Manual JIK-8

CONTENTS

PRECAUTIONS	3
INSTALLATION	4
FUNCTIONS	
ZERO	9
TARE	10
PRE-TARE	12
AUTO TARE	14
SELECTION OF WEIGHING UNIT	16
UNIT IN USE AND INITIAL WEIGHING UNIT SETTING	17
ACCUMULATION	19
ACCUMULATION MODE	21
MAX ACCUMULATION SETTING	
SIMPLE COUNTING	23
PERCENTAGE	24
HI / LO CHECKING	25
SERIAL NUMBER	27
SERIAL NUMBER SETTING	28
MAX SERIAL NUMBER SETTING	29
TIME AND DATA SETTING	31
PRINT	32
PRINT FORMAT SETTING	33
SPACE BETWEEN LINES WHEN PRINTING	34
PRINTING MODE SETTING	35

SAMPLES OF BP-443D / EZ-2P PRINTING FORMAT	36
SAMPLES OF SH-24 PRINTING FORMAT	37
PARAMETER SETTING	38
PARAMETERS	39
CAPACITY / RESOLUTION SETTING	41
DIVISION CONFIGURATION CHART	43
TESTING MODE	44
ERROR MESSAGES	45
LCD CHARACTERS	47
CONNECTER	48
DATA PROTOCOL	48
RELAY MODULE DIAGRAM	49
DUAL PLATFORM OPERATION CH1, CH2	50
PRODUCT SPECIFICATIONS	51
ASSEMBLY MANUAL OF JIK INDICATOR AND SUPPORT STAND	52
FIXING SCREW INSTRUCTION FOR JIK-XSX	53
SINGLE POINT CALIBRATION FOR WEIGHT	54

[PRECAUTIONS]

The scale or indicator should always be used in an environment which is free from excessive air currents, corrosives, vibrations, temperatures and humidity extremes. These factors will affect displayed weight readings.

DO NOT use the scale or indicator

Next to open windows or doors causing drafts or rapid temperatures changes! An operating temperature between 0 ~ 40 degree Celsius is recommended.

Near air conditioning or heat ventilations!

Near vibrating, rotating or reciprocating equipment!

Near magnetic fields or equipment that generates magnetic fields!

On a rough work surface!

Leveling the scale

(when the indicator is connected to a platform)

Always adjust the scale to a level position with level adjusters until the bubbles appear in the center circle of the level indicator!

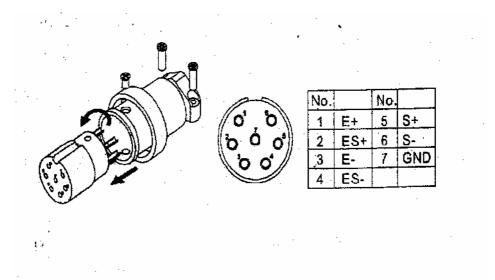
Battery

Recharged the battery whenever the symbol is flashing; this indicates that battery level is low. Charge the battery with the DC 9V / 1A adaptor supplied with the indicator. And when the battery is charging, the LED is red and when is fully charged the LED turns green. (it takes approximately 6 hours to charge battery completely)

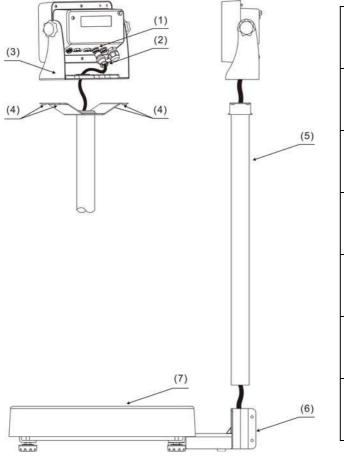
[INSTALLATION]

Load Cell connections

7 pin Load Cell connections



Setting up the platform

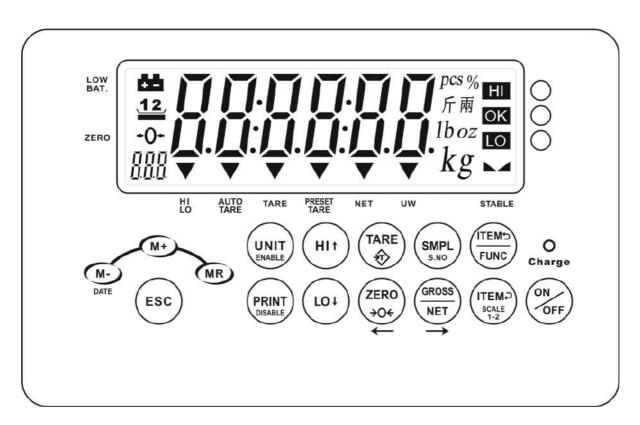


1	Load Cell (male) connector (7 pin)
2	Load Cell (female) connector (7 pin)
3	Indicator Stand
4	Supporter between frame and indicator
5	Pole
6	Pole holder
7	Platform

Assemble the scale by the following steps (refer to the diagram above)

- 1. Pull the load cell cable through pole holder (6) and upwards. Install pole (6) into the pole holder (5), and fix the pole with cross-headed screws.
- 2. Pull load cell cable through indicator supporter (4) to connect to the indicator.
- 3. Install Indicator supporter (4) and indicator stand (3) together.
- 4. Adjust the indicator to adequate viewing angle and tighten the screws located on each side of the Indicator.

LCD display and function of each key



■ LCD display and explanation

LCD display	Explanation	
kg	Weighing unit in Kilograms or Grams unit	
-0-	" ZERO " sign	
	Stable sign when the weight reading is stable	
pcs	Piece counting function	
%	Percentage function	
_	Indication sign for insufficient unit weight, net weight, tare, pre-tare, Hi-Lo limits	
000	Operation message display	
HI OK LO	HI, OK and LO limits indication	
斤雨 1b oz	Additional weighing units	
66	Battery Power is weak	

■ Explanation of each key

		caon key	
Posit ion	keys	Main function	Secondary functions
	ON	Turns the indicator on or off	
1	M- DATE	To delete the accumulation weights or certain number of accumulated weight	 Change the digit when in parameter mode (decreased) Change the number when in HI-LO checking mode Setting of date & time
2	M+)	Accumulation	Change the digit when in parameter model (increased)
			Change the number when in HI-LO checking mode
			Press this key to enter the testing mode
			 Change the setting of accumulation mode

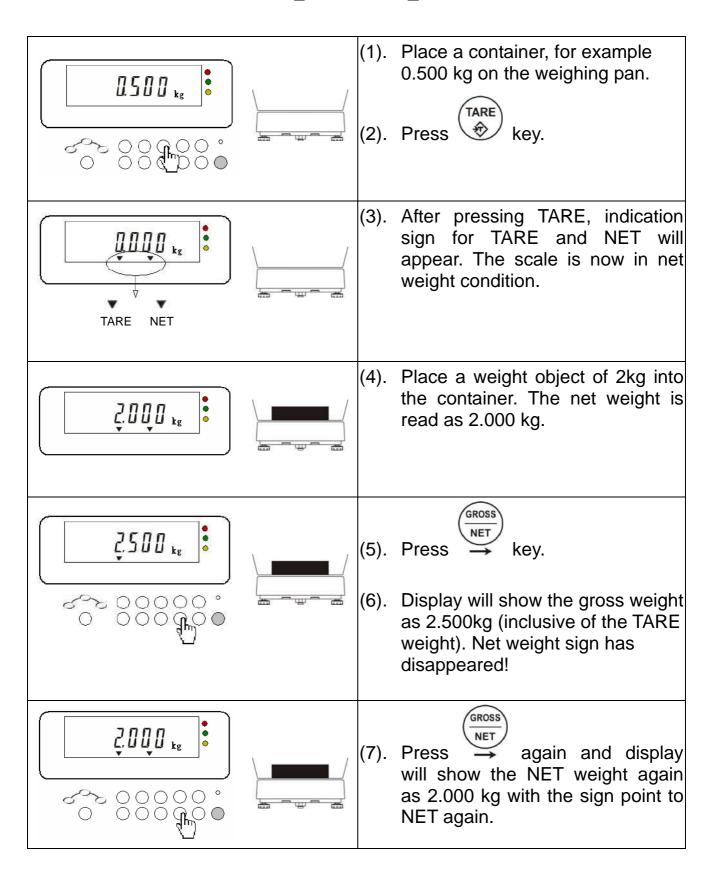
			5. Press this key to set the maximum unit of accumulation
3	ESC	Escape from current mode/position	Press to escape from parameter mode without saving the changes
4	MR	Recall total accumulation weights or certain number of accumulated weights	Capacity / division setting
5	UNIT	Switch the weighing unit from one to another	 Enable auto tare function Enable HI-LO checking function Select the initial weighing unit and setting of the initial weighing unit
6	PRINT DISABLE	Send the data stored in memory to printer or PC when pressed	 Disable auto tare function Disable HI-LO checking function Setting of print format Setting the space when in printing format mode (only forSH-24) Setting of printing mode
7	HIT	Enter to HI-LO checking mode for HI Limit	 Change the digit when in parameter mode (increased) Select the sampling amount in sampling mode (increased) Setting of serial number mode Setting of maximum serial number Setting of time and date Select the print format (increased) Select the accumulation mode (increased)
8	rot	Enter to HI-LO checking mode for LO limit	,
9	TARE	Tare	 To enter to pre-tare mode To enter to auto tare mode

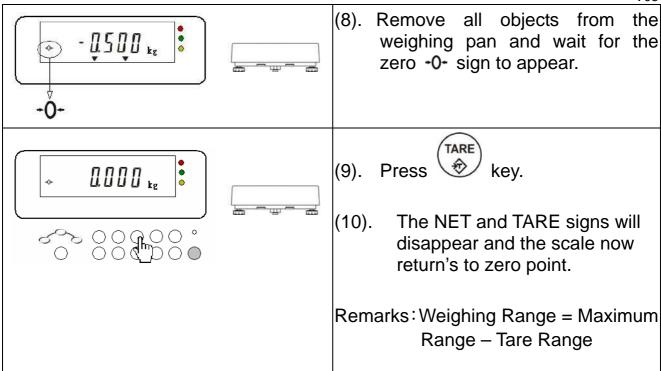
10	ZERO →O÷	Zero	 Select the initial unit Move the cursor to left when in parameter setting mode
11	SMPL s.no	Sampling average	 Setting of serial number mode Setting of maximum serial number
12	GROSS NET	Gross/Net Weight	Move the cursor to right when in parameter setting mode
13	FUNC		Selection of memory (increased) Enter to parameter mode
14	SCALE 1-2		1. Selection of memory (decreased) or switch key when connect to two platforms.

[ZERO]

-O+	(1). The indicators zero point -0- sign is shown in the left diagram. When the display is at zero, this sign will appear.
[][] kg	(2). Press to return to zero when the display is without the +0+ sign.
0.000 kg	(3). Now, the -0- sign appear and the scale is in zero point.
-Ö+	Remarks: The range of zero point is +/- 2% of the max capacity. Example : the zero range of 60kg is +/- 1.2kg

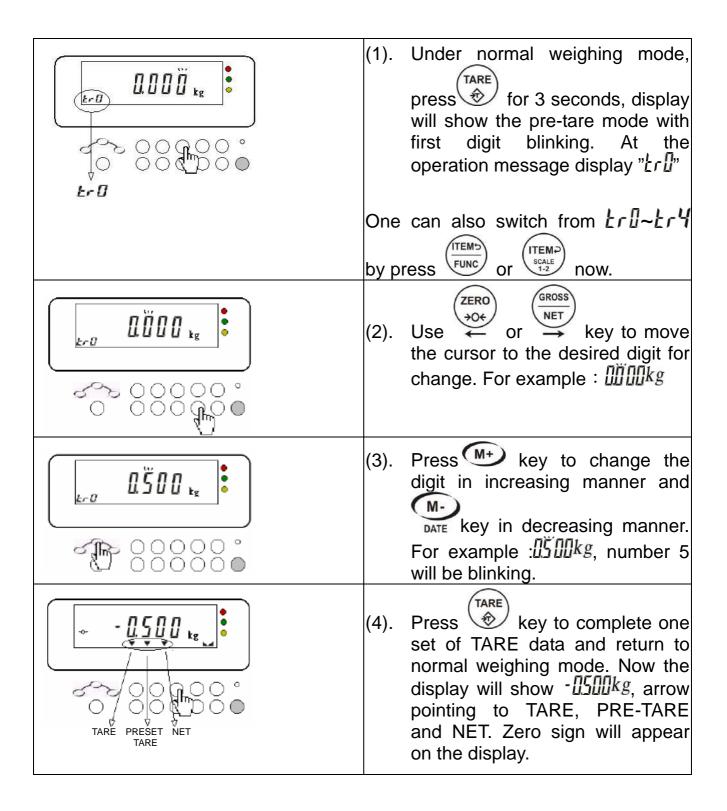
[TARE]

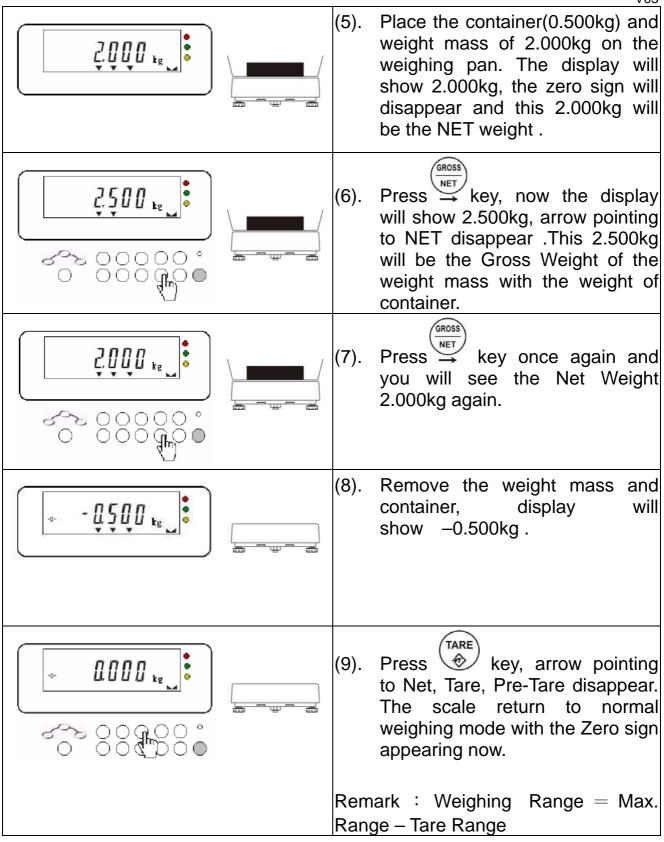




[PRE-TARE]

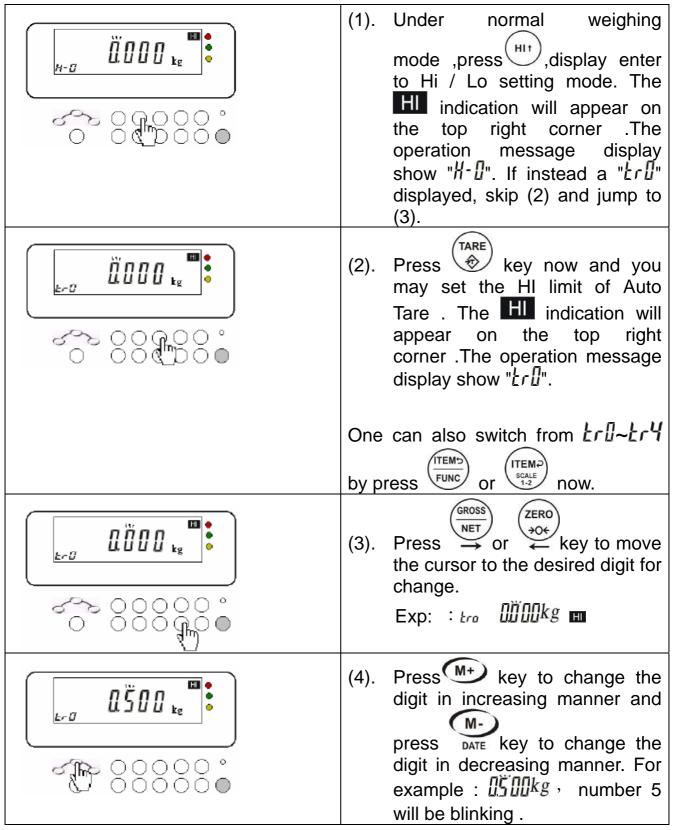
Łr∏~Łr¥ 5 sets available

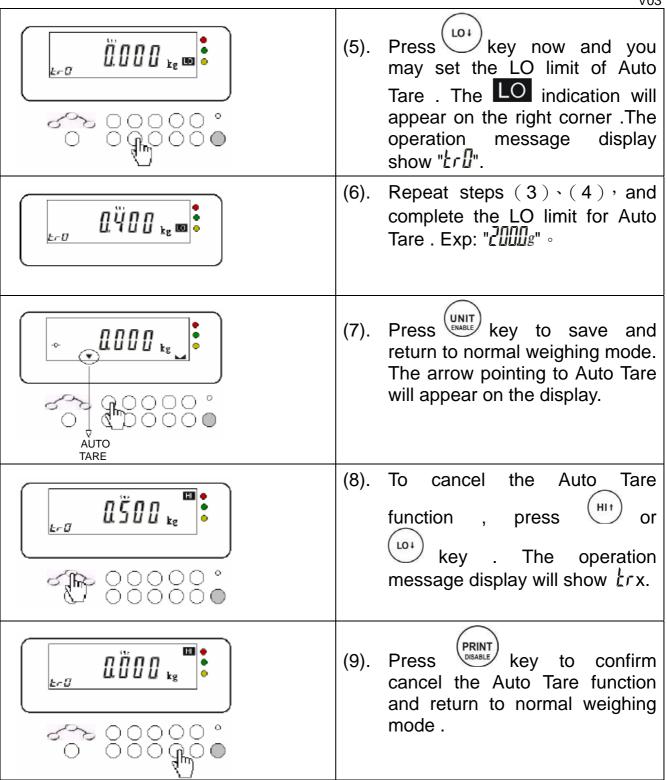




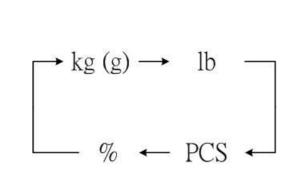
[AUTO TARE]

Łr∏~Łr¥ 5sets available





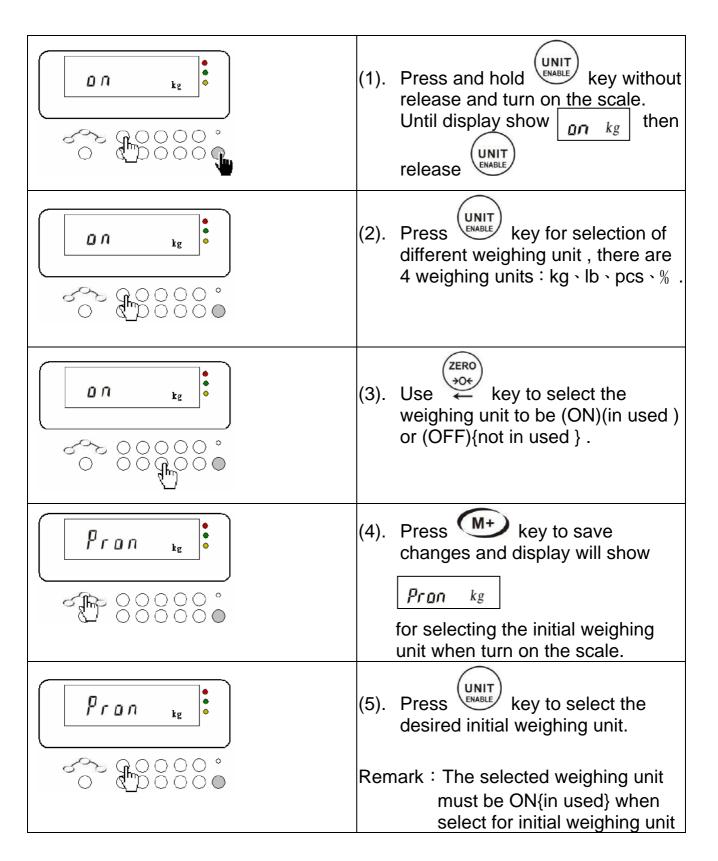
[SELECTION OF WEIGHING UNIT]

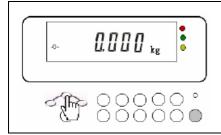


key to select the Press weighing unit in sequence as shown on the left diagram.

Remarks: When using division $\geq 1g^{-1}$ the unit will be shown as kg when using division < 1g, the unit will be shown as g

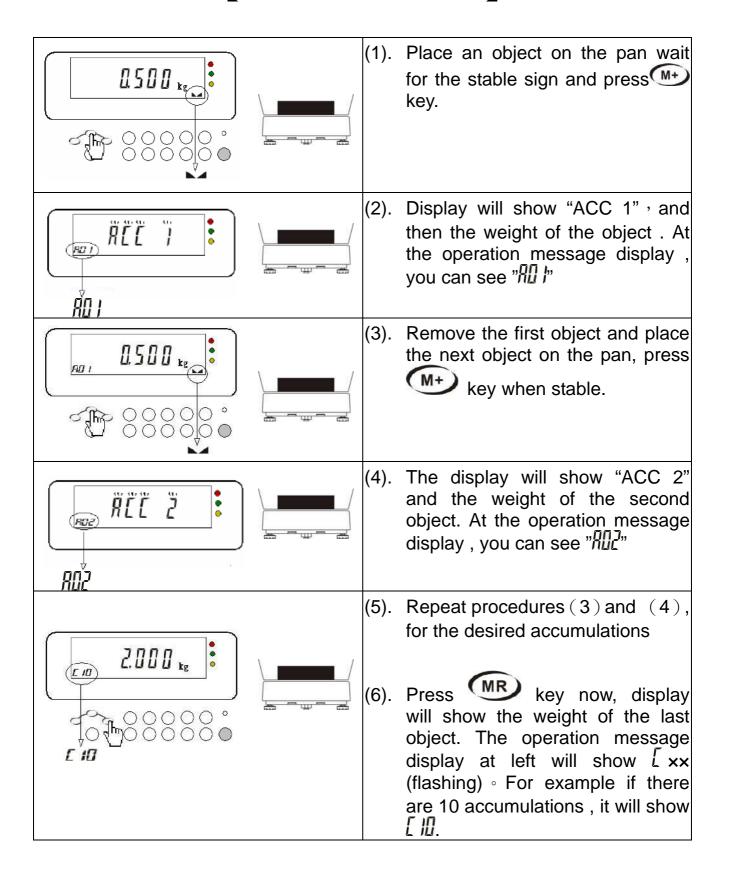
[UNIT IN USE AND INITIAL WEIGHING UNIT SETTING]

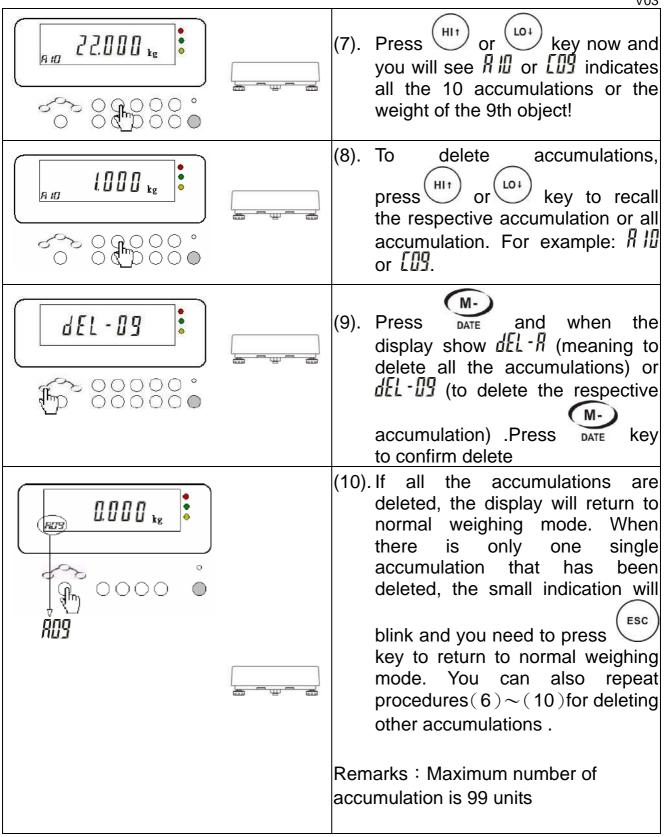




(6). Press key to save changes and return to normal weighing mode.

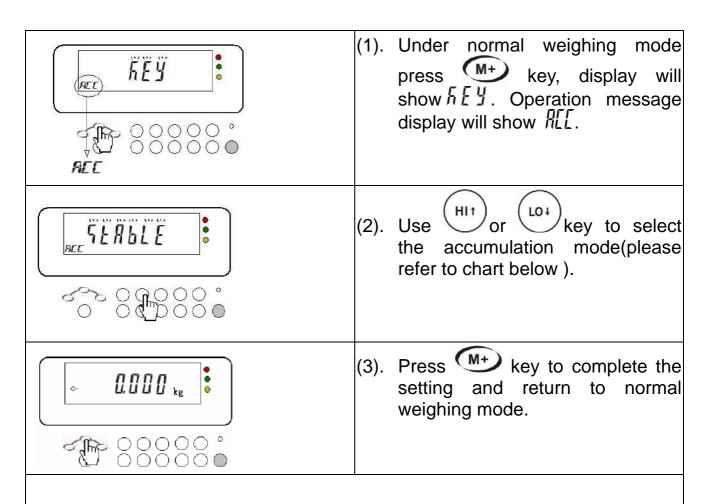
[ACCUMULATION]





JIK-8 User Manual 20

[ACCUMULATION MODE]



Accumulation mode:

nħ

REY : Accumulate manually by pressing.

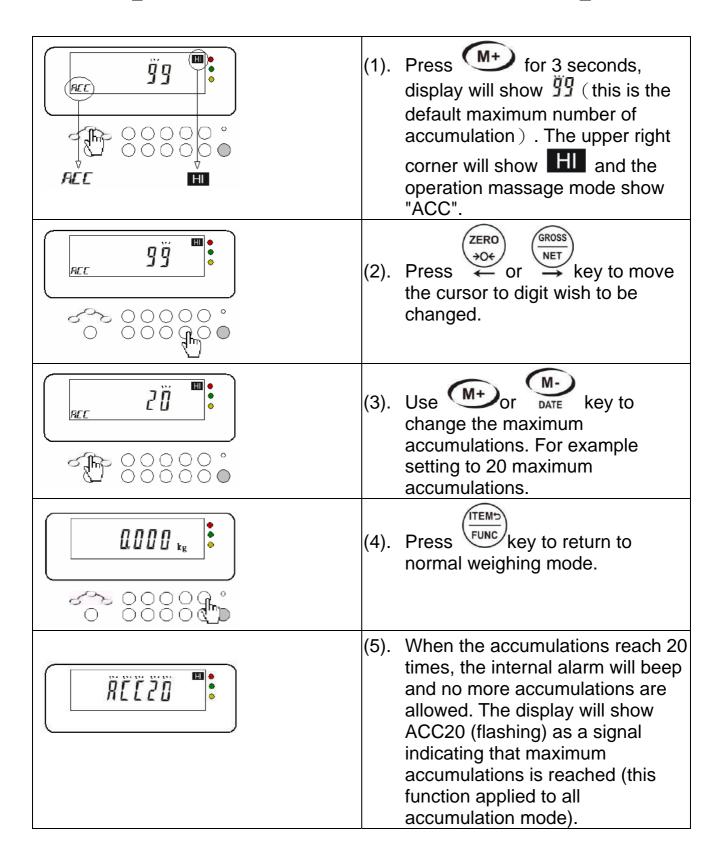
SERBLE : Accumulate when the weight is stable.

: Accumulate when the weight is within the HI,LO range (OK

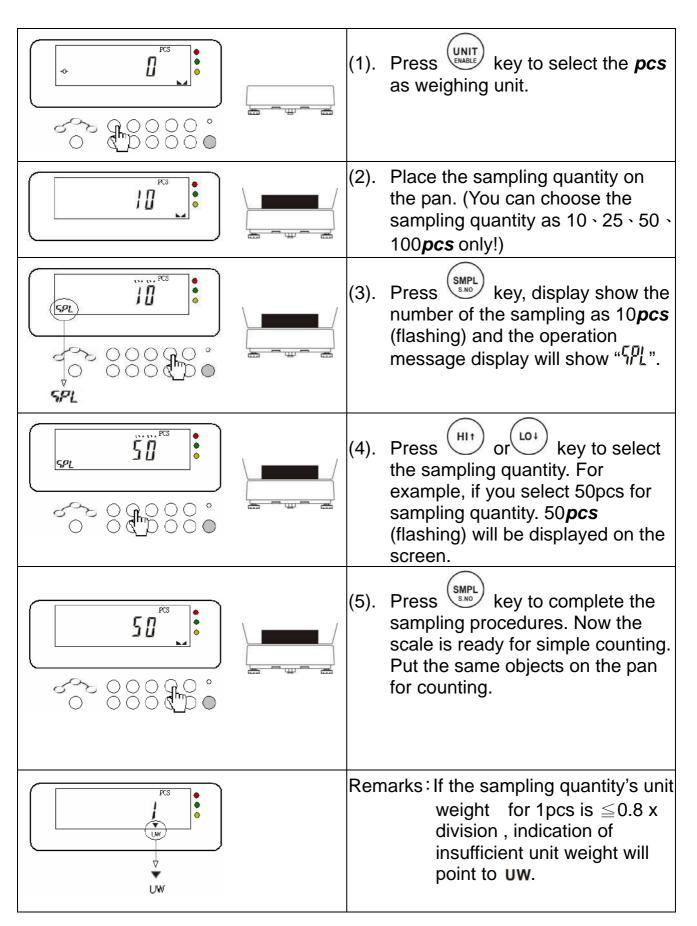
range)

Remark: accumulation is workable without enable the HI-LO checking function.

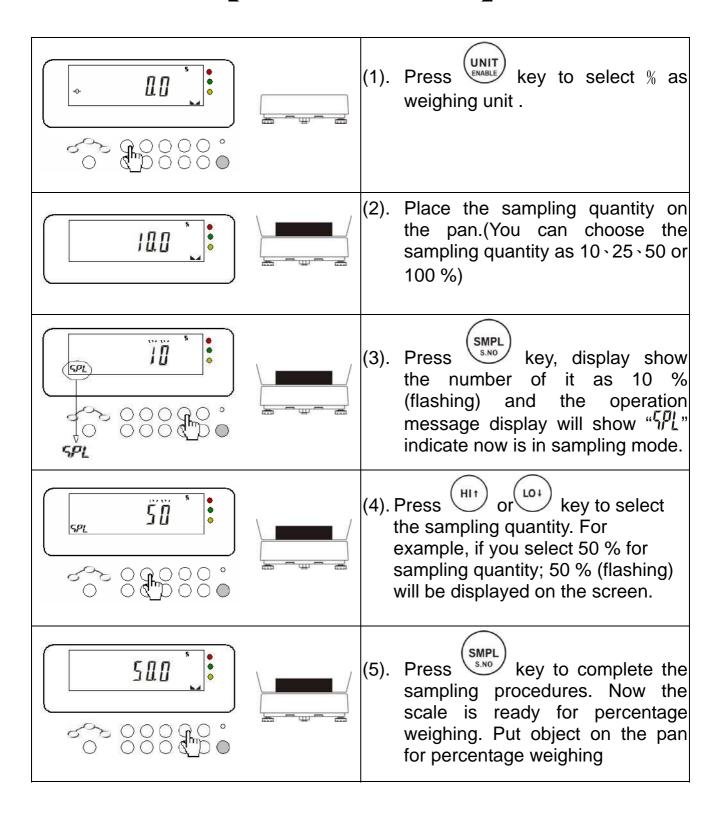
[MAX ACCUMULATION SETTING]



[SIMPLE COUNTING]



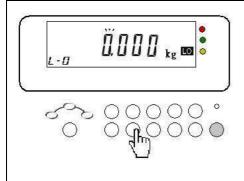
[PERCENTAGE %]



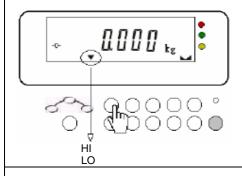
[HI/LO CHECKING]

H-0-H-9, L-0-L-9 -- 10 sets available

ÄÖÜÜÜ kg	(1). Under normal weighing mode press key, display enter to Hi / Lo setting mode. The indication will appear on the top right corner .The operation message display show "#-11".
ДООО кg • • • • • • • • • • • • • • • • • •	(2). If the operation message display does not show H-1, press key to make sure you can read H-1 at the operation message display.
	(3). press ← or → key move the cursor to the digit you want to change.
	(4). Press M+ or DATE key to enter the number.
1 00000 1 00000	(5). Repeat (3) (4) to complete the setting of HI limit.



- (6). Press (LO) key, indicator is ready for entering the value of the LO limit, the LO indication on the right will appear and the operation message display on the left will show L-11.
- (7). Repeat $(3)\cdot(4)\cdot(5)$ to complete the setting of LO limit.

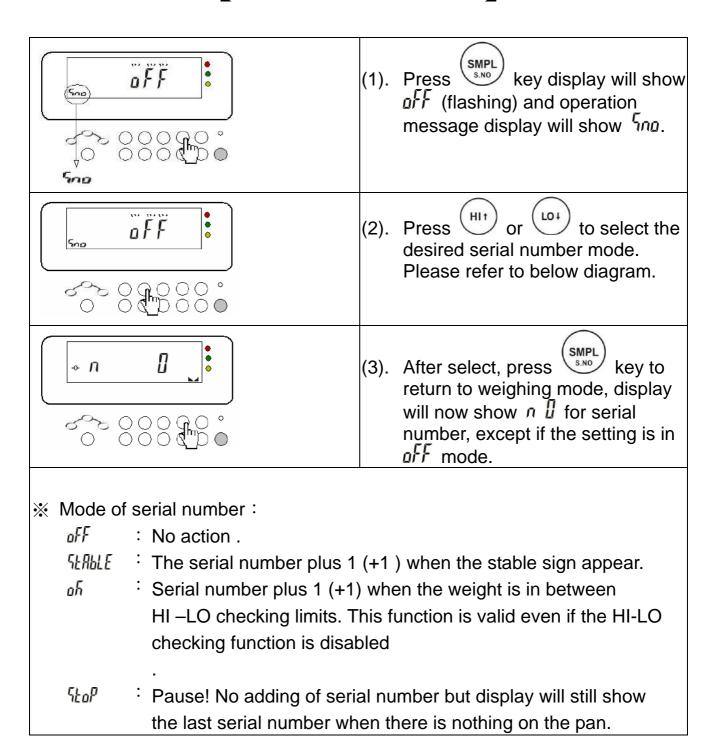


disabled.

- (8). Press key to return to normal weighing mode. At this point, the arrow pointing to HI-LO checking will appear and HI-LO checking function is ready for operation.
- To cancel the function of HI-LO checking, press key when the indication of HI-LO indication signs is on the LCD. Follow by pressing key . HI LO indication signs will disappear and this function is

Remarks : LO limits must be ≤ HI limits

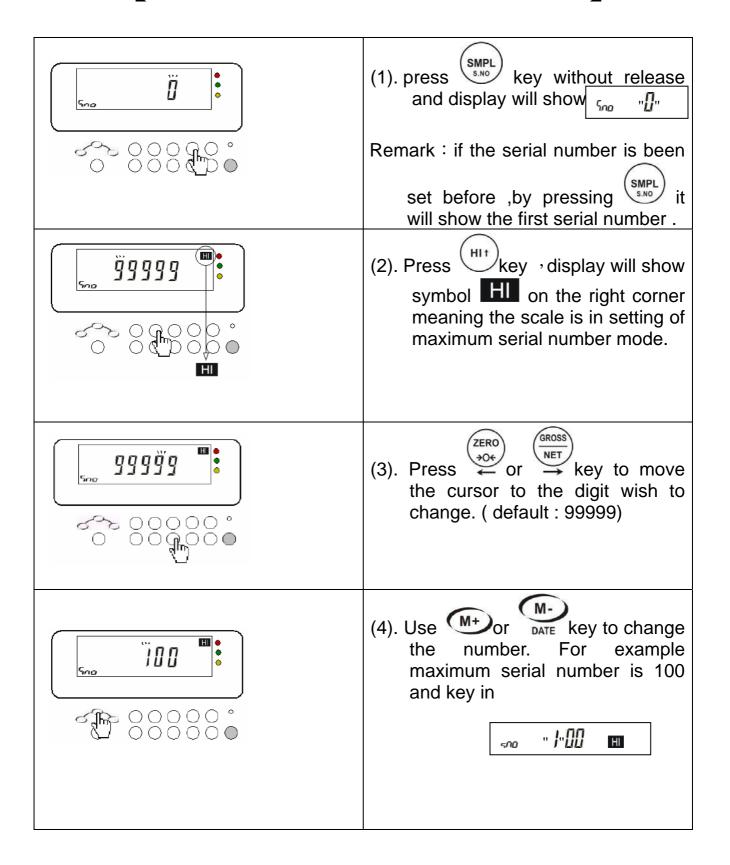
[SERIAL NUMBER]

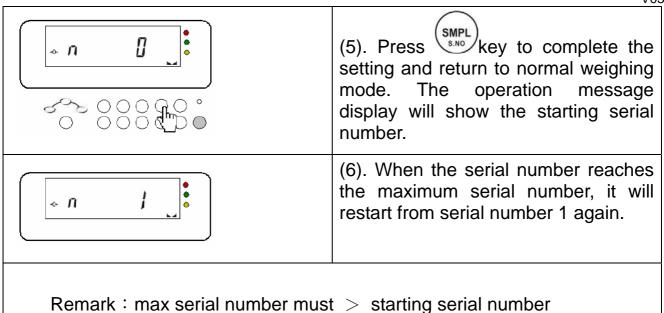


[SERIES NUMBER SETTING]

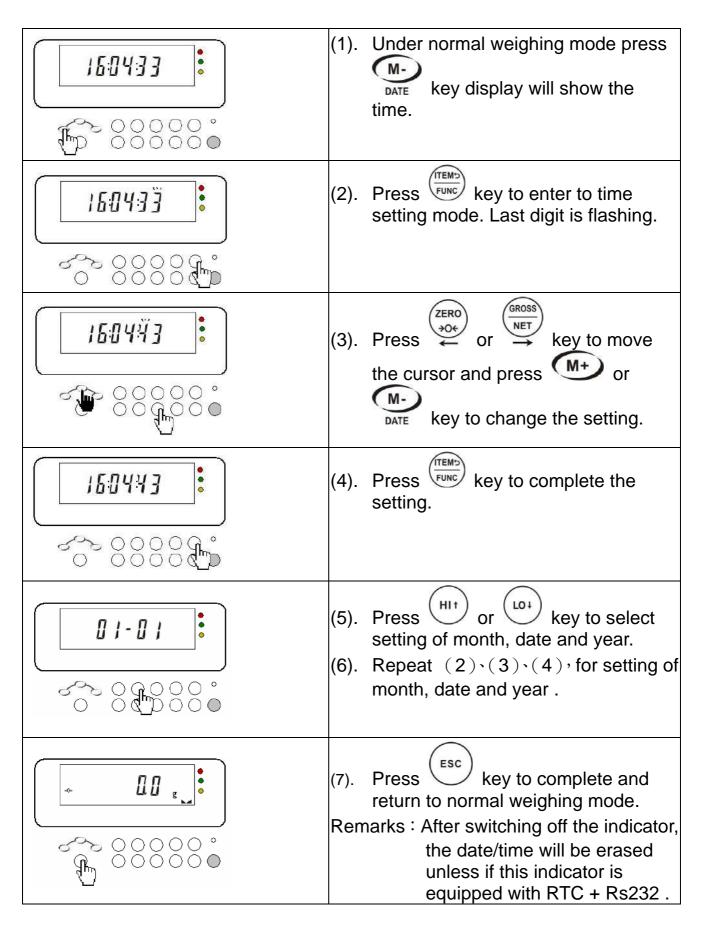
Since OFF	Under normal weighing mode, press key to enter to setting of serial number mode. Display will show fina off key to setting of serial number mode. Example: Setting is "OK"
	(2). Pres key for 3 seconds, display will show
	(3). press ← or → key to move the cursor selected digit for change ∘ Example: Serial number starting from 100, then move the cursor to:
	(4). use M+ or DATE key to key in the number. Example: 100 is the starting serial number
	(5). press key to save the changes and return to normal weighing mode. Now the starting serial number is 100
	Remarks : Max. serial number is 99999

[MAX SERIAL NUMBER SETTING]

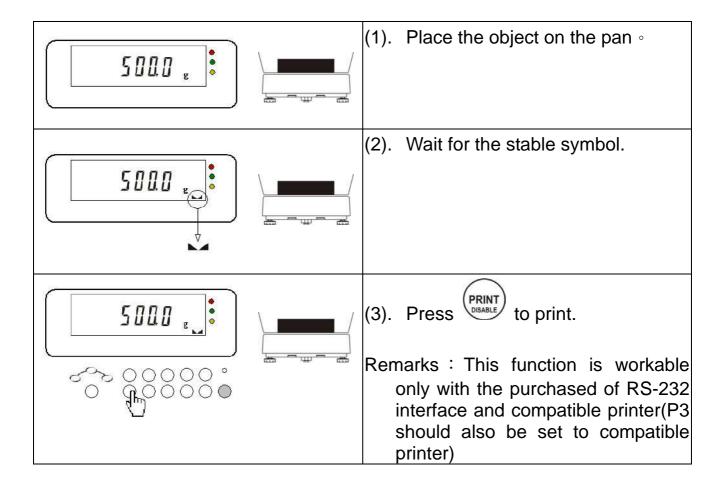




[TIME AND DATE SETTING]

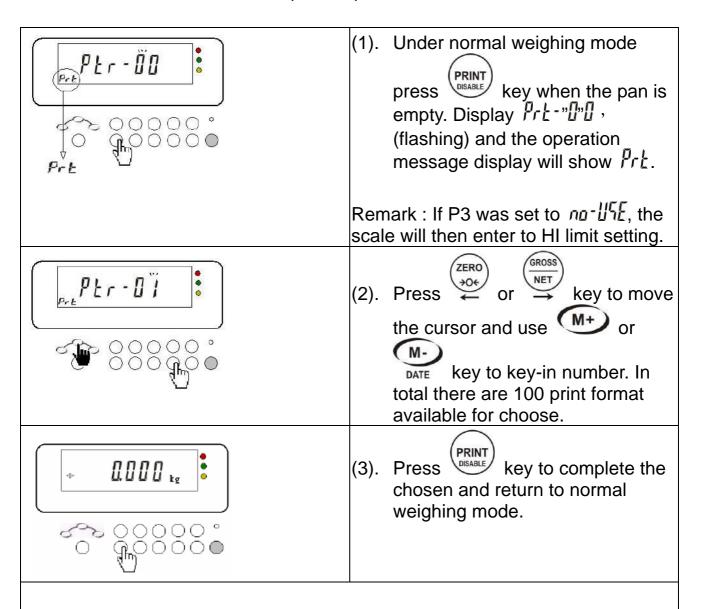


[PRINT]



[PRINTING FORMAT]

This function is applicable only when the Parameter P3 - Printer Type is set to normal, SH-24, BP-443D or EZ-2P.



Note:

1. There are three options of printers available: SH-24 (dot-matrix printer), BP-443D (Label printer) or EZ-2P (Label printer).

[SPACE BETWEEN LINES WHEN PRINTING]

Only available for SH24 / normal

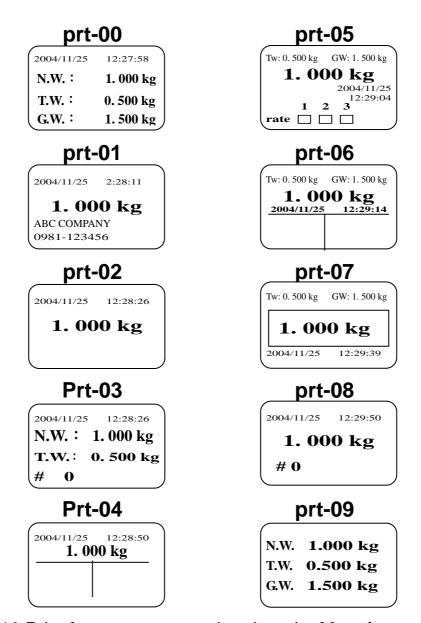
	(1). In parameter for printer(P3) choose the setting to SH-24 / NORMAL
PrE- Ö	(2). Press key and display shows relation message display will show relation.
Pre In E- I	(3). Press key, display show LinE-" I". The operation message display will show I'r L.
LinE-Z	(4). Press
	(5). Press key to complete the setting and return to normal weighing mode.

[PRINTING MODE]

This function is applicable only when the Parameter P3 - Printer Type is set to normal, SH-24, BP-443D or EZ-2P. (PRINT) key. Display show Prt-00 (1). Press PrŁ-"[]", operation message display show Pris 00000 ITEMS SERBLE FUNC key. Display will (2). Press show the printing mode. Example: 52.06 E. 5000000 (3). Use \ key to select a h the printing mode. (refer to the below mentioned chart) key to save changes (4). Press and return to normal weighing mode. **※** REY : Print manually by pressing PRINT key. : Print continuously when connecting to PC or large LED Contin Display. : No action NO SERBLE : Print after stable symbol appear οħ : Print when weight is between HI-LO limits (this function is

valid even if HI-LO checking function is disabled)

[Samples of BP-443D / EZ-2P Printing Format]

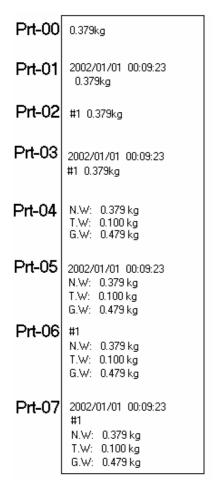


* 10 Print format are preset in printer by Manufacture *

Note:

- Please contact your supplier/-dealer for additional EZ-2P & BP-443D print formats.
- A memory card has to be installed in EZ-2P. (2) (BP-443D memory card is standard)
- (3)The print formats are installed into the printers through PC. Please email your specific requirement to us and we will make the requested print format for you.

[Samples of SH-24 Printing Formats]



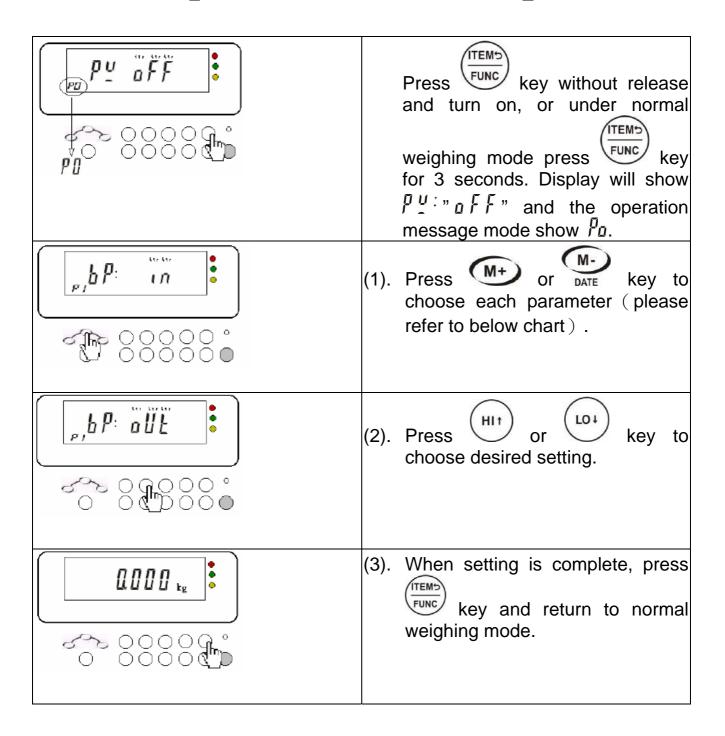
When RLLIB appear under display of accumulation, key the print-out will like as following. press

200	2/01/01 00:09:23
(1)	0.100 kg
(2)	0.100 kg
(3)	0.100 kg
2000000 NS/N	0.300 kg
XX (53)	0.300 kg

Remark:

Without any commands, the printer are able to print format Prt00~Prt07 when connected to a parallel port printer.

[PARAMETER SETTING]

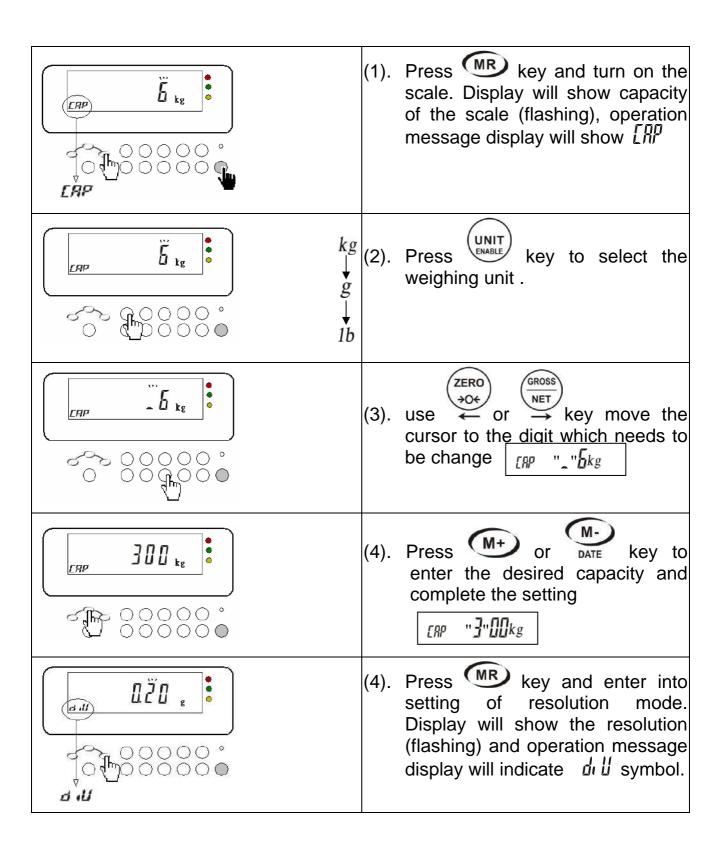


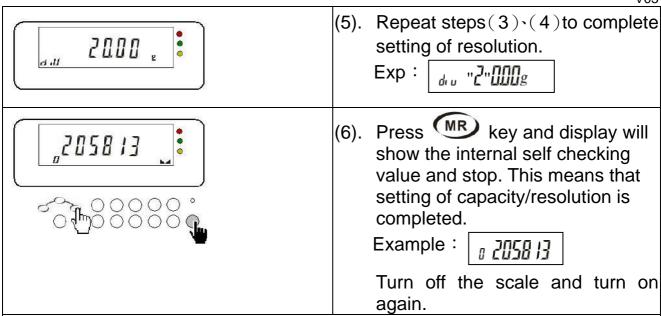
[PARAMETER]

No	Function	Display	Detail
		ΩFF	Off (No action)
		5	5 minutes
РО	Auto Dower Off	Щ	10 minutes
PU	Auto Power Off (Weights > 20d)	30	30 minutes
	(VVolgins > 200)	☆ 50	60 minutes
		90	90 minutes
	Beeping	☆ IN	Scale: Enable the HI-LO checking functions, beeps when the range is between HI & LO
P1	(The effect of this parameter is to determine when to	oUŁ	Scale: Enable the HI-LO checking functions, beeps when the range is out of HI & LO
	have beep sounds during Hi/LO/OK checking.)	Ein	Option: Relay with light tower: beeps when the range is between HI & LO
		EoUŁ	Option: Relay with light tower: beeps when the range is out of HI & LO
		☆ off	No action of Hold
P2	HOLD (able to hold the displayed weight after load is remove)	חם	Able to hold the displayed weight and print at the same time after pressing print key (when there is loading). Press Key to clear.
	Printer type	☆ norinL	N/A
P3	Setting of this	58-24	Normal dot-matrix printer
F 3	parameter determines the data format for the connected printer type	bp-443	Label printer
	RS-232 Baud Rate	2400	
P4	Setting of this parameter determines RS-232 data	¥800	
	transmission rate.	19200	

				V00
P5	RS-232Data Format Setting of this parameter determines the RS-232	A	n8 o8 E8 n]	
	transmission data format.RS-232		0] [7]	
P6	Backlight		nFF	No Backlight
' 0	Dackiigi it		<u> Ш. І</u>	
			ΩN	Backlight is on always
		$\stackrel{\wedge}{\sim}$	SA _U E	Backlight when stable sign appear. Off automatically 3 seconds after stable weighing
			AULo	Auto (backlight is actuated when weight loading is over 20e)
P7	Channel	1		Channel 1
			7	Channel 2
		$\stackrel{\wedge}{\sim}$	1_2	Dual Channel

[CAPACITY/RESOLUTION SETTING]





Note:

Maximum capacity to be set for this indicator is 400000kg.

Minimum division to be set for this indicator is 0.01g.

Whenever the capacity / resolution is set or changed, be sure to re-calibrate according to calibration procedure located in service manual.

[Division Configuration Chart]

	Kg		g			lb	
Max 50	000kg	Max	5000g	Ма	ıx	500lb	
20	000kg		2000g			200lb	
10	000kg		1000g			100lb	
5	500kg		500g			50lb	
2	200kg		200g			20lb	
1	00kg		100g			10lb	
	50kg		50g		5lb		
20kg		20g			2lb		
10kg		10g			1lb		
5kg		5g			0.5lb		
	2kg		2g		0.2lb		
	1kg	1g			0.1lb		
(0.5kg	0.5g				0.05lb	
(0.2kg	0.2g			0.02lb		
0.1kg		0.1g			0.01lb		
0	0.05kg		0.05g		0.005lb		
0.02kg		0.02g			0.002lb		
0	.01kg		0.01g			0.001lb	

[TESTING MODE]

			(1).	Press key and turn on the scale. Display will show the internal count value and operation message display show	
LAP (300 kg		(2).	Press key , display will show the setting of capacity , the operation message display will show [] .	
	PCS N III V			(3).	Press key and all segments in display are appearing. This is to check if the display is in good condition.
	300000				
	20000			(4).	Press key display show this is to check the key function condition.
Q	J00000				
8°00) 			(5).	After testing completed press
Relative	nosition				
1	: Memory cancel	6	: prii	∩t	11 : Sampling
2	: accumulation.	7	: HI	limit	12 : Net/gross
3	: escape.	8	: LO	limit	13 : Item/Function
4	: Memory recall	9	: Tar	е	14 : Item/Scale
5	: Unit.	10	: Ze	ro	
					IIK-8 User Manual 44

[ERROR MESSAGES]

Error Message	Reasons / Possible Caused	Solutions			
EO no <i>EE</i>	The CPU unable to read the EEPROM	Contact the manufacturer or nearest agent			
E1 [RL-d	Unable to read the 3 points calibration range	Refer to "service manual" for calibration procedures			
E2 7Ki	Zero Point is too high	(1) Make sure the pan is empty when turn on the scale or perform the 3 points calibration.(2) Check the connections of wires			
E3 ZLo	Zero Point is too Low	(1) Make sure the pan is on the scale or perform the 3 points calibration.(2) Check the connections of wires.			
E4 Un5t8b	Unstable zero point	(1) Make sure there is no winds or vibration.(2) Check the connections of wires.			
E5 L[-of	(1)Load cell spec. not compatible. (2)calibrating weights mistake	(1) Replace with a compatible load cell.(2) Change with correct calibrating weights.			
E6 no L[Load cell read out always the same	(1)Check if load cell wire are connected correctly.			
E10 [Lħ-b	Optional RS-232(RTC) batteries run out	Replace the batteries			
E11 di FF	Unable to accumulate. Two objects are with different units.	Press DATE twice to clear all accumulation data or press and return to normal weighing mode.			

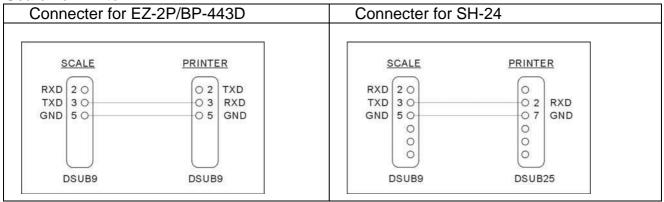
E12 ฏu-XX	Accumulation data exceed preset maximum	Press DATE twice to clear all accumulation data or press and return to normal weighing mode.
E13 Looki	Hi / Lo setting incorrect	Press or key and reset Hi / Lo value.
E20 XXXXX	External division over Maximum (XXXXX is external resolution)	Press and reset Capacity / Resolution
E21 dul XX	Capacity / Resolution Setting inaccurate.	Press EN/DIS and redo Calibration (make sure the calibrate weight is correct).
	Overload (Maximum display= max .capacity + 9e)	Remove the object from the weighing pan.
	Indicator unable to Switch On when pressing key	Use a tool to press the RESET key located at the back of the indicator to turn on the scale and clear the problem.

[LCD CHARACTERS]

			3							9		
A							Н				L	M
Ŗ	Ь		ď	E	F		H	1	Ц	h	Ĺ	11
<u>N</u>	0	Р					U				Υ	
n	Û	þ	Ÿ	r	5	F		Ц	U	4	Y	آرا

[CONNECTER]

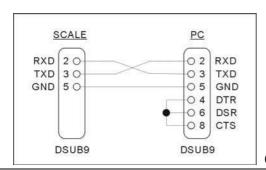
Scale To Printer



Scale To PC

When you want a scale to transmit data to PC continuously.

- (1) Using a cable as following to connect Scale and PC
- (2) Set printer mode as continue
- (3) Scale data will be sent to PC continuously. (of course, you must have the receiving software on the PC)



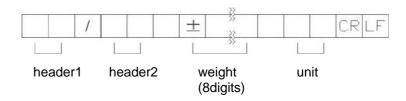
Only pin 2, 3 and 5 are used.

[DATA PROTOCOL]

Output Data when Print Mode set as Continue

(header1: ST=STABLE US=UNSTABLE) (header2: NT=NET GS=GROSS)

For example: ST /NT_+_12.350_kg

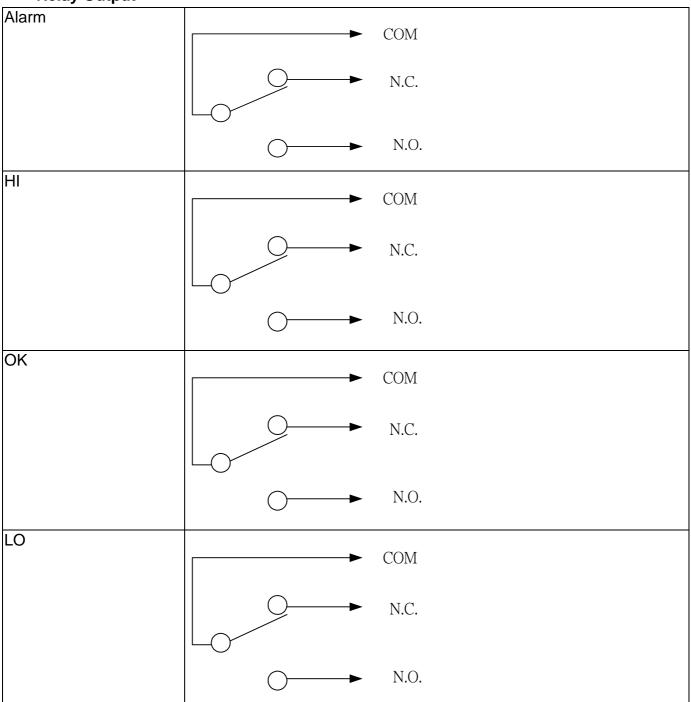


Input commands

"T"=perform TARE function "Z"=perform ZERO function

[RELAY MODULE DIAGRAM]

Relay Output:



Relay Contact Spec

1A/24VDC , 0.5A/125VAC , 0.25A/250VDC

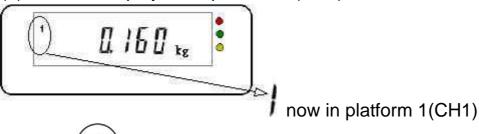
[DUAL PLATFORM OPERATION CH1,CH2]

OPTIONAL

- (1) Set parameter 7(P7) to l_{-} ?.
- (2) Turn off the indicator. Restart the indicator with key pressed. Now you are entered to platform1 (CH1).



- (3) Set the capacity / Resolution and perform calibration of platform 1.
- $^{\prime}$ and switch to platform 2(CH2). (4) Press
- (5) Set the capacity / Resolution and perform calibration of platform 2.
- (6) Turn off the indicator now and then restart.
- (7) Now the display is for platform 1(CH1).



for switch between CH1 and CH2.

Features:

- (1) Each platform has respectively Serial Number and Max. Serial Number.
- (2) Each platform has respectively 10 sets of Hi/Lo, 5 sets of Auto Tare and 5 sets of Pre Tare memories.
- (3) Printing format for two platforms can be set to different one at the same time.

Accumulation:

(1) Accumulation is only allow for either one platform.

[PRODUCT SPECIFICATIONS]

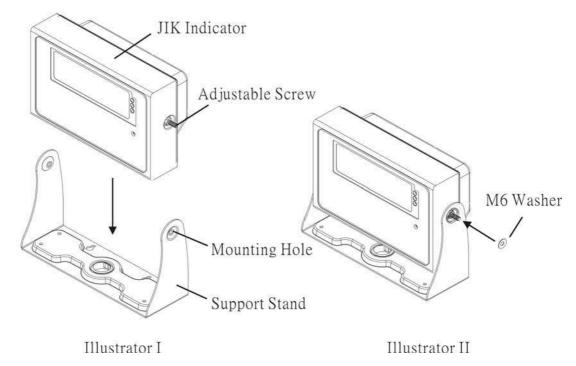
1. General

Enclosure	ABS	S/S					
Demensions	230(W) * 150(H) * 90(D) mm						
Display	6digit 30mm(H) & 3digit 10mm(H) LCD(include EL backlight)						
Units	kg or g , lb , 台斤.兩 , 港斤.兩 , pcs , %						
Power	Adaptor 9V/1A Recharging Battery 6V/3Ah	Adaptor 9V/1A Recharging Battery 6V/3Ah can be selected					
Weight(include Battery)	Approx. 2.5kg	Approx. 2.8kg					

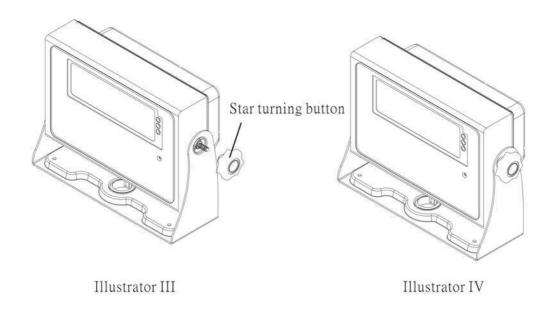
2. ADC and Loadcell

	Mode1	Advanced		
	Transform Mode	Δ – Σ		
ADC	Internal Resolution	Approx. 5,000,000 counts		
ADC	External Resolution	Max. 60,000d(non-OIML)		
	Conversion Speed	10 times/sec		
System Linearity		Within 0.01% of FS		
	Excitation	5VDC \pm 6% , 120mA(drives up to 8 * 350 L.C.)		
Loadce11	Full Scale	-10 ~ 40mV(include dead load)		
	Input Sensitivity	Min. 0.1uV/d(non-OIML)		

[ASSEMBLY MANUAL OF JIK INDICATOR AND SUPPORT STAND]

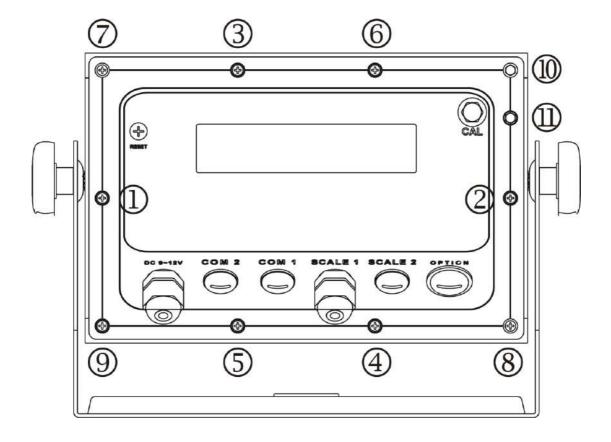


- 1. Using adjustable screw to pass through mounting hole. (illustrator I)
- 2. Put M6 washer onto adjustable screw. (illustrator II)



- 3. Rotating the star turning button into adjustable screw. (illustrator III)
- 4. Adjust the indicator to the best view, and then rotate it tight via star turning button. (illustrator VI)

[FIXING SCREW INSTRUCTION FOR JIK-XSX]



- After connecting load cell and optional devices (RS-232, RELAY), fix all screws attached fallow the above numeric sequence.
- If using an electric screwdriver, set the torque range to 5-7 kgf.cm.
- Sealing screws are to be located at sequence 10 and 11.

SINGLE POINT CALIBRATION FOR WEIGHT

Step I (Enter into calibration mode)

Turn on the scale by holding down key until CAP is shown on the lower left screen, i.e. the scale has entered into the calibration mode.

Note: If the calibration unit, capacity, and resolution have been set, you may skip Steps II~IV and press key to enter into Step V to perform zero point calibration.

Step II (Select Calibration Unit)

You may select calibration unit (kg, g) by use of

Step III (Capacity Setting)

key to shift the flickering digit left or right; press 🐠 any value between 1-9; after setting, press key to enter into the next step.

Step IV (Resolution Setting)

ZERO key to shift the flickering digit left or right; press , when key to set any value between 1-9; after setting, press key to save and show the offset-value; press the weighing pan gently, if the value changes, it's normal.

Note: If you don't want to perform calibration, just power off and the setting are completed.

Step V (Zero Point Calibration)

Press key to perform zero point calibration; when CAL on the lower left stops flickering, zero point calibration is completed with CAL **kg shown.

Note: If the show value is very unstable, press key to enter into stb adjustment function,

key to extend the range of stb (it is recommended to adjust one segment each key to save setting and the zero point calibration time), after confirmation, press will be performed automatically.

Step VI (Single-point Calibration) Note: If to perform three-point calibration, skip this step.

key to shift the flickering digit left or right; press + to adjust the value; input the weight value to be calibrated, and put the correct weight onto the weighing pan, then press key to save and confirm, once

PASS is shown, take away the weight on the weighing pan and restart the machine for normal use.

Step VII (Three-point Calibration)

key for 3 seconds until C-1 is shown at the lower left corner. Press

we and we key to shift the flickering digit left or right First Point C-1: Press and to set values; input the weight value to be calibrated, and put the correct weight onto the weighing pan, press key to confirm and perform calibration.

Second Point C-2: Put the weight to be calibrated onto the weighing pan, the weight value will be shown automatically on the screen; press key to confirm and perform calibration. **Third Point C-3:** Put the weight to be calibrated onto the weighing pan, the weight value will be shown automatically on the screen; press key to confirm and perform calibration. Once PASS is shown, take away the weight on the weighing pan and restart the machine for normal use.

Recalibration: If any error occurs during calibration, press key to return to zero point calibration mode and perform calibration according to the calibration procedures.

Note: The weight value in three-point calibration shall comply with C-1 < C-2 < C-3.