Consumption

Approx. 12mA

Approx. 36mA with backlight

Approx. 48mA with backlight and RS232 interface

Battery hours per charge

Battery life Backlighting on: 100 hours

Battery life Backlighting off: 150 hours

Interface RS232

## LOADCELL connection (for indicator)

PIN1 : E +   PIN2 : E-   PIN3 : S+   PIN4 : S-   PIN5 : GND

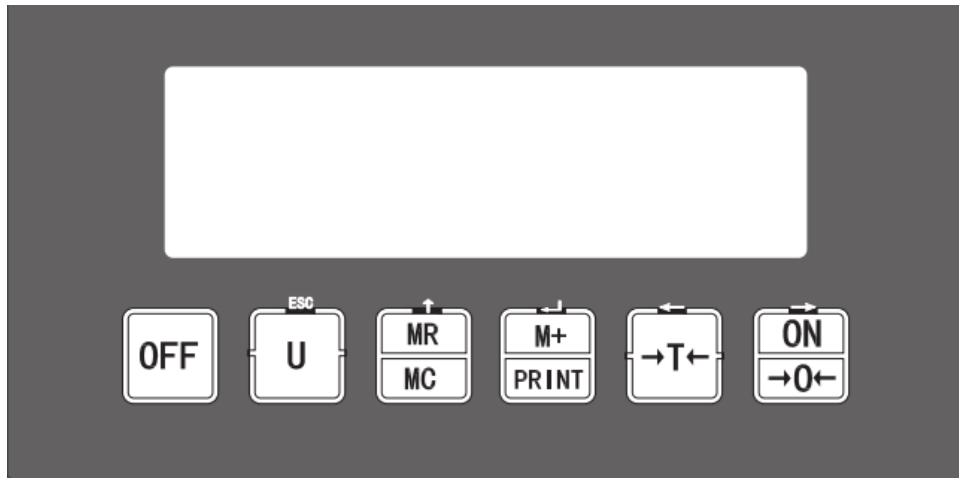## Display settings:

Turn on the scale, press and hold the ON/ZERO/▶ key until the countdown sequence has completed. The LCD display will show main number 1007 .

Turn on the scale, press and hold the M+/PRINT/↵ key until the countdown sequence has completed. The LCD display will show auxiliary number 61 , release the key and the scale will off.

Display
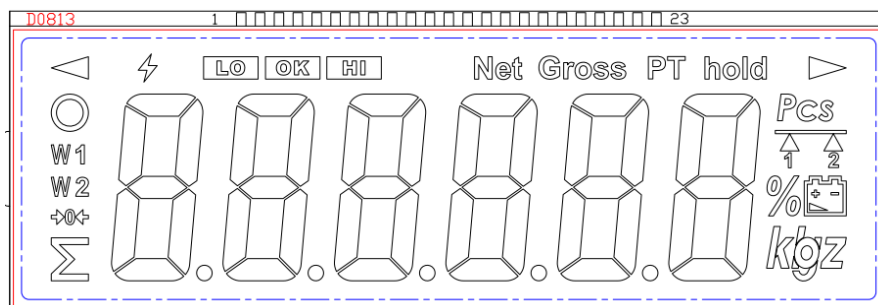
Key description

OFF key:
Press and hold the OFF key and the display will show "oFF" for 2 seconds then the scale will turn off automatically.

ON/ZERO/▶ key:
Press the ON key to turn on the scale. The scale will start self-adjusting sequence then will stabilize in 0.

ZERO : To reset the weight to 0, but the displayed weight value has to be less than ± 2% of maximum capacity.

▶ : To move one space to the right or upward in setup mode.
To the right
000000 → 000000 → 000000 → 000000 → 000000 → 000000
Upward
LF 1 → LF 2 → LF 3 → …… → LF 8
UF-1 → UF-2 → UF-3→ ……→ UF-9
ECF-1 → ECF-2 → ECF-3

UNITS/ESC key:
UNITS: To select desired weighing unit.

   When set and change into PCS、PCS marker light、Optional number by ▲ switch: C 10PCS、C 20PCS、C 50PCS、C 100PCS、C 200PCS、put the corresponding number of objects on the scale, after the stable press ↵ key, complete the number of samples.

ESC : To escape (exit) setting in setup mode.

TARE/◄ key:

TARE : To subtract the container weight. Maximum tare = full capacity

◄ : To move one space to the left or downward in setup mode.

To the left

000000̲ → 00000̲0 → 0000̲00 → 000̲000 → 00̲0000 → 0̲00000

Downward

LF 8 → LF 7 → LF 6 → ...... → LF 1

UF-9 → UF-8 → UF-7→ ......→ UF-1

ECF-3 → ECF-2 → ECF- 1

MR/MC/▲ key:

MR: To display total accumulation count and total accumulated weight

MC : Memory Clear key to clear all accumulated weight data (When the weighing unit is changed (ex: from kg to lb), all accumulated data will be cleared automatically) (display cursor M+ lights off)

▲ : To increase values upward in setup mode.

  232 0 → 232 1 → 232 2 → 232 3 → ...... → 232 6

M+/PRINT/↵ key:

Accumulation key: The M+ key can be used to accumulate weight, when display above 999999, can not to the next accumulate.

PRINT : Manually transmitting data through RS232 to computer or printer at normal weighing mode (RS232 setup must be set at keyboard transmission 232 3 or 232 6)

↵ : Works as enter key in setup mode

※ Error messages:

    Err N   Unstable internal count

    -OL-   Overload, when the weight is heavier than the full capacity + 9d of the scale

User Manual

Functions Setup

Approval Calibrations and Functions Setup (Lock section) LF1 ~ 8
Standard Functions Setup   UF–1 ~ 9
Standard Calibrations   ECF–1 ~ 3

> **Standard Calibrations**:
> Press the TARE/◄ key and the M+/PRINT/↵ key in weighing mode to start Standard Calibrations
> ECF-1   Weight Calibration (Zero and Span)
> ECF-2   Zero Calibration
> ECF-3   Span Calibration
> ※ When the scale is programmed for Approval (LF 6), standard calibration will be locked

ECF-1   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◄ ↑ ↓ ►

ECF-2   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◄ ↑ ↓ ►

ECF-3   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

ECF-1 Weight Calibration :

ECF-1   Press the ↵ key to start Weight Calibration (Press the ESC key to exit back to weighing mode)
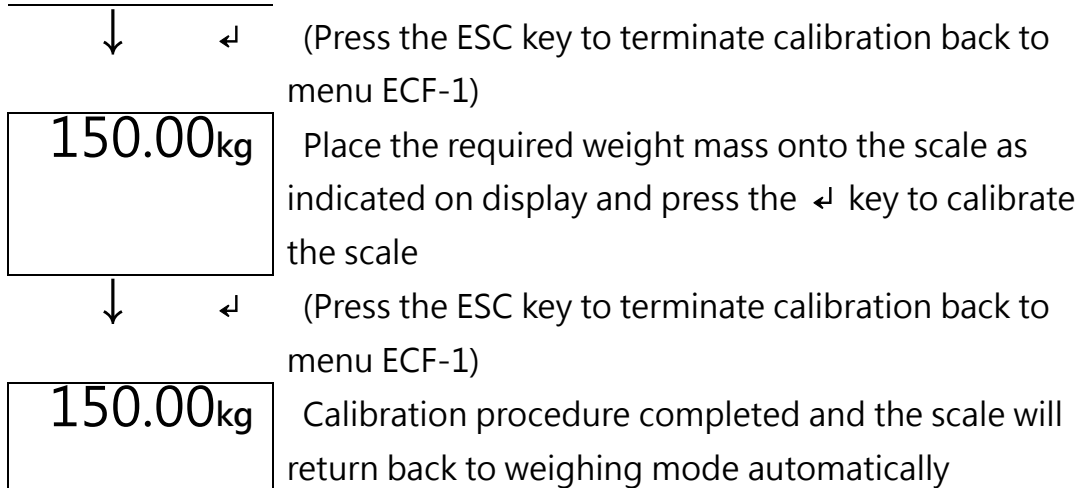
↓   ↵

CALZ   Press the ↵ key to calibrate zero point (Press the ESC key to terminate calibration back to menu ECF-1)

↓   ↵

150.00kg   Use ◄,►,▲ and then ↵ key to enter the weight to be calibrated

↓ ↵ (Press the ESC key to terminate calibration back to menu ECF-1)

| 150.00kg | Place the required weight mass onto the scale as indicated on display and press the ↵ key to calibrate the scale |

↓ ↵ (Press the ESC key to terminate calibration back to menu ECF-1)

| 150.00kg | Calibration procedure completed and the scale will return back to weighing mode automatically |

ECF-2 Zero Calibration :

| ECF-2 | Press the ↵ key to start Zero Calibration (Press the ESC key to exit back to weighing mode) |

↓ ↵

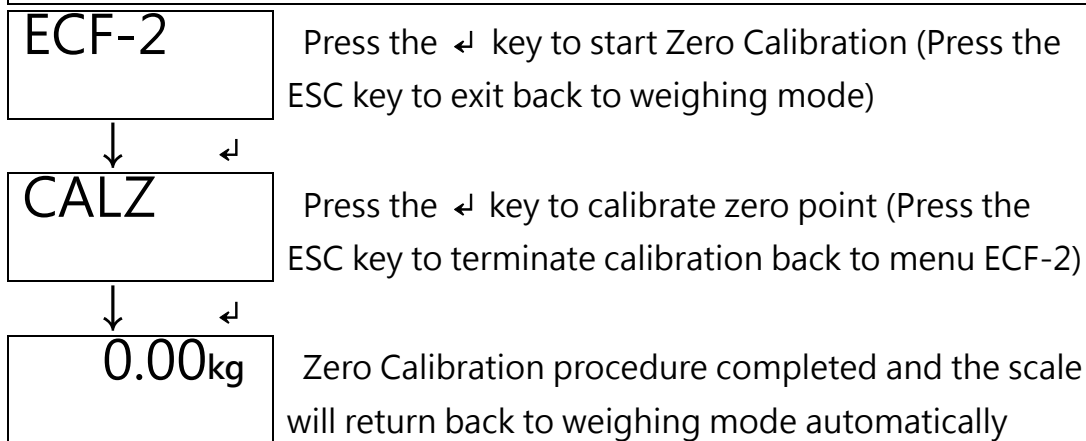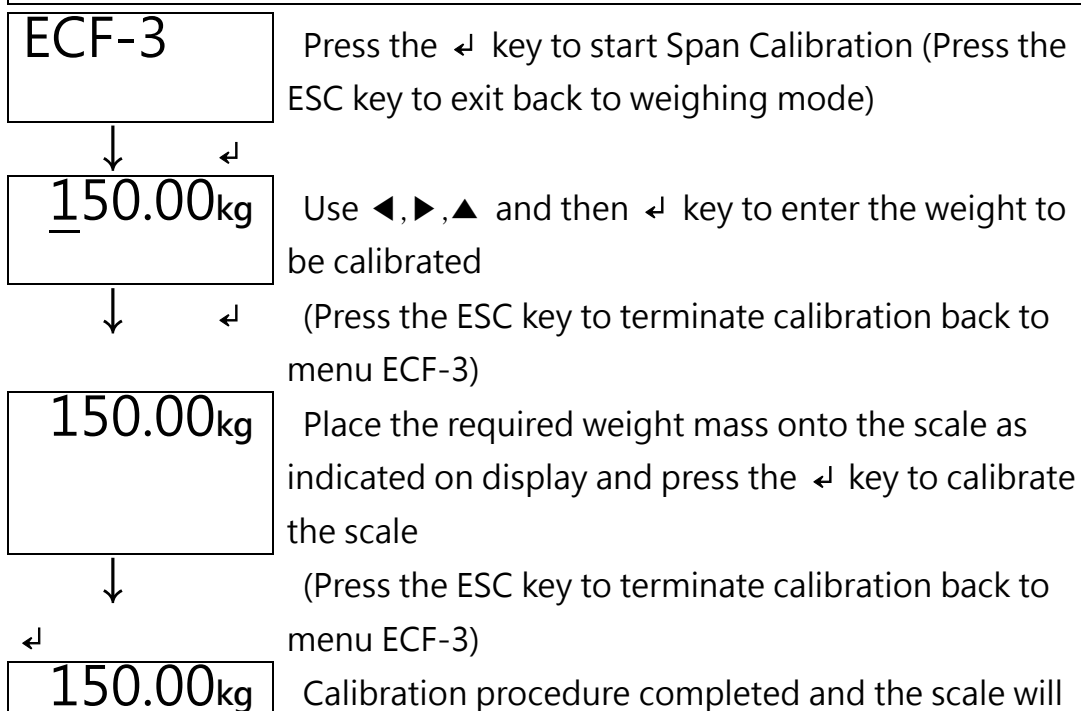| CALZ | Press the ↵ key to calibrate zero point (Press the ESC key to terminate calibration back to menu ECF-2) |

↓ ↵

| 0.00kg | Zero Calibration procedure completed and the scale will return back to weighing mode automatically |

ECF-3 SPAN Calibration :

| ECF-3 | Press the ↵ key to start Span Calibration (Press the ESC key to exit back to weighing mode) |

↓ ↵

| 150.00kg | Use ◀,▶,▲ and then ↵ key to enter the weight to be calibrated |

↓ ↵ (Press the ESC key to terminate calibration back to menu ECF-3)

| 150.00kg | Place the required weight mass onto the scale as indicated on display and press the ↵ key to calibrate the scale |

↓ (Press the ESC key to terminate calibration back to menu ECF-3)

↵

| 150.00kg | Calibration procedure completed and the scale will |

```
┌──────────────┐
└──────────────┘ return back to weighing mode automatically
```

┌──┐
│ **Standard Functions Setup** :   │
│ Press the ON/ZERO/▶ and the M+/PRINT/↵ key in weighing mode │
│ to start Standard Functions Setup   │
│   UF-1   Internal Value   │
│   UF-2   Check Weighing   │
│   UF-3   Auto Power-off   │
│   UF-4   Backlight   │
│ ✤UF-5   Hold   │
│   UF-6   RS232 Output   │
│ ✤UF-7   ADC Update Rate   │
│ ✤UF-8   Display Condition at Zero   │
│   UF-9   Gravitational (G value) Pre-Calibration   │
│ ✤ marks function locked when LF 6 is set as "Approval Version" │
└──┘

UF-1   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◀ ↑ ↓ ▶

UF-2   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode
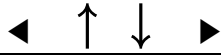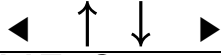
◀ ↑ ↓ ▶

UF-3   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◀ ↑ ↓ ▶

UF-4   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◀ ↑ ↓ ▶

UF-5   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◀ ↑ ↓ ▶

UF-6   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◀ ↑ ↓ ▶

| UF-7 | Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode |

◄ ↑ ↓ ►

| UF-8 | Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode |

◄ ↑ ↓ ►

| UF-9 | Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode |

| **UF-1 Internal Value:** |

| UF-1 | Press the ↵ key to see the internal value or press the ESC key to exit menu and back to weighing mode |

↓   ↵

| 2704565 | Press the ↵ key to continue or the ESC key to exit back to menu UF-1 |

↓   ↵

| | Press the ↵ key to see the battery voltage or the ESC key to exit back to menu UF-1 |

| UF-1 | Use ► and then ↵ keys to continue with other setups or press the ESC key to exit menu and back to weighing mode |

| **UF-2 Check Weighing:** |

```
    0000.0L     Set LO (low) weight
    0000.0H     Set HI (high) weight
    O  0 0 0     Program I/O conditions
        A B C
A --Buzzer Conditions: 0 = Stable not required to buzz
                       1 = Stable required to buzz
B -- LCD display Output: 0 = Stable not required to output
                         1 = Stable required to output
C -- Buzzer beeps at:    0 = Buzzer off
```

	1 = Over low limit and under high limit
	2 = Under low limit and over high limit

※ LO set as 0 will clear all check weigh values

※ Check weighing conditions can be set independently for each of the weighing units and counting mode

※ All settings will be saved until manually cleared

※ Last entry will be displayed before setup

※ This function is locked when UF-5 is set as ″HOLD 1″

UF-2 — Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓ ↵

0000.0L — Use ◀,▶,▲ and then ↵ key to set LO weight value (Press the ESC key to exit the setup and back to menu UF-2)

↓ ↵

0000.0H — Use ◀,▶,▲ and then ↵ key to set HI weight value (Press the ESC key to exit the setup and back to menu UF-2)

↓ ↵

O 000 — Use ◀,▶,▲ and then ↵ key to set I/O SET value (Press the ESC key to exit the setup and back to menu UF-2)

↓ ↵

UF-2 — Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

---

UF-3 Auto Power-off :

AoFF 00 Auto power-off disable

AoFF 01 The scale turns off automatically in 1 minute when the scales not in operation and weight at 0

Auto power-off timer up to 99 minutes (AoFF01~AoFF 99)

※ Factory default: AoFF 10

UF-3 — Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓

↵

AoFF<u>10</u>

Use ◀ 、▶ 、▲ and then ↵ key to enter Auto Power-off time

↓ (Press the ESC key to exit the setup and back to menu UF-3)

↵

UF-3

Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

UF-4 Backlight :

Lit oFF :Backlight off   Lit A :Auto light up   Lit on :Backlight on
※ Factory default: Lit   A

UF-4

Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓ ↵

Lit A

Use ▲ and then ↵ key to select backlight modes (Press the ESC key to exit the setup and back to menu UF-4)

↓ ↵

UF-4

Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

UF-5 Hold :

HOLD 0   Hold function off
HOLD 1   Animal (motion) Hold function
PCt XXX   To set the range from 001 ~ 100 of the animal hold
           (for HOLD 1 only)
timEXX   To set 1 、、、2 、、、4 、、、8 、、、16 、、、32 、、、64 times within the hold range
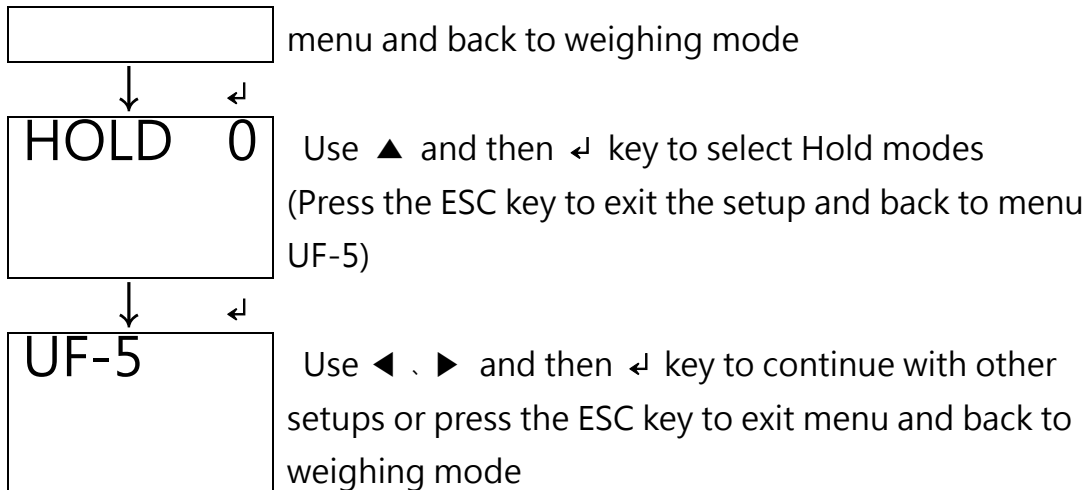   (for HOLD 1 only)
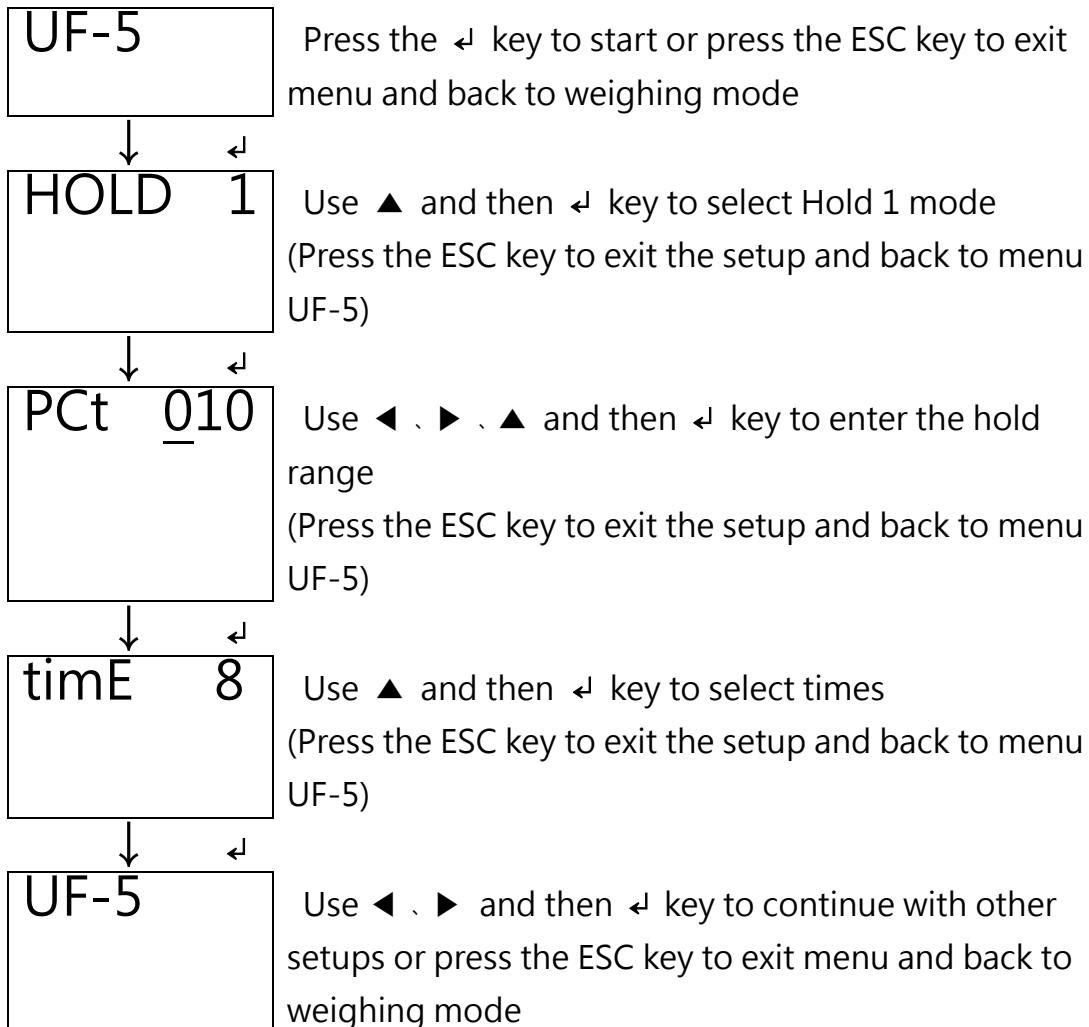※ This function is locked when LF 6 is set as   "Approval Version"
※ Factory default: HOLD 0

UF-5

Press the ↵ key to start or press the ESC key to exit

	menu and back to weighing mode

↓   ↵

HOLD 0	Use ▲ and then ↵ key to select Hold modes
	(Press the ESC key to exit the setup and back to menu UF-5)

↓   ↵

UF-5	Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

HOLD 1 mode :

UF-5	Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓   ↵

HOLD 1	Use ▲ and then ↵ key to select Hold 1 mode
	(Press the ESC key to exit the setup and back to menu UF-5)

↓   ↵

PCt 010	Use ◀ 、▶ 、▲ and then ↵ key to enter the hold range
	(Press the ESC key to exit the setup and back to menu UF-5)

↓   ↵

timE 8	Use ▲ and then ↵ key to select times
	(Press the ESC key to exit the setup and back to menu UF-5)

↓   ↵

UF-5	Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

UF-6   RS232 :
232   0   RS232 disable
232   1   Stable output – Format 1

| 232 | 2 | Stream output – Format 1 |
232	3	Manual output – Format 1
232	4	Stable output – Format 2
232	5	Stream output – Format 2
232	6	Manual output – Format 2
232	7	Manual accumulate output – Format 3
232	8	Auto accumulate output – Format 3
232	9	Manual accumulate output – Format 4
232	10	Auto accumulate output – Format 4

RS232 Baud rate

b 1200	Baud rate 1200
b 2400	Baud rate 2400
b 4800	Baud rate 4800
b 9600	Baud rate 9600
b19200	Baud rate 19200
b38400	Baud rate 38400

Communication Protocol

UART signal of EIA-RS232 C

Format :

1. Serial output: 1200 / 2400 / 4800 / 9600 / 19200 / 38400 BPS

2. Data bits : 8 BITS

3. Parity bits : None

4. Stop bits : 1 BIT

Start bit   Data bits   Stop bits
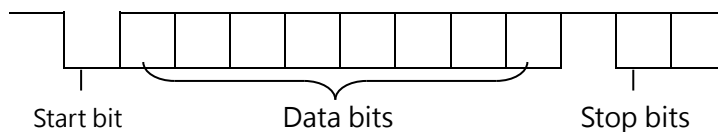
Format 1 (232   1 ~ 3) :

HEAD1 (2 BYTES)		HEAD2 (2 BYTES)	
OL	- Over Load		
ST	- Stable	NT	- Net Weight
US	- Unstable	GS	- Gross Weight

Fixed 18 BYTES ASCII   (kg g t lb)

1	2	1	1	2	1	1	2	3	4	5	6	7	8	1	2	1	2

HEAD1 , HEAD2 ,   DATA   UNIT   CR   LF
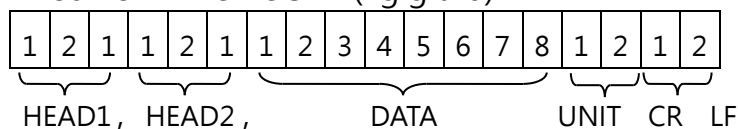
Fixed 21 BYTES ASCII   (tl.T lboz)
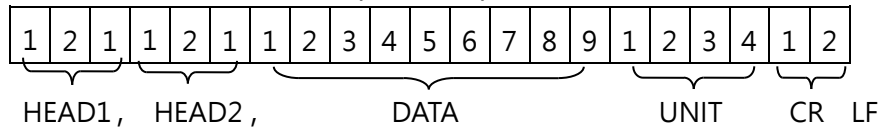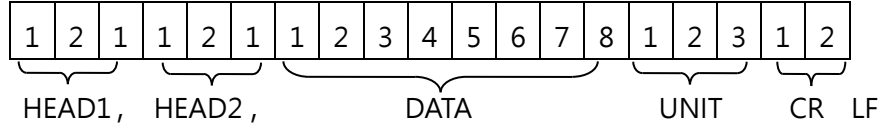
1	2	1	1	2	1	1	2	3	4	5	6	7	8	9	1	2	3	4	1	2

HEAD1,   HEAD2,   DATA   UNIT   CR LF

Fixed 19 BYTES ASCII   (pcs)

1	2	1	1	2	1	1	2	3	4	5	6	7	8	1	2	3	1	2

HEAD1,   HEAD2,   DATA   UNIT   CR LF

Output examples :

1. Example +0.876 kg Stable net weight :

S	T	,	N	T	,	+	0	0	0	.	8	7	6	k	g	0D	0A

2. Example -1.568 lb unstable gross weight :

U	S	,	G	S	,	-	0	0	1	.	5	6	8	l	b	0D	0A

3 Example -20. 5.40 lb oz unstable gross weight :

S	T	,	G	S	,	-	1	0	.	0	5	.	4	0	l	b	o	z	0D	0A

4 Example +1000 pcs stable net weight :

S	T	,	N	T	,	+	0	0	0	1	0	0	0	p	c	s	0D	0A
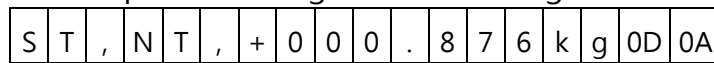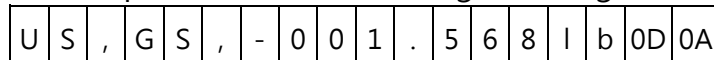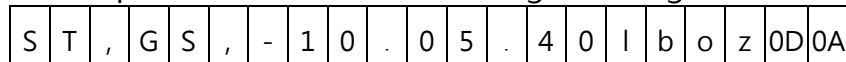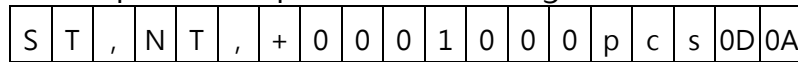
Format 2 (232   4 ~ 6) :

Fixed 12 BYTES ASCII   (kg g t lb)

1	2	3	4	5	6	7	8	1	2	1	2

DATA   UNIT   CR LF
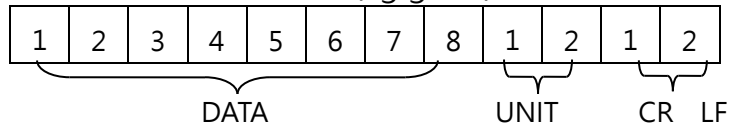
Fixed 15 BYTES ASCII   (tl.T lboz)
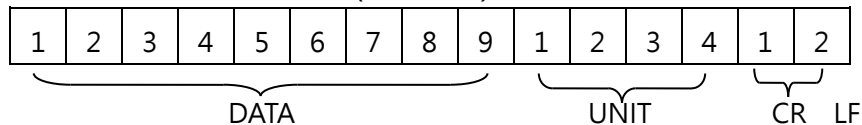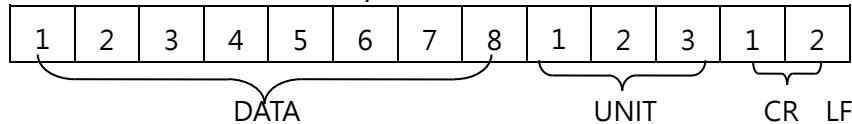
1	2	3	4	5	6	7	8	9	1	2	3	4	1	2

DATA   UNIT   CR LF

Fixed 13 BYTES ASCII   (pcs)

1	2	3	4	5	6	7	8	1	2	3	1	2

DATA   UNIT   CR LF

Output examples :

1. Example +0.876 kg stable net weight :

+	0	0	0	.	8	7	6	k	g	0D	0A

2. Example -1.568 lb unstable gross weight :

-	0	0	1	.	5	6	8	l	b	0D	0A
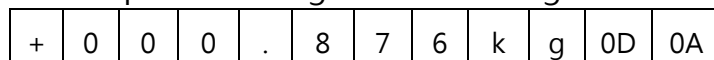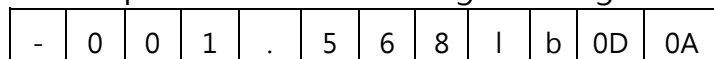
3 Example -20. 5.40 lb oz unstable gross weight :

| - | 1 | 0 | . | 0 | 5 | . | 4 | 0 | l | b | o | z | 0D | 0A |

4 Example +1000 pcs stable net weight :

| + | 0 | 0 | 0 | 1 | 0 | 0 | 0 | p | c | s | 0D | 0A |

※ Factory default: 232　0

Remarks:

Format 1 output examples:

```
ST,GS,+001.000kg
```

Format 2 output examples:

```
+001.000kg
```

Format 3 output examples:

```
S/N    WT/kg
_____
0001     1.000
0002     2.000
_____
0002     3.000
```

Format 4 ooutput examples:

```
TICKET NO.0001
G        3.000kg
T        1.000kg
N        2.000kg


TOTAL NUMBER
OF TICKETS 0001
TOTAL
NET      2.000
```

● Format 3 and format 4 if you want to print the total weight, long press the MC key, and the accumulative weight will be removed.

UF-6

Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓

↵

232　0

Use ▲ and then ↵ key to enter RS232 output

	format
	(Press the ESC key to exit the setup and back to menu UF-6)

↓   ↵
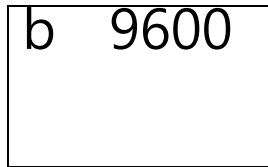
b 9600	Use ▲ and then ↵ key to select baud rate
	(Press the ESC key to exit the setup and back to menu UF-6)
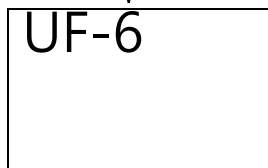
↓   ↵

UF-6	Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

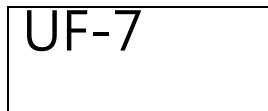**UF-7　ADC Update Rate :**

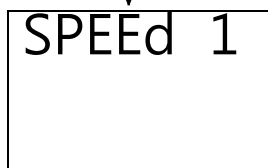SPEEd　1　　Standard speed 15 hz

SPEEd　2　　High speed　　30 hz

SPEEd　3　　Low speed　　7.5 hz

※　This function is locked when UF-5 is set as　"HOLD 1"

※　This function is locked when LF 6 is set as　"Approval Version"
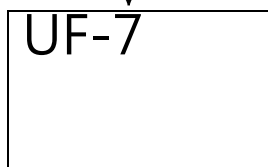
※　Factory default: SPEEd　1

UF-7	Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓   ↵

SPEEd 1	Use ▲ and then ↵ key to select ADC speed
	(Press the ESC key to exit the setup and back to menu UF-7)

↓   ↵

UF-7	Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

UF-8 Zero Weight Display Condition :

ZP　0　Off

ZP　1　One division not to display at zero

ZP　2　Two divisions not to display at zero

ZP	3	Three divisions not to display at zero
ZP	4	Four divisions not to display at zero
ZP	5	Five divisions not to display at zero

※ This function is locked when UF-5 is set as "HOLD 1"

※ This function is locked when LF 6 is set as "Approval Version"

※ Factory default: ZP　0

UF-8　　　　Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓　　↵

ZP　　0　　　Use ▲ and then ↵ key to select how many divisions not to display at zero

(Press the ESC key to exit the setup and back to menu UF-8)

↓　　↵

UF-8　　　　Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

---

UF-9　Standard Gravitational (G value) Pre-Calibration:

Approval Model: When the CAL switch is at OFF and LF 6 is set as "Approval Version" ,the gravitational value can not be modified.

Non-approval Model: Gravitational value will be saved at -00- and will be replaced each time a new value has been entered.

※ The G value will be denied when the value is greater than 9.83217 (Polar G value) or less than 9.78031 (Equator G value)

※ Factory Default: 9.79450

UF-9　　　　Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓　　↵

-00-　　　　The display will show the value for 1 second

↓

9.79450　　　Use ◀ 、▶ keys to see previous entered values. The display will stay at 00 if no value has been entered

---

◀ ↑ ↓ ▶

9.79450   Press the ↵ key to confirm the G value

↓   ↵

UF-9   Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and back to weighing mode

UF-10   Optional original device setting:

UF-10   Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

↓   ↵

INTF   The display will show "INTF"

↓   ↵

USB   Press the ↵ key to enter the option menu,Use ◀ 、▶ keys to see other
options," USB" ," BT" ," WIFI" ," ENET" ," " UDISK"

◀ ↑ ↓ ▶

INTF   Press the ↵ key to confirm the option.

◀ ↓ ▶ ↵

MODE   Press the ↵ key to enter the mode menu,Use ◀ 、▶ keys to select the optional original device working or not.

◀ ↓ ▶ ↵

IP_1   Press the ↵ key to Set IP adress

◀ ↓ ▶ ↵

IP_1   Press the ↵ key to Set IP adress

......

UF-10

intF	USB、UdiSK、Bt、WiFi、EnEt
ModE	ON、OFF
iP_1	CB20 IP address Settings (four section)
iP_2	
iP_3	
iP_4	
MASK_1	CB20 TM mask address Settings (four section)
MASK _2	
MASK _3	
MASK _4	
GAtE_1	CB20 gateway address Settings (four section)
GAtE _2	
GAtE _3	
GAtE _4	
riP_1	PC IP address (four section)
riP _2	
riP _3	
riP _4	
rPort	PC port
SSid_1	WiFi name that needs to be connected
SSid_2	

Approval Calibrations and Functions Setup (Lock section):

Turn on the scale and press and hold the ON/ZERO/ ▶ key until the scale will show LF 1

LF 1　Weight Calibration

LF 2　Spec Calibration

LF 3　Linearity Calibration

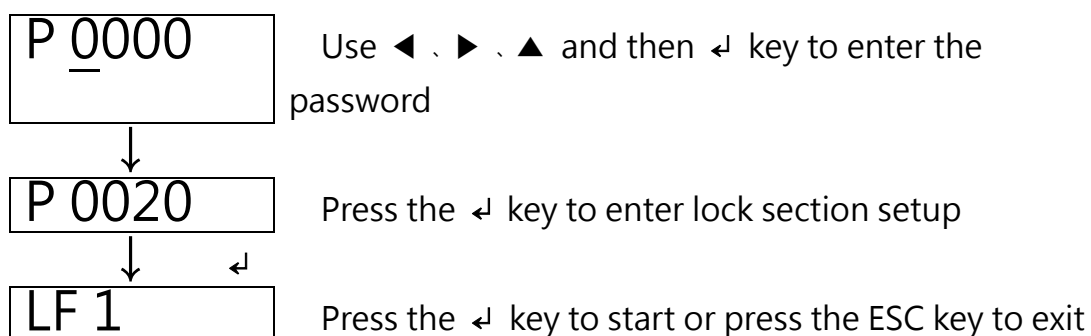LF 4　ADC Update Speed

LF 5　Zero Weight Display Condition

LF 6　Approval Conformity

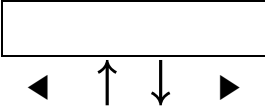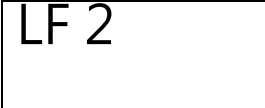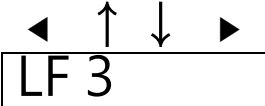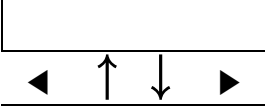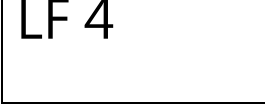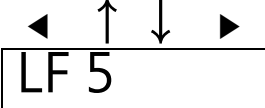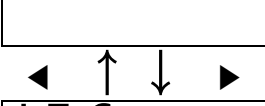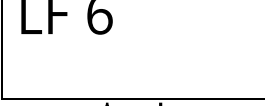LF 7　Gravitational (G value) Pre-Calibration

LF 8　Zero Weight Display Condition

※　CAL switch has to be ON

※　Password is required to use Lock Section when LF 6 is set as
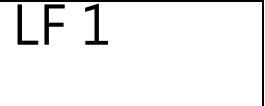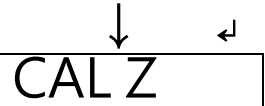　　"none" and CAL switch is OFF

| P 0000 | Use ◀ 、▶ 、▲ and then ↵ key to enter the password |

↓

| P 0020 | Press the ↵ key to enter lock section setup |

↓　↵

| LF 1 | Press the ↵ key to start or press the ESC key to exit |

◄ ↑ ↓ ►

menu and the scale will restart automatically

LF 2

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

◄ ↑ ↓ ►

LF 3

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

◄ ↑ ↓ ►

LF 4

Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode

◄ ↑ ↓ ►

LF 5

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

◄ ↑ ↓ ►

LF 6

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

◄ ↑ ↓ ►

LF 7

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

◄ ↑ ↓ ►

LF 8

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

---

LF 1 Weight Calibration:
※ Calibration can be done with any weight, but the weight should not be less than 1/100 of the max. capacity and not to exceed the max. capacity

LF 1

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

↓   ↵

CAL Z

Press the ↵ key to start Zero Calibration
(Press the ESC key to terminate calibration back to

```
┌──────────────┐  menu LF 1)
└──────────────┘
      ↓      ↵
```

150.00 kg   Use ◄ 、► 、▲ and then ↵ key to enter the weight to be calibrated
(Press the ESC key to terminate calibration back to menu LF 1)

```
      ↓      ↵
```

150.00 kg   Place the required weight mass onto the scale as indicated on display and press the ↵ key to calibrate the scale
(Press the ESC key to terminate calibration back to menu LF 1)

```
      ↓      ↵
```

150.00 kg   Calibration procedure completed and the scale will return back to weighing mode automatically

---
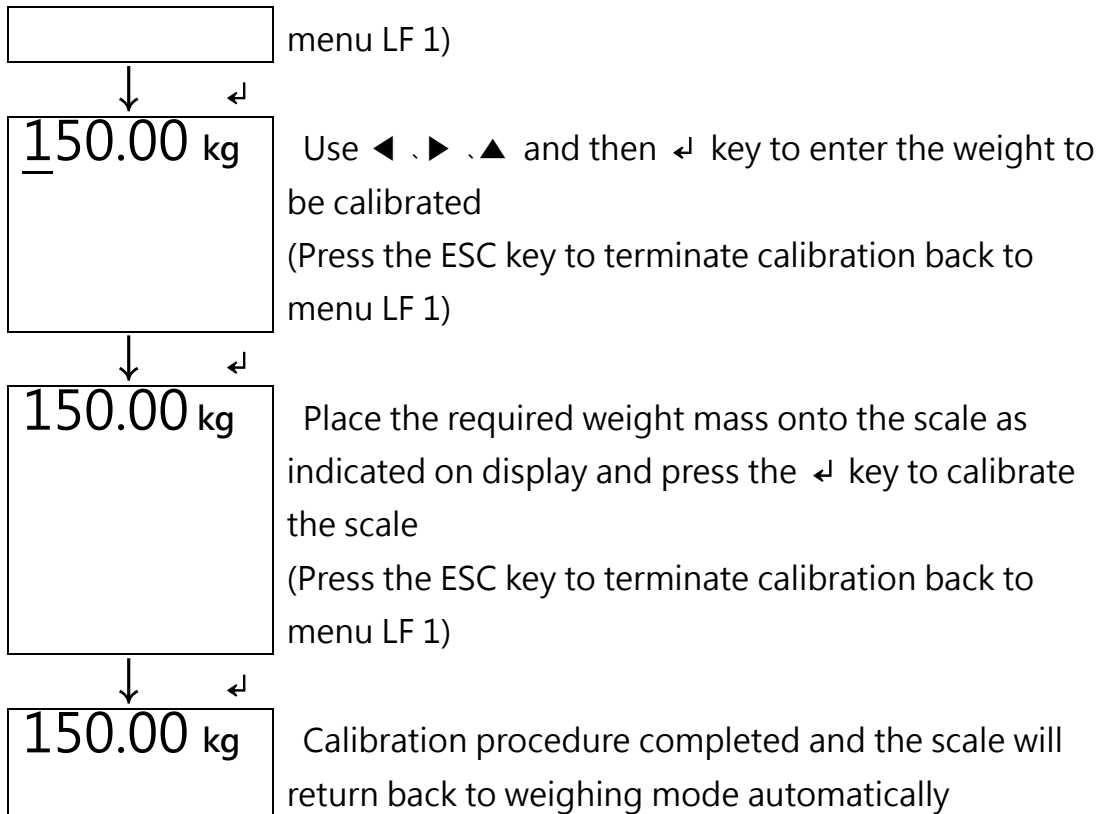
LF 2   Spec Calibration:

First step

2 6 2 1 4 4 Display Internal Value

Second step

1 0 0 0 0 1
A   B   C   D   E   F

A : Metric System   0 : None   1 : kg   3 : g

B : American System   0 : None   1 : lb

C : Other Units   0 : None

D : PCS   0 : Off

                         1 : On

E : Duo range   0 : Off

                         1 : MULTI INTERVAL

                         2 : MULTIRANGE

F : Calibration Unit   1 : Metric units as calibration unit

                         2 : American units as calibration unit

※ The scale will not allow to continue to the next setup step if an error has occurred during the programming

---

Third step

| 000000kg |

Use ◀ 、▶ 、▲ and then ↵ key to enter the max. capacity

└──────▶ Showing the calibration unit

Forth step

| dp   0 |

Use ◀ 、▶ keys to move the position of the decimal point

| dp   0.0 |
| dp   0.00 |
| dp 0.000 |
| 0.0000 |
| 0.00000 |

Fifth step

| div   01 |
| div   02 |
| div   05 |
| div   10 |
| div   20 |
| div   50 |

Press the ▲ key to select division

※ After entering LF 2, the scale will display the last saved setup. All steps have to be completed to save the changes, otherwise the scale will keep the last setup

※ Proceed with Weight Calibration after LF2 Spec Calibration

| LF 2 |

Press the ↵ key to start and will display the internal value or press the ESC key to exit menu and the scale will restart automatically

↓ ↵

| 262144 |

Press the ↵ key to continue with the setup
(Press the ESC key to exit the setup and back to menu LF 2)

↓ ↵

| 100001 |

Use ◀ 、▶ 、▲ and then ↵ key to select weighing units

↓ (Press the ESC key to exit the setup and back to menu

```
    ↵
 000000kg
```
LF 2)

Use ◄ 、► 、▲ and then ↵ key to enter the max. capacity

(Press the ESC key to exit the setup and back to menu

↓

```
    ↵
 dp  0.0kg
```
LF 2)

Use ◄ 、► and then ↵ key to move the decimal point
(Press the ESC key to exit the setup and back to menu
LF 2)

↓   ↵

```
 div   01
```

Use ▲ and then ↵ key to select division
(Press the ESC key to exit the setup and back to menu
LF 2)

↓   ↵

```
 LF 2
```

Use ◄ 、► and then ↵ key to continue with other
setups or press the ESC key to exit menu and the scale
will restart automatically
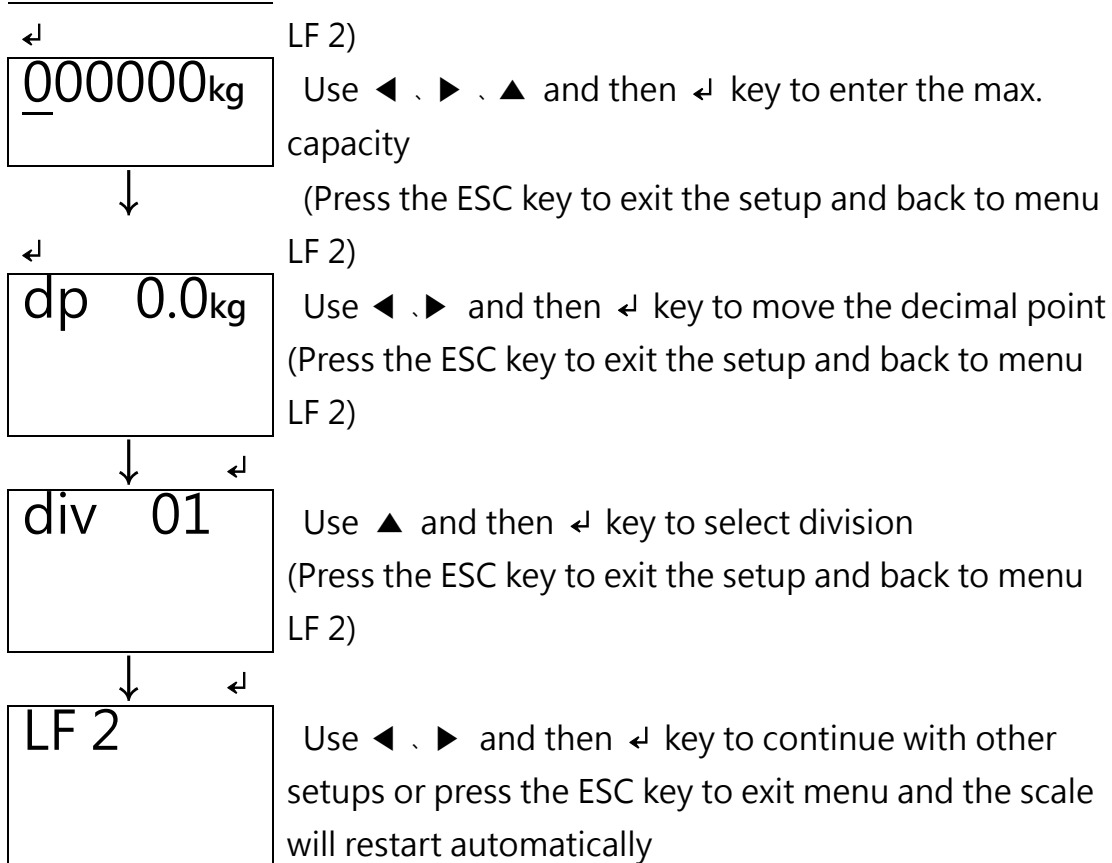
LF 3 Linearity Calibration:

Be sure that the scale pan is empty before start the calibration. Press►
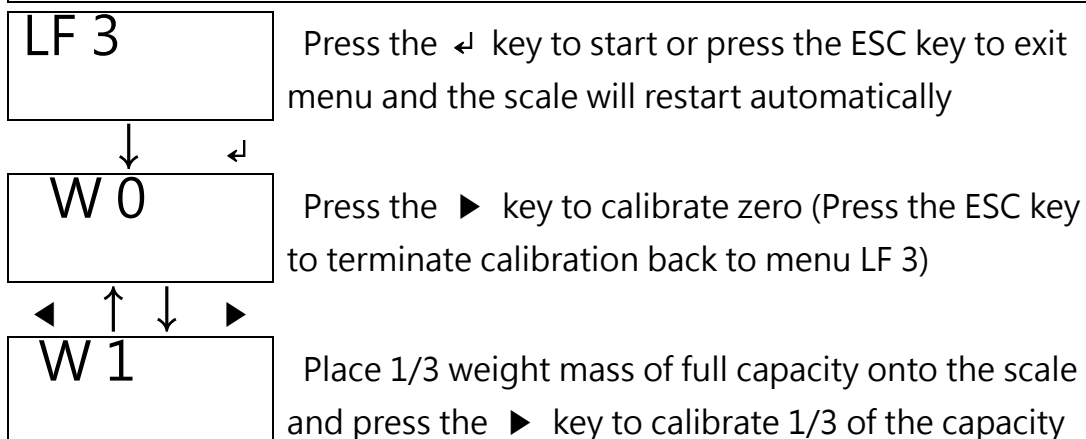key for first calibration point.

Press the ► key to proceed to the next calibration point

Press the ◄ key to return back to the previous calibration point

Press the ↵ key to save the calibration

Press the ESC key to terminate calibration back to menu LF 3

Suggest the linearity calibration should be in three points 0 、 1/3 、
2/3 、 1

```
 LF 3
```

Press the ↵ key to start or press the ESC key to exit
menu and the scale will restart automatically

↓   ↵

```
 W 0
```

Press the ► key to calibrate zero (Press the ESC key
to terminate calibration back to menu LF 3)

◄ ↑ ↓ ►

```
 W 1
```

Place 1/3 weight mass of full capacity onto the scale
and press the ► key to calibrate 1/3 of the capacity

◀ ↑ ↓ ▶　　(Press the ESC key to terminate calibration back to menu LF 3)

| W 2 | Place 2/3 weight mass of full capacity onto the scale and press the ▶ key to calibrate 2/3 of the capacity |

◀ ↑ ↓ ▶　　(Press the ESC key to terminate calibration back to menu LF 3)

| W 3 | Place weight mass of full capacity onto the scale and press the ▶ key to calibrate full capacity 放 |

◀ ↑ ↓ ▶　　(Press the ESC key to terminate calibration back to menu LF 3)

| W 4 | Press the ↵ key to complete linearity calibration |

↓　　(Press the ESC key to terminate calibration back to menu LF 3)

↵

| LF 3 | Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and the scale will restart automatically |

LF 4　ADC Update Rate :

SPEEd　1　　Standard speed 15 hz

SPEEd　2　　High speed　　　30 hz

SPEEd　3　　Low speed　　　7.5 hz

※　This function is locked when UF-5 is set as "HOLD 1"

※　Factory default: SPEEd　1

| LF 4 | Press the ↵ key to start or press the ESC key to exit menu and back to weighing mode |

↓　　　↵

| SPEEd　1 | Use ▲ and then ↵ key to select ADC speed (Press the ESC key to exit the setup and back to menu LF 4) |

↓　　　↵

| LF 4 | Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and the scale will restart automatically |

LF 5 Zero Weight Display Condition :

ZP   0   Off

ZP   1   One division not to display at zero

ZP   2   Two divisions not to display at zero

ZP   3   Three divisions not to display at zero

ZP   4   Four divisions not to display at zero

ZP   5   Five divisions not to display at zero

※ This function is locked when UF-5 is set as "HOLD 1"

※ Factory default: ZP   1

LF 5   Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

↓   ↵

ZP   1   Use ▲ and then ↵ key to select how many divisions not to display at zero
(Press the ESC key to exit the setup and back to menu LF 5)

↓   ↵

LF 5   Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and the scale will restart automatically

LF 6 Approval Conformity:

nonE   Non-approval version; Initial Zero not restricted, Standard calibration allowed

oiML   EC approval; Initial Zero FULL SCALE ±10%, Manual Zero FULL SCALE ±2%, No standard calibration allowed

※ Factory default: nonE

LF 6   Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

↓

↵

nonE   Use ▲ and then ↵ key to select approval or non-approval

	(Press the ESC key to exit the setup and back to menu LF 6)

↓

↵

LF 6	Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and the scale will restart automatically

LF 7   Internal Gravitational (G value) Pre-Calibration:

※ Sender G value: Set it before Weight Calibration

※ Recipient G value: Set it after Weight Calibration

※ The G value will be denied when the value is greater than 9.83217 (Polar G value) or less than 9.78031 (Equator G value)

※ Factory Default: 9.79450

LF 7	Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

↓   ↵

-00-	The display will show the number of pre-calibration for a second

↓

9.79450	Press the ↵ key to continue

↓   ↵

9.79450	Use ◀ 、▶ 、▲ and then ↵ key to enter the G value

↓

(Press the ESC key to exit the setup and back to menu LF 7)

↵

LF 7	Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and the scale will restart automatically

LF 8 Initial Zero:

SEtZ Y   Reset zero point every time the scale has been switched on

SEtZ n   Zero point reset off

※ Factory Default: SEtZ Y

LF 8

Press the ↵ key to start or press the ESC key to exit menu and the scale will restart automatically

↓

↵
SEtZ Y

Use ▲ and then ↵ key to select initial zero mode (Press the ESC key to exit the setup and back to menu LF 8)

↓

↵
LF 8

Use ◀ 、▶ and then ↵ key to continue with other setups or press the ESC key to exit menu and the scale will restart automatically