8. Simple Counting

1. Press the【UNIT】key until the scale shows PCS .
2. Press the 【MR/MC】key and C   10 will be displayed. Continue pressing this key to select desired sample size (ex. C   10 = sample size 10 pieces)
3. Place objects to be sampled and press the【M+/PRINT】 key to complete the sampling
   Remark: Simple counting function has to be switched on before it can be functional.

Remark 1   0   0   0

                   A   B   C

   A ---Buzzer Conditions: 0 = Stable not required to buzz

                           1 = Stable required to buzz

   B ---LCD display and Relay 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

Remark 2

HOLD 1   : Activate animal weighing function, use   【M+/PRINT】to start animal weighing

 PCt XXX : Set maximum movement range from 001 ~ 100% (Higher range provides more accurate weighing, but weighing time takes longer)

Time XX : Set 1, 2, 4, 8, 16, 32, 64 times within the hold range

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TD-I 1

USER MANUAL

1. Main Specifications

Sensitivity:	1.5～3.0mV /V
Non-Linearity:	≤0.01%F.S
System Voltage:	DC:5V
Division:	1/2/5
Remote Display connection:	Serial output
Sampling Speed:	20 times/sec. (Selectable)
External Resolution:	Up to 1/15,000
Internal Calibration:	1/300,000~1/600,000

2. Power Source

Input: AC 120~240V   Output: DC 9V/500MA

3. Power Consumption

1. Main System   : Approximately 18mA
2. Main System with Backlight   : Approximately 32mA
3. Main System with Backlight and RS232 : Approximately 48mA
4. Battery Duration: No backlight last about 160 hrs and with backlight
   last about 120 hrs.

4. Indicator and load cell connectors

PIN 1:E+（EXC+)   PIN 2:E-（EXC-)
PIN 3:S+（SIG+)   PIN 4:S-（SIG-)
PIN 5：Ground (SHIELD)

right or to the left. After desired weight has been entered, place the equivalent calibration weight (mass) onto the scale then press the 【M+/PRINT】key to complete the calibration.

((2) Zero Calibration

Press and hold the 【M+/PRINT】key and then press the 【TARE】key to show ECF-1. Press the 【ON/ZERO】key to move to ECF-2 . Make sure that the platter is empty and press the【M+/PRINT】key to complete the Zero Calibration.

(3) Weight Calibration

Press and hold the【M+/PRINT】key and then press the 【TARE】key to show ECF-1. Press the 【ON/ZERO】key twice to move to ECF-3 . Press the【M+/PRINT】key and the display will show the weight from the last calibration. Use the【N/G】key to change the numbers and use【ON/ZERO】key or【MC/MR】key to move the flashing digit to the right or to the left. After desired weight has been entered, place the equivalent calibration weight (mass) onto the scale then press the【M+/PRINT】key to complete the calibration

(7) Weighing Speed

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the【ON/ZERO】key six times to move to UF-7 . Press the 【M+/ENTER】 key and the scale will show SPEEd 3 (factory default). Use the 【N/G】 key to select between SPEEd 1 Standard, SPEEd 2 Fast and SPEEd 3 Slow.

Remark: Faster the speed, poorer the stability. Slower the speed, better the stability.

(8) Display condition at zero

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key seven times to move to UF-8 . Press the 【M+/ENTER】 key and the scale will show ZP 1 (factory default). Use the 【N/G】 key to select between ZP 0 ~ ZP 5 (ex: ZP 1 = One division not to display at zero)

(9) Gravitation (G value)

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key eight times to move to UF-9 . Press the 【M+/ENTER】 key and the scale will show 9.79423 (Manufacturer local G value). Press the 【M+/ENTER】 key again and the left number will start to flash. Use the 【N/G】 key to change the numbers and use 【ON/ZERO】 key or 【MC/MR】 key to move the flashing digit to the right or to the left.

7. External Calibrations

(1) Zero and Weight as one Calibration

Press and hold the 【M+/ENTER】 key and then press the 【TARE】 key to show ECF-1. Press the 【M+/ENTER】 key and the display will show CAL Z . Make sure that the platter is empty then press the 【M+/ENTER】 key to calibrate the zero point and the display will show the weight and use 【ON/ZERO】 key or 【TARE】 key to move the flashing digit to the

5.Key Function and Operation

OFF : To turn off the scale press and hold the OFF key and the weight window will show "OFF" for 2 seconds then the scale will turn off automatically

UNIT/ESC : To select weighing units. In setup mode it works as escape key (ESC).

ON/ZERO/Tare ON: To turn on the scale.

ZERO: To reset the scale to zero. The platter is empty of any objects

▶: In setup mode it works to move digit to the right

TARE/ TARE: To tare off container weight. Place the container onto the scale and press the tare key to subtract the weight of the container. (Full scale tare)

MR/MC/◀:

MR : Accumulation Recall. Press this key to recall number of accumulations first and then will show total accumulation

MC: Accumulation Clear. Press and hold this key for two seconds to erase accumulated value and the accumulation indicator will go off.

◀: In setup mode it works to move digit to the left

M+/ENTER M+: Press this key when a weighing has occurred and it will be accumulated.

ENTER: When a weighing has occurred and RS232 has been set as manual (keyboard) output(232 3 and 232 6), press this key to output data to computer or printer.

Net/Gross :

Change between net weight and gross weight

Increase number function:in setup mode,as increase number function

6. Basic Function Operation and Setup

(1) Display Internal Value and Battery Voltage

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【M+/ENTER】 key to show the internal value. Press the 【M+/ENTER】 again to show the battery voltage (ex: if displayed BAT 6.5 means the battery voltage is 6.5V). Press the 【PRINT】 key twice to return back to weighing mode.

(2) Set HI/LO Checkweighing

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key to move to UF-2 .Press the 【M+/ENTER】 key and the scale will show OOOOOL to set LO (low) limit and the left "0" will start to flashing. Use the 【N/G】 key to change numbers and use 【ON/ZERO】 key or 【MC/MR】 key to move the flashing digit to the right or to the left. Continue by press the 【M+/ENTER】 key and the scale will show OOOOOH to set HI (high) limit and the left "0" will start to flashing. Use the 【MC/MR】 key to change numbers and use 【ON/ZERO】 key or 【MC/MR】 key to move the flashing digit to the right or to the left. Press the 【M+/ENTER】 key and the scale will show b OOO to set buzzer, LCD and relay output conditions. Use the 【N/G】 key to change numbers and use 【ON/ZERO】 key or 【MC/MR】 key to move the flashing digit to the right or to the left. (See remark 1 for conditions)

(3) Auto-Power Off

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key twice to move to UF-3 .Press the 【N/G】 key and the scale will show Aoff 00 (factory default) Use the 【N/G】 key to change numbers and use 【MC/MR】 key or 【ON/ZERO】 key to move the flashing digit to the right or to the left (ex: Aoff 02 = auto-off in two minutes). The scale starts to countdown when the weight is smaller than 9 divisions.

(4) Backlight

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key three times to move to UF-4 .Press the 【M+/ENTER】 key and the scale will show Lit A (factory default). Use the 【N/G】 key to select between Lit A (auto-backlight), Lit ON (backlight always on) and Lit OFF (backlight off)

(5) Hold and Animal Weighing

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key four times to move to UF-5 .Press the 【M+/ENTER】 key and the scale will show Hold 0 (factory default). Use the 【N/G】 key to select between Hold 0 -- Hold 4.

Hold 0:Hold function off

Hold 1:Animal Weighing (See remark 2 for setup)

Hold 2:Peak Hold (Press any key to exit, except print key)

Hold 3:Stable Hold (Press any key to exit, except print key)

Hold 4:Stable Hold (Exit hold mode automatically when the weight has returned back to zero

(6) RS-232 (Optional)

Press and hold the 【M+/ENTER】 key and then press the 【ON/ZERO】 key to show UF-1. Press the 【ON/ZERO】 key five times to move to UF-6 .Press the 【M+/ENTER】 key and the scale will show 232 0 (factory default). Use the 【N/G】 key to select between 232 0 ~ 232 10

Format 1		Format 2	
232 1	Stable Output	232 4	Stable Output
232 2	Stream Output	232 5	Stream Output
232 3	Keyboard (Print Key) Output	232 6	Keyboard (Print Key) Output
Format 3		Format 4	
232 7	Accumulate Output	232 9	Accumulate Output
232 8	Auto-Accumulation Output	232 10	Auto-Accumulation Output