

JIK-8 Series

User's Manual

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【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 -10 ~ 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】

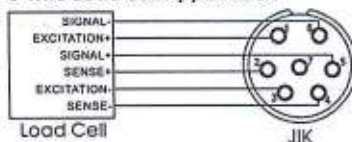
Load Cell connections

■ 7 pin Load Cell connections

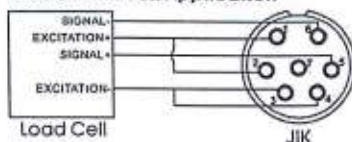


PIN	Load Cell Connections
PIN1	EXCITATION+
PIN2	SENSE+
PIN3	EXCITATION-
PIN4	SENSE-
PIN5	SIGNAL+
PIN6	SIGNAL-
PIN7	GND

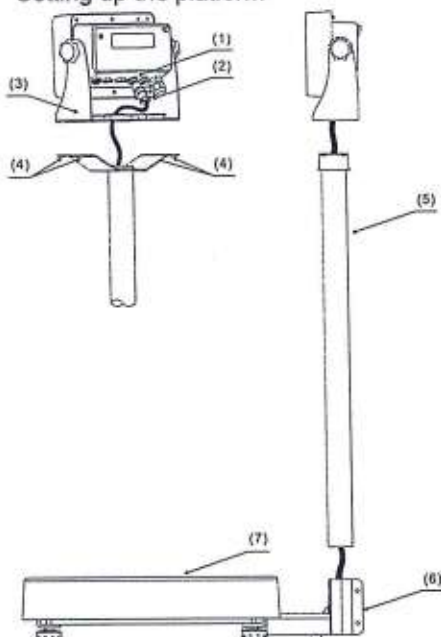
6-Wire Load cell Application



4-Wire Load cell Application



■ Setting up the platform

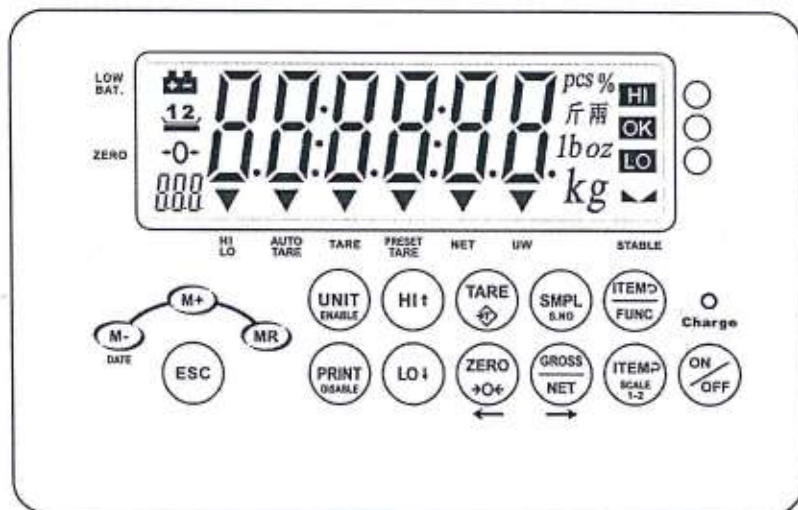


1	Load Cell (male) connector (7 pin)
2	Load Cell (female) connector (7 pin)
3	Indicator Stand
4	Supporter between frame and indicator
5	Pole
6	Pole holder
7	Platform


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

1. Prepare all the parts of platform and JIK indicator.
2. Pull the load cell cable through pole holder (6) and upwards through pole (5), then come out from center of the pole holder (4), and fix the pole with cross-headed screws.
3. Insert pole (5) into pole holder (6) and then tighten the screw.
4. Pull load cell cable through indicator supporter (4) to connect to the indicator. Install Indicator supporter (4) and indicator stand (3) together.
5. Connect the load cell cable to female socket (2), and connect male socket (1), then finished assembling.




LCD display and function of each key















■ LCD display and explanation

LCD display	Explanation
<i>kg</i>	Weighing unit in Kilograms or Grams unit
-0-	" ZERO " sign
▾	Stable sign when the weight reading is stable
<i>pcs</i>	Piece counting function
%	Percentage function
▼	Indication sign for insufficient unit weight, net weight, tare, pre-tare, Hi-Lo limits, auto tare.
000 000	Operation message display
HI OK LO	HI, OK and LO limits indication
<i>lb oz</i>	Additional weighing units
	Battery Power is weak

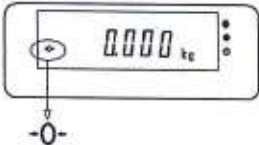
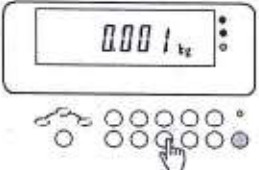

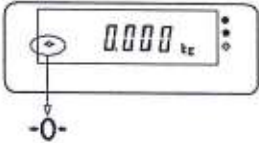
■ Explanation of each key

Position	keys	Main function	Secondary functions
		Turns the indicator on or off	
1		To delete the accumulation weights or certain number of accumulated weight	<ol style="list-style-type: none"> 1. Change the digit when in parameter mode (decreased) 2. Change the number when in HI-LO checking mode 3. Setting of date & time
2		Accumulation	<ol style="list-style-type: none"> 1. Change the digit when in parameter model (increased) 2. Change the number when in HI-LO checking mode 3. Press this key to enter the testing mode 4. Change the setting of accumulation mode



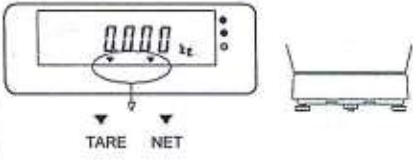



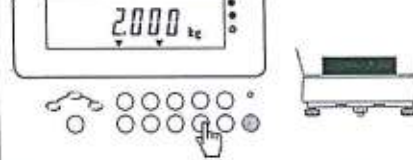

			5. Press this key to set the maximum unit of accumulation
3		Escape from current mode/position	Press to escape from parameter mode without saving the changes
4		Recall total accumulation weights or certain number of accumulated weights	1. Capacity / division setting
5		Switch the weighing unit from one to another	1. Enable auto tare function 2. Enable HI-LO checking function 3. Select the initial weighing unit and setting of the initial weighing unit
6		Send the data stored in memory to printer or PC when pressed	1. Disable auto tare function 2. Disable HI-LO checking function 3. Setting of print format 4. Setting the space when in printing format mode (only for SH-24) 5. Setting of printing mode
7		Enter to HI-LO checking mode for HI Limit	1. Change the digit when in parameter mode (increased) 2. Select the sampling amount in sampling mode (increased) 3. Setting of serial number mode 4. Setting of maximum serial number 5. Setting of time and date 6. Select the print format (increased) 7. Select the accumulation mode (increased)
8		Enter to HI-LO checking mode for LO limit	Same as above (decreased)
9		Tare	1. To enter to pre-tare mode 2. To enter to auto tare mode

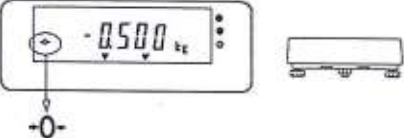


10		Zero	<ol style="list-style-type: none"> 1. Select the initial unit 2. Move the cursor to left when in parameter setting mode
11		Sampling average	<ol style="list-style-type: none"> 1. Setting of serial number mode 2. Setting of maximum serial number
12		Gross/Net Weight	<ol style="list-style-type: none"> 1. Move the cursor to right when in parameter setting mode
13			<ol style="list-style-type: none"> 1. Selection of memory (increased) 2. Enter to parameter mode
14			<ol style="list-style-type: none"> 1. Selection of memory (decreased) or switch key when connect to two platforms.

【 ZERO 】

	<p>(1). The indicators zero point -0- sign is shown in the left diagram. When the display is at zero, this sign will appear.</p>
	<p>(2). Press  to return to zero when the display is without the -0- sign.</p>
	<p>(3). Now, the -0- sign appear and the scale is in zero point.</p> <p>Remarks: The range of zero point is $\pm 2\%$ of the max capacity. Example : the zero range of 60kg is $\pm 1.2\text{kg}$</p>

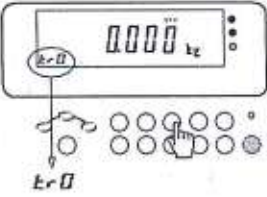



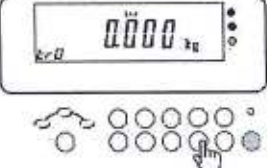


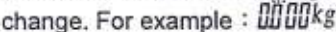



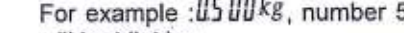


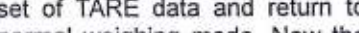
【 TARE 】

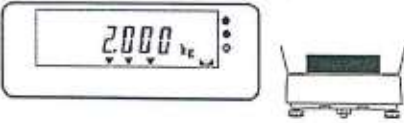
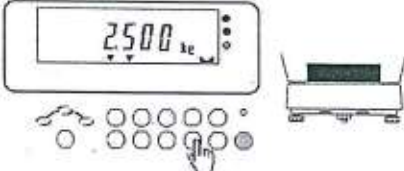

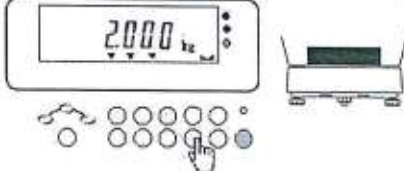

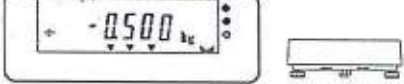


	<p>(1). Place a container, for example 0.500 kg on the weighing pan.</p> <p>(2). Press  key.</p>
	<p>(3). After pressing TARE, indication sign for TARE and NET will appear. The scale is now in net weight condition.</p>
	<p>(4). Place a weight object of 2kg into the container. The net weight is read as 2.000 kg.</p>
	<p>(5). Press  key.</p> <p>(6). Display will show the gross weight as 2.500kg (inclusive of the TARE weight). Net weight sign has disappeared!</p>
	<p>(7). Press  again and display will show the NET weight again as 2.000 kg with the sign point to NET again.</p>

 <p>The diagram shows a digital scale display with the value -0.500 kg. Below the display is a weighing pan. A line connects the display to a $-0-$ symbol.</p>	<p>(8). Remove all objects from the weighing pan and wait for the zero $-0-$ sign to appear.</p>
 <p>The diagram shows the scale display at 0.000 kg. Below the display is a keypad with several buttons. A hand is shown pointing to the TARE key, which is a circle with a diamond shape inside.</p>	<p>(9). Press  key.</p> <p>(10). The NET and TARE signs will disappear and the scale now return's to zero point.</p> <p>Remarks :Weighing Range = Maximum Range – Tare Range</p>

【 PRE-TARE 】

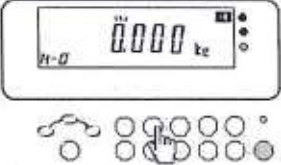

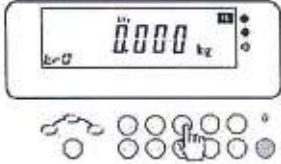



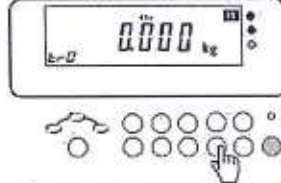



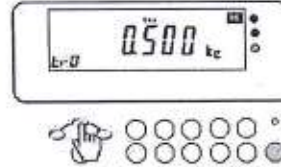


tr0~tr4 5 sets available

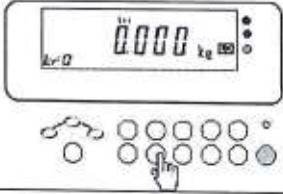
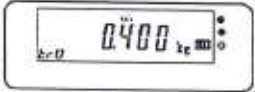
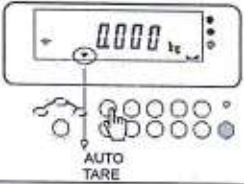
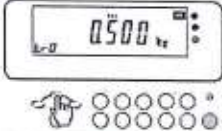
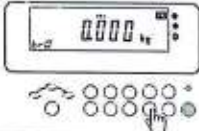
	<p>(1). Under normal weighing mode, press  for 3 seconds, display will show the pre-tare mode with last digit blinking. At the operation message display "tr0"</p> <p>One can also switch from tr0~tr4 by press  or  now.</p>
	<p>(2). Use  or  key to move the cursor to the desired digit for change. For example : </p>
	<p>(3). Press  key to change the digit in increasing manner and  key in decreasing manner. For example :  kg, number 5 will be blinking.</p>
	<p>(4). Press  key to complete one set of TARE data and return to normal weighing mode. Now the display will show  kg, arrow pointing to TARE, PRE-TARE and NET. Zero sign will appear on the display.</p>

	<p>(5). Place the container (0.500kg) and weight mass of 2.000kg on the weighing pan. The display will show 2.000kg, the zero sign will disappear and this 2.000kg will be the NET weight.</p>
	<p>(6). Press  key, now the display will show 2.500kg, arrow pointing to NET disappear. This 2.500kg will be the Gross Weight of the weight mass with the weight of container.</p>
	<p>(7). Press  key once again and you will see the Net Weight 2.000kg again.</p>
	<p>(8). Remove the weight mass and container, display will show -0.500kg.</p>
	<p>(9). Press  key, arrow pointing to Net, Tare, Pre-Tare disappear. The scale return to normal weighing mode with the Zero sign appearing now.</p> <p>Remark : Weighing Range = Max. Range – Tare Range</p>


【AUTO TARE】

tr0~tr4 5sets available






	<p>(1). Under normal weighing mode, press , display enter to Hi / Lo setting mode. The HI indication will appear on the top right corner. The operation message display show "<i>H-0</i>". If instead a "<i>tr0</i>" displayed, skip (2) and jump to (3).</p>
	<p>(2). Press  key now and you may set the HI limit of Auto Tare. The HI indication will appear on the top right corner. The operation message display show "<i>tr0</i>".</p> <p>One can also switch from <i>tr0~tr4</i> by press  or  now.</p>
	<p>(3). Press  or  key to move the cursor to the desired digit for change.</p> <p>Exp: : <i>tr0</i> 0000kg </p>
	<p>(4). Press  key to change the digit in increasing manner and press  key to change the digit in decreasing manner. For example: 0500kg, number 5 will be blinking.</p>

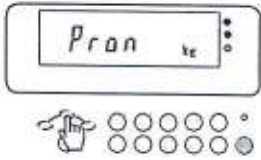
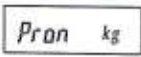
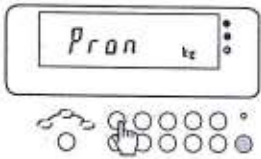
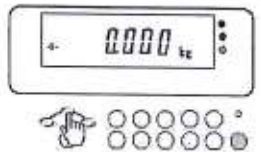
	<p>(5). Press LO1 key now and you may set the LO limit of Auto Tare. The LO indication will appear on the right corner. The operation message display show "Er0".</p>
	<p>(6). Repeat steps (3), (4) and complete the LO limit for Auto Tare. Exp: "2000g".</p>
	<p>(7). Press UNIT key to save and return to normal weighing mode. The arrow pointing to Auto Tare will appear on the display.</p>
	<p>(8). To cancel the Auto Tare function, press HEI or LO1 key. The operation message display will show Erx.</p>
	<p>(9). Press PRINT key to confirm cancel the Auto Tare function and return to normal weighing mode.</p>

【 SELECTION OF WEIGHING UNIT 】

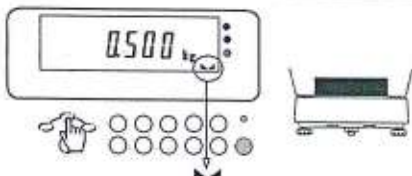
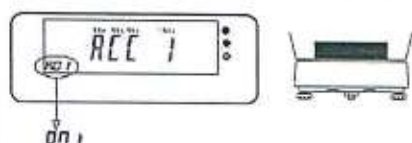
<p>A circular flow diagram showing the sequence of weighing unit selection: kg (g) → lb → PCS → %.</p>	<p>Press  key to select the weighing unit in sequence as shown on the left diagram.</p> <p>Remarks : When using division $\cong 1g$, the unit will be shown as kg when using division $< 1g$, the unit will be shown as g.</p>
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【 UNIT IN USE AND INITIAL WEIGHING UNIT SETTING 】

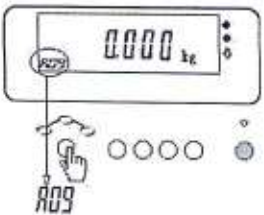

<p>Scale display: 0.0 kg. A hand is shown pressing the UNIT ENABLE key.</p>	<p>(1). Press and hold  key without release and turn on the scale. Until display show  then release .</p>
<p>Scale display: 0.0 kg. A hand is shown pressing the UNIT ENABLE key.</p>	<p>(2). Press  key for selection of different weighing unit, there are 4 weighing units : kg, lb, pcs, % .</p>
<p>Scale display: 0.0 kg. A hand is shown pressing the ZERO key.</p>	<p>(3). Use  key to select the weighing unit to be (ON)(in used) or (OFF)(not in used) .</p>

	<p>(4). Press M+ key to save changes and display will show</p>  <p>for selecting the initial weighing unit when turn on the scale.</p>
	<p>(5). Press UNIT/ENABLE key to select the desired initial weighing unit.</p> <p>Remark : The selected weighing unit must be ON(In used) when select for initial weighing unit</p>
	<p>(6). Press M+ key to save changes and return to normal weighing mode.</p>

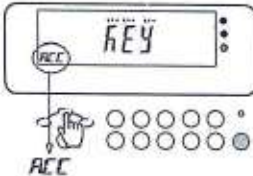

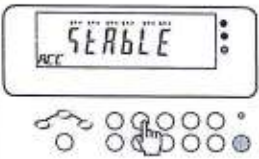


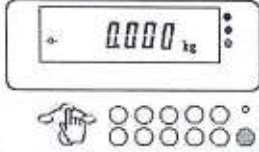

【 ACCUMULATION 】

	<p>(1). Place an object on the pan wait for the stable sign and press M+ key.</p>
	<p>(2). Display will show "ACC 1", and then the weight of the object. At the operation message display, you can see "0.001".</p>

	<p>(3). Remove the first object and place the next object on the pan, press M+ key when stable.</p>
	<p>(4). The display will show "ACC 2" and the weight of the second object. At the operation message display, you can see "ACC 2"</p>
	<p>(5). Repeat procedures (3) and (4), for the desired accumulations</p> <p>(6). Press MR key now, display will show the weight of the last object. The operation message display at left will show [xx (flashing). For example if there are 10 accumulations, it will show C 10.</p>
	<p>(7). Press HI 1 or LO 1 key now and you will see R 10 or C 09 indicates all the 10 accumulations or the weight of the 9th object!</p>
	<p>(8). To delete accumulations, press HI 1 or LO 1 key to recall the respective accumulation or all accumulation. For example: R 10 or C 09.</p>
	<p>(9). Press M- _{DATE} and when the display show DEL-R (meaning to delete all the accumulations) or DEL-09 (to delete the respective accumulation). Press M- _{DATE} key</p>

	<p>to confirm delete</p> <p>(10). If all the accumulations are deleted, the display will return to normal weighing mode. When there is only one single accumulation that has been deleted, the small indication will blink and you need to press  key to return to normal weighing mode. You can also repeat procedures (6) ~ (10) for deleting other accumulations.</p> <p>Remarks : Maximum number of accumulation is 99 units</p>
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【 ACCUMULATION MODE 】

	<p>(1). Under normal weighing mode press  key, display will show <i>KEY</i>. Operation message display will show <i>ACC</i>.</p>
	<p>(2). Use  or  key to select the accumulation mode (please refer to chart below).</p>
	<p>(3). Press  key to complete the setting and return to normal weighing mode.</p>

※ Accumulation mode:

KEY : Accumulate manually by pressing.

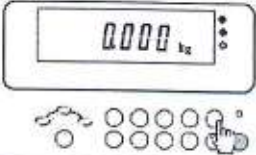


STABLE : Accumulate when the weight is stable.

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

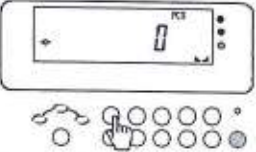

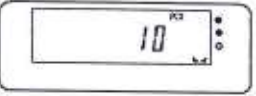
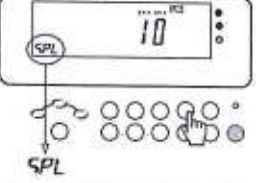

Remark: accumulation is workable without enable the HI-LO checking function.

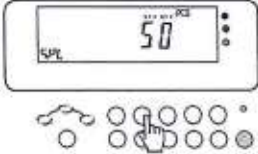
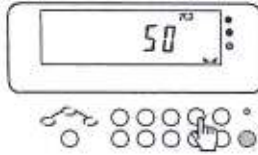
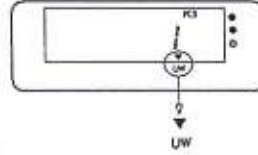
【 MAX ACCUMULATION SETTING 】

	<p>(1). Press M+ for 3 seconds, display will show 99 (this is the default maximum number of accumulation) . The upper right corner will show HI and the operation message mode show "ACC".</p>
	<p>(2). Press ZERO or GROSS/NET key to move the cursor to digit wish to be changed.</p>
	<p>(3). Use M+ or M-/DATE key to change the maximum accumulations. For example setting to 20 maximum accumulations.</p>

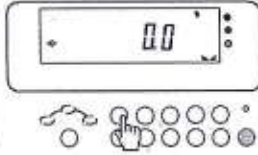
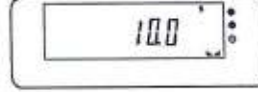
	<p>(4). Press  key to return to normal weighing mode.</p>
	<p>(5). When the accumulations reach 20 times, the internal alarm will beep and no more accumulations are allowed. The display will show ACC20 (flashing) as a signal indicating that maximum accumulations is reached (this function applied to all accumulation mode).</p>

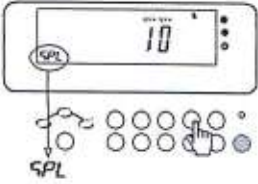

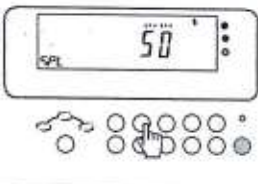


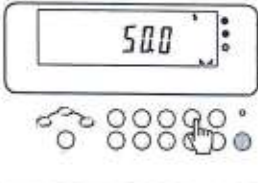

【 SIMPLE COUNTING 】

	<p>(1). Press  key to select the <i>pcs</i> as weighing unit.</p>
	<p>(2). Place the sampling quantity on the pan. (You can choose the sampling quantity as 10 · 25 · 50 · 100<i>pcs</i> only!)</p>
	<p>(3). Press  key, display show the number of the sampling as 10<i>pcs</i> (flashing) and the operation message display will show "SPL".</p>

	<p>(4). Press HI or LO key to select the sampling quantity. For example, if you select 50pcs for sampling quantity, 50pcs (flashing) will be displayed on the screen.</p>
	<p>(5). Press SMPL key to complete the sampling procedures. Now the scale is ready for simple counting. Put the same objects on the pan for counting.</p>
	<p>Remarks :If the sampling quantity's unit weight for 1pcs is $\cong 0.8$ x division , indication of insufficient unit weight will point to uw.</p>

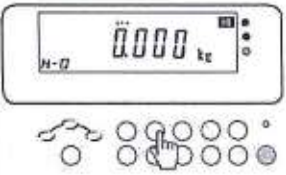

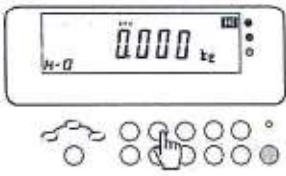

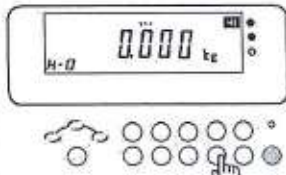


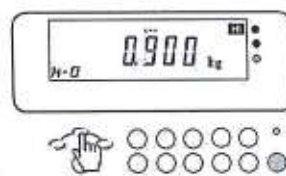


【 PERCENTAGE % 】

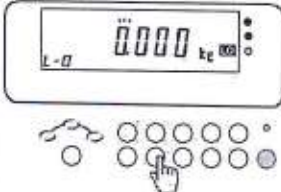

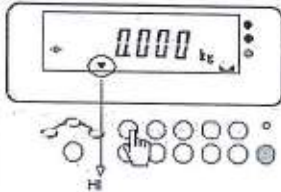





	<p>(1). Press UNIT key to select % as weighing unit.</p>
	<p>(2). Place the sampling quantity on the pan.(You can choose the sampling quantity as 10, 25, 50 or 100 %)</p>

	<p>(3). Press  key, display show the number of it as 10 % (flashing) and the operation message display will show "SPL" indicate now is in sampling mode.</p>
	<p>(4). Press  or  key to select the sampling quantity. For example, if you select 50 % for sampling quantity; 50 % (flashing) will be displayed on the screen.</p>
	<p>(5). Press  key to complete the sampling procedures. Now the scale is ready for percentage weighing. Put object on the pan for percentage weighing</p>

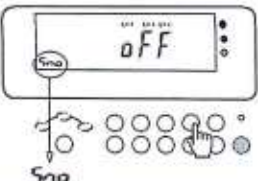

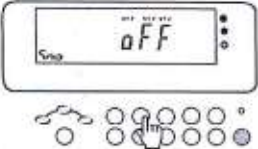


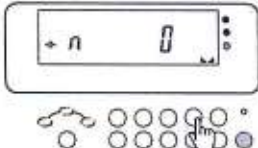

【 HI / LO CHECKING 】

H-0~H-9 · L-0~L-9 -- 10 sets available

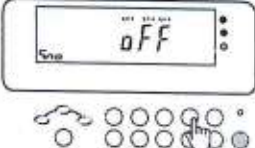
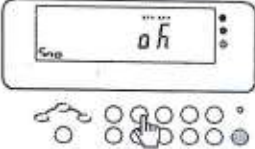
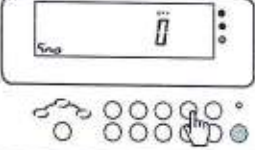
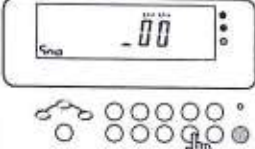
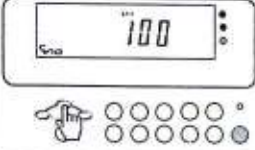
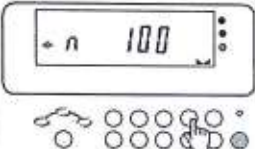
	<p>(1). Under normal weighing mode press  key, display enter to HI / Lo setting mode. The HI indication will appear on the top right corner. The operation message display show "H-0".</p>
	<p>(2). If the operation message display does not show H-0, press  key to make sure you can read H-0 at the operation message display.</p>
	<p>(3). Press  or  key move the cursor to the digit you want to change.</p>
	<p>(4). Press  or  key to enter the number.</p> <p>(5). Repeat (3) · (4) to complete the setting of HI limit.</p>

	<p>(6). Press  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-L.</p> <p>(7). Repeat (3), (4), (5) to complete the setting of LO limit.</p>
	<p>(8). Press  key to activate the checking function and press  key to disable this function. At this point, the arrow pointing to HI-LO checking will appear and HI-LO checking function is ready for operation.</p>
<p>(9). To cancel the function of HI-LO checking, press  or  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 disabled.</p> <p>Remarks : LO limits must be \cong HI limits</p>	

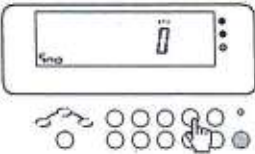
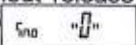
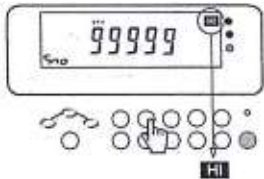
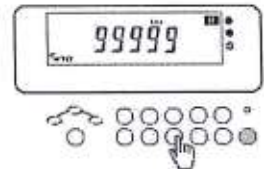
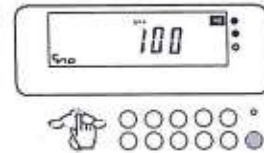

【 SERIAL NUMBER 】

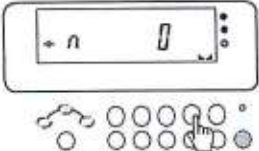

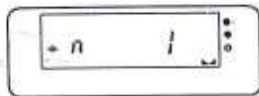
	<p>(1). Press  key display will show <i>aFF</i> (flashing) and operation message display will show <i>Σno</i>.</p>
	<p>(2). Press  or  to select the desired serial number mode. Please refer to below diagram.</p>
	<p>(3). After select, press  key to return to weighing mode, display will now show <i>n 0</i> for serial number, except if the setting is in <i>aFF</i> mode.</p>
<p>※ Mode of serial number :</p> <ul style="list-style-type: none"> <i>aFF</i> : No action. <i>ΣABLE</i> : The serial number plus 1 (+1) when the stable sign appear. <i>aF</i> : Serial number plus 1 (+1) when the weight is in between HI -LO checking limits. This function is valid even if the HI-LO checking function is disabled. <i>ΣaP</i> : Pause! No adding of serial number but display will still show the last serial number when there is nothing on the pan. 	

【 STARTING SERIES NUMBER SETTING 】

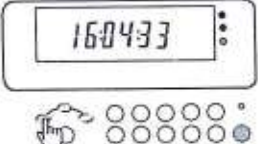

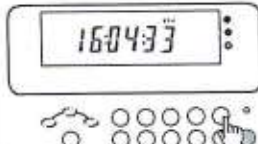





	<p>Under normal weighing mode, press SMPL key to enter to setting of serial number mode. Display will show SN aFF</p>
	<p>(1). Press HI or LO key to setting of serial number mode. Example : Setting is "OK"</p>
	<p>(2). Press SMPL key for 3 seconds, display will show SN "0"</p>
	<p>(3). Press ZERO or GROSS/NET key to move the cursor selected digit for change. Example : Serial number starting from 100, then move the cursor to : SN "-00"</p>
	<p>(4). Use M+ or M- DATE key to key in the number. Example : 100 is the starting serial number SN "100"</p>
	<p>(5). Press SMPL key to save the changes and return to normal weighing mode. Now the starting serial number is 100</p> <p>Remarks : Max. serial number is 99999</p>

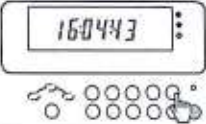

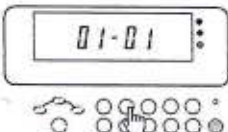


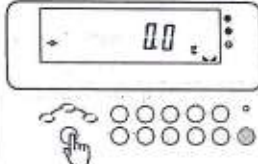

【 MAX SERIAL NUMBER SETTING 】

	<p>(1). press SMPL key without release and display will show </p> <p>Remark : if the serial number is been set before, by pressing SMPL it will show the first serial number.</p>
	<p>(2). Press HI key display will show symbol HI on the right corner meaning the scale is in setting of maximum serial number mode.</p>
	<p>(3). Press ZERO or GROSS key to move the cursor to the digit wish to change. (default : 99999)</p>
	<p>(4). Use M+ or M- key to change the number. For example maximum serial number is 100 and key in</p> 

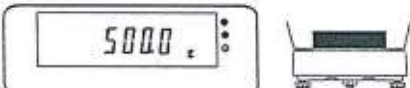
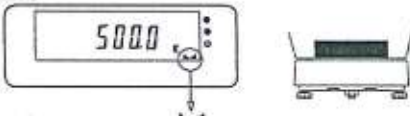
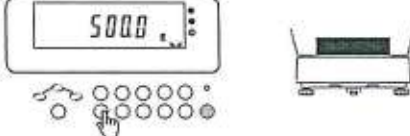

	<p>(5). Press  key to complete the setting and return to normal weighing mode. The operation message display will show the starting serial number.</p>
	<p>(6). When the serial number reaches the maximum serial number, it will restart from serial number 1 again.</p>
<p>Remark : max serial number must > starting serial number</p>	

【 TIME AND DATE SETTING 】

	<p>(1). Under normal weighing mode press  key display will show the time.</p>
	<p>(2). Press  key to enter to time setting mode. Last digit is flashing.</p>
	<p>(3). Press  or  key to move the cursor and press  key to change the setting.</p>

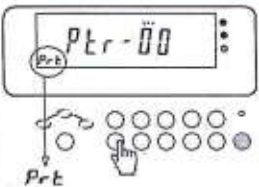

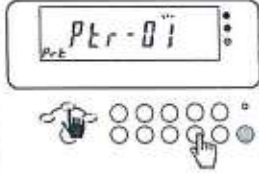




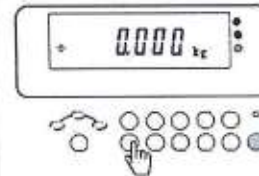

	<p>(4). Press  key to complete the setting.</p>
	<p>(5). Press  or  key to select setting of month, date and year. (6). Repeat (2), (3), (4) for setting of month, date and year.</p>
	<p>(7). Press  key to complete and return to normal weighing mode. Remarks : After switching off the indicator, the date/time will be erased unless if this indicator is equipped with RTC + Rs232.</p>

【 PRINT 】

	<p>(1). Place the object on the pan.</p>
	<p>(2). Wait for the stable symbol.</p>
	<p>(3). Press  to print. Remarks : This function is workable only with the purchased of RS-232 interface and compatible printer (P3 should also be set to compatible printer).</p>

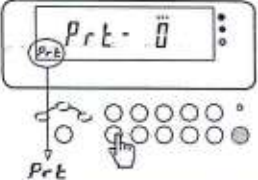
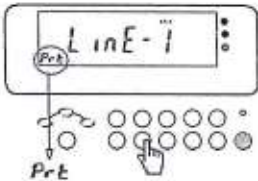
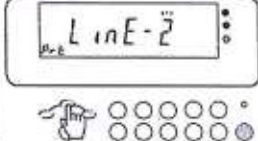
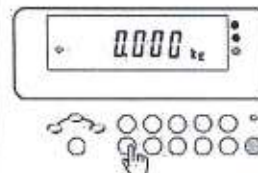
【 PRINTING FORMAT SETTING 】

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

	<p>(1). Under normal weighing mode</p> <p>press  key when the pan is empty. Display $Prt-00$, (flashing) and the operation message display will show Prt.</p> <p>Remark: If P3 was set to $HI\ LIMIT$, the scale will then enter to HI limit setting.</p>
	<p>(2). Press  or  key to move the cursor and use  or  key to key-in number. In total there are 100 print format available for choose.</p>
	<p>(3). Press  key to complete the chosen and return to normal weighing mode.</p>
<p>Note :</p> <ol style="list-style-type: none"> 1. There are three options of printers available: SH-24 (dot-matrix printer), SH-16, BP-443D (Label printer) or EZ-2P (Label printer). 2. U-KEY Connector used to connect scale and PC, and output the weighing data to PC in forms of Excel or Word and so on. 	

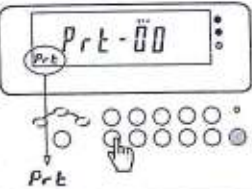

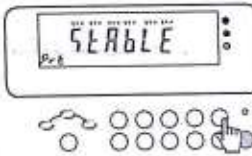

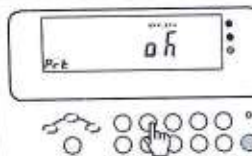


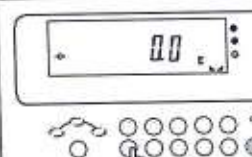

【SPACE BETWEEN LINES WHEN PRINTING】

Only available for SH24 / normal

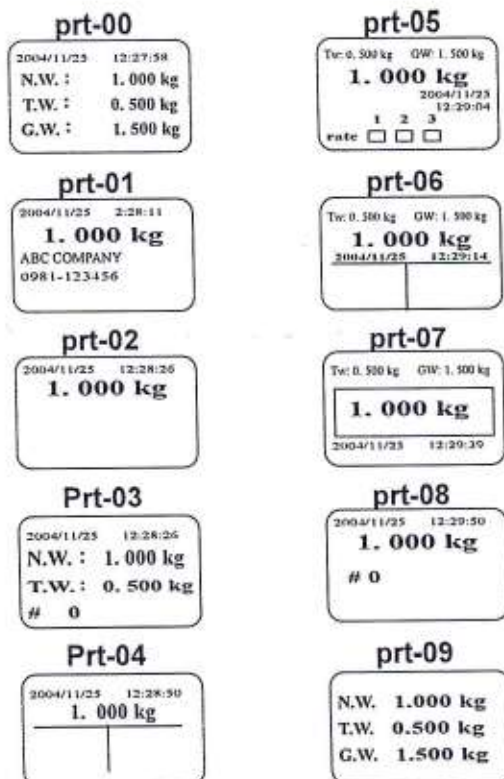
	<p>(1). In parameter for printer(P3) choose the setting to SH-24 / NORMAL</p>
 <p>The diagram shows a digital display with 'Prt-0' and three dots on the right. Below the display is a keyboard with a hand pointing to the 'Prt' key.</p>	<p>(2). Press PRINT ENABLE key and display shows $Prt-0$. The operation message display will show Prt.</p>
 <p>The diagram shows a digital display with 'Line-1' and three dots on the right. Below the display is a keyboard with a hand pointing to the 'LOI' key.</p>	<p>(3). Press LOI key, display show $Line-1$. The operation message display will show Prt.</p>
 <p>The diagram shows a digital display with 'Line-2' and three dots on the right. Below the display is a keyboard with a hand pointing to the 'M+' or 'M-' key.</p>	<p>(4). Press M+ or M- key to set the number of empty lines (space) when printing. {minimum =0 · maximum=9}</p>
 <p>The diagram shows a digital display with '0000 kg' and three dots on the right. Below the display is a keyboard with a hand pointing to the 'PRINT DISABLE' key.</p>	<p>(5). Press PRINT DISABLE key to complete the setting and return to normal weighing mode.</p>

【PRINTING MODE SETTING】

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

	<p>(1). Press  key. Display show <i>Prt-00</i>, operation message display show <i>Prt</i>.</p>
	<p>(2). Press  key. Display will show the printing mode. Example : <i>STABLE</i>.</p>
	<p>(3). Use  or  key to select the printing mode. (refer to the below mentioned chart)</p>
	<p>(4). Press  key to save changes and return to normal weighing mode.</p>
<p>※</p> <p><i>KEY</i> : Print manually by pressing PRINT key</p> <p><i>Cont.n</i> : Print continuously when connecting to PC or large LED Display</p> <p><i>no</i> : No action</p> <p><i>STABLE</i> : Print after stable symbol appear</p> <p><i>aH</i> : Print when weight is between HI-LO limits (this function is valid even if HI-LO checking function is disabled)</p>	

【 Samples of BP-443D / EZ-2P Printing Format 】




* 10 Print format are preset in printer by Manufacture *

Note :

- (1) Please contact your supplier/-dealer for additional EZ-2P & BP-443D print formats.
- (2) A memory card has to be installed in EZ-2P.
(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 **RECO3** appear under display of accumulation,
press  key the print-out will like as following.

Prt-00	0.379kg
Prt-01	2002/01/01 00:09:23 0.379kg
Prt-02	#1 0.379kg
Prt-03	2002/01/01 00:09:23 #1 0.379kg
Prt-04	N.W: 0.379 kg T.W: 0.100 kg G.W: 0.479 kg
Prt-05	2002/01/01 00:09:23 N.W: 0.379 kg T.W: 0.100 kg G.W: 0.479 kg
Prt-06	#1 N.W: 0.379 kg T.W: 0.100 kg G.W: 0.479 kg
Prt-07	2002/01/01 00:09:23 #1 N.W: 0.379 kg T.W: 0.100 kg G.W: 0.479 kg

```

2002/01/01 00:09:23
(1) 0.100 kg
(2) 0.100 kg
(3) 0.100 kg
-----
      0.300 kg
-----
      0.300 kg
  
```

Remark :


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

【Samples of SH-16 Printing Formats】

```

Prt-00 0.379kg
Prt-01 2002/01/01
        00:09:23
        0.379kg
Prt-02 #1 0.379kg
Prt-03 2002/01/01
        00:09:23
        #1 0.379kg
Prt-04 N.W: 0.379 kg
        T.W: 0.100 kg
        G.W: 0.479 kg
Prt-05 2002/01/01
        00:09:23
        N.W: 0.379 kg
        T.W: 0.100 kg
        G.W: 0.479 kg
Prt-06 #1
        N.W: 0.379 kg
        T.W: 0.100 kg
        G.W: 0.479 kg
Prt-07 2002/01/01
        00:09:23
        #1
        N.W: 0.379 kg
        T.W: 0.100 kg
        G.W: 0.479 kg

```

When **000** appear under display of accumulation, press  key the print-out will like as following.

```

2002/01/01
00:09:23
(1) 0.100 kg
(2) 0.100 kg
(3) 0.100 kg
-----
0.300 kg

```

Prt-08 -----

Prt-09 2002/01/01
09:20:45

Remark :

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

【 U-KEY Printing Format 】

prt-00

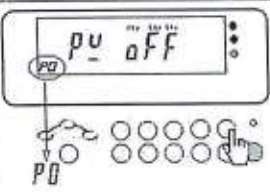


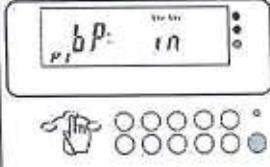


2000-01-01	00: 06: 26	0. 199
------------	------------	--------

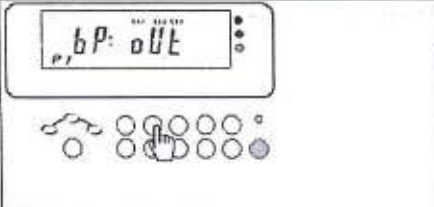


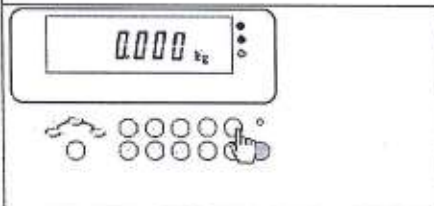

prt-01

0. 199



Note: With U-KEY connecting wire, the scale could output its weighing data to Excel or word and other system (compatible with WinXP/Win7).

【 PARAMETER SETTING 】

	<p>Press  key without release and turn on, or under normal weighing mode press  key for 3 seconds. Display will show $P_u: "aFF"$ and the operation message mode show P_a.</p>
	<p>(1). Press  or  key to choose each parameter (please refer to below chart) .</p>

	<p>(2). Press  or  key to choose desired setting.</p>
	<p>(3). When setting is complete, press  key and return to normal weighing mode.</p>

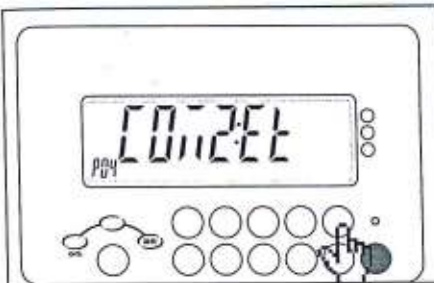


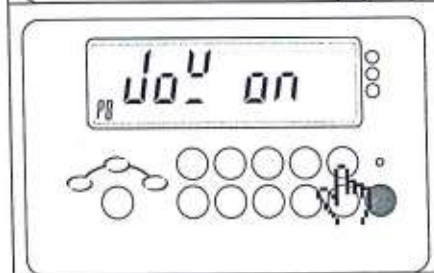
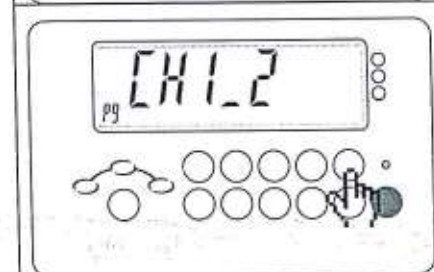
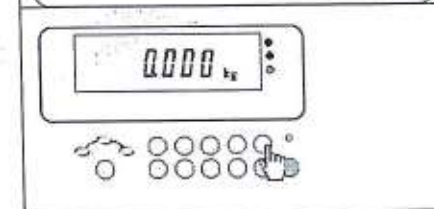

【 PARAMETER 】

No	Function	Display	Detail
P0	Auto Power Off (Weights < 20d)	oFF	Off (No action)
		5	5 minutes
		10	10 minutes
		30	30 minutes
		☆ 60	60 minutes
		90	90 minutes
P1	Beeping (The effect of this parameter is to determine when to have beep sounds during HI/LO/OK checking.)	☆ i n	Scale : Enable the HI-LO checking functions , beeps when the range is between HI & LO
		oUt	Scale : Enable the HI-LO checking functions, beeps when the range is out of HI & LO
		E i n	Option : Relay with light tower : beeps when the range is between HI & LO
		E oUt	Option : Relay with light tower : beeps when the range is out of HI & LO
P2	HOLD (able to hold the displayed weight after load is remove)	☆ oFF	No action of Hold
		o n	Able to hold the displayed weight and print at the same time after pressing print key  (when there is loading) . Press Key  to clear
P3	Printer type Setting of this parameter determines the data format for the connected printer type	☆ no-USE	No printer
		no r i P L	N/A
		U-K E Y	Work with PC and output the weighing data to Excel or others, and it is compatible with WinXP/Win7
		5H-24	Normal dot-matrix printer
		7E b r R	Label printer
		bP-443	Label printer
		E P -2P	Label printer
		U o d E Y	Label printer
E E	LED big display		

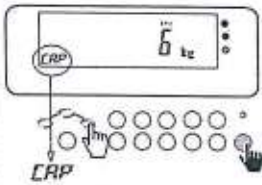
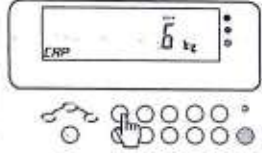
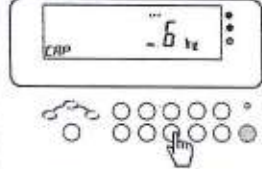
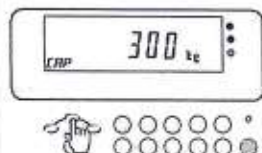
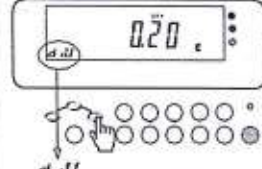
		CX	CX big display
		SH-16	Dot-matrix printer
P4	COM2	E4	CX Display
		E4	LED Display
P5	RS-232 Baud Rate Setting of this parameter determines RS-232 data transmission rate.	2400	
		4800	
		☆ 9600	
		19200	
P6	RS-232 Data Format Setting of this parameter determines the RS-232 transmission data format.	☆ n81	
		o81	
		E81	
		n71	
		o71	
		E71	
P7	Backlight	oFF	No Backlight
		on	Backlight is on always
		☆ 5RuE	Backlight when stable sign appear. Off automatically 5 seconds after stable weighing
		Auto	Auto (backlight is actuated when weight loading is over 20d)
P8	JOW switches	on	Channel 2 for JOW
		oFF	Channel 2 for SCALE 2
P9	Channel	☆ 1	Channel 1
		2	Channel 2
		1,2	Dual Channel


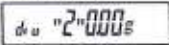

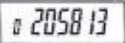
Note: the default setting for A19 12C, when P4 is used.

【Connect JIK-8 to JOW and LED】

	<p>(1). Long press  under the normal weighing condition, and choose the parameter P4, and set ET.</p> <p>Note: or long press  when power is on scale, and enter the parameter setting.</p>
	<p>(2). Choose the parameter P8, and set on to turn on the JOW function.</p>
	<p>(3). Choose the parameter P9, and set 1_2 to turn on two channels.</p>
	<p>(4). Press  to save all parameter and back to normal weighing mode.</p>

【 CAPACITY/RESOLUTION SETTING 】

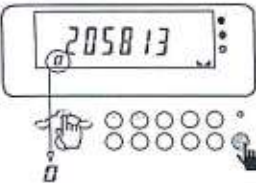
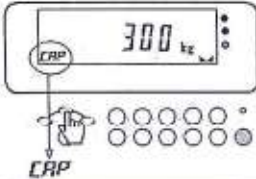
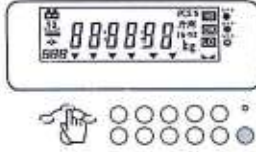
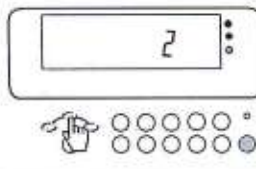
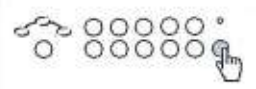
	<p>(1). Press MR key and turn on the scale. Display will show capacity of the scale (flashing), operation message display will show CAP</p>
	<p>(2). Press UNIT key to select the weighing unit.</p> <p style="text-align: center;">kg ↓ g ↓ lb</p>
	<p>(3). use ZERO or GROSS/NET key move the cursor to the <u>digit</u> which needs to be change CAP "-6kg</p>
	<p>(4). Press M+ or M- key to enter the desired capacity and complete the setting</p> <p style="text-align: center;">CAP "300kg</p>
	<p>(5). Press MR key and enter into setting of resolution mode. Display will show the resolution (flashing) and operation message display will indicate d U symbol.</p>

	<p>(6). Repeat steps (3), (4) to complete setting of resolution.</p> <p>Exp : </p>
	<p>(7). Press MR key and display will show the internal self checking value and stop. This means that setting of capacity/resolution is completed.</p> <p>Example : </p> <p>Turn off the scale and turn on again.</p>
<p>Note :</p> <p>Maximum capacity to be set for this indicator is 400000kg.</p> <p>Minimum division to be set for this indicator is 0.01g.</p> <p>Whenever the capacity / resolution is set or changed, be sure to re-calibrate according to calibration procedure located in service manual.</p>	

【 Division Configuration Chart 】

	Kg		g		lb
Max	5000kg	Max	5000g	Max	500lb
	2000kg		2000g		200lb
	1000kg		1000g		100lb
	500kg		500g		50lb
	200kg		200g		20lb
	100kg		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
	0.05kg		0.05g		0.005lb
	0.02kg		0.02g		0.002lb
	0.01kg		0.01g		0.001lb

【 TESTING MODE 】

	<p>(1). Press M+ key and turn on the scale. Display will show the internal count value and operation message display show 0.</p>															
	<p>(2). Press M+ key, display will show the setting of capacity, the operation message display will show CRP.</p>															
	<p>(3). Press M+ key and all segments in display are appearing. This is to check if the display is in good condition.</p>															
	<p>(4). Press M+ key display show 2, this is to check the key function condition.</p>															
	<p>(5). After testing completed press ON/OFF key to switch off.</p>															
<p>※ Relative position</p> <table style="width: 100%; border: none;"> <tbody> <tr> <td style="width: 33%;">1 : Memory cancel</td> <td style="width: 33%;">6 : print</td> <td style="width: 33%;">11 : Sampling</td> </tr> <tr> <td>2 : accumulation.</td> <td>7 : HI limit</td> <td>12 : Net/gross</td> </tr> <tr> <td>3 : escape.</td> <td>8 : LO limit</td> <td>13 : Item/Function</td> </tr> <tr> <td>4 : Memory recall</td> <td>9 : Tare</td> <td>14 : Item/Scale</td> </tr> <tr> <td>5 : Unit.</td> <td>10 : Zero</td> <td></td> </tr> </tbody> </table>		1 : Memory cancel	6 : print	11 : Sampling	2 : accumulation.	7 : HI limit	12 : Net/gross	3 : escape.	8 : LO limit	13 : Item/Function	4 : Memory recall	9 : Tare	14 : Item/Scale	5 : Unit.	10 : Zero	
1 : Memory cancel	6 : print	11 : Sampling														
2 : accumulation.	7 : HI limit	12 : Net/gross														
3 : escape.	8 : LO limit	13 : Item/Function														
4 : Memory recall	9 : Tare	14 : Item/Scale														
5 : Unit.	10 : Zero															

【ERROR MESSAGES】

Error Message	Reasons / Possible Caused	Solutions
E0 <i>no EE</i>	The CPU unable to read the EEPROM	Contact the manufacturer or nearest agent
E1 <i>ERL-d</i>	Unable to read the 3 points calibration range	Refer to "service manual" for calibration procedures
E2 <i>PHi</i>	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 <i>PLo</i>	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 <i>UnStAb</i>	Unstable zero point	(1) Make sure there is no winds or vibration. (2) Check the connections of wires.
E5 <i>LE-oF</i>	(1)Load cell spec. not compatible. (2)calibrating weights mistake	(1) Replace with a compatible load cell. (2) Change with correct calibrating weights.
E6 <i>no LE</i>	Load cell read out always the same	(1)Check if load cell wires are connected correctly.
E10 <i>ELh-b</i>	Optional RS-232(RTC) batteries run out	Replace the batteries
E11 <i>diFF</i>	Unable to accumulate. Two objects are with different units.	Press M- DATE twice to clear all accumulation data or press esc and return to normal weighing mode.

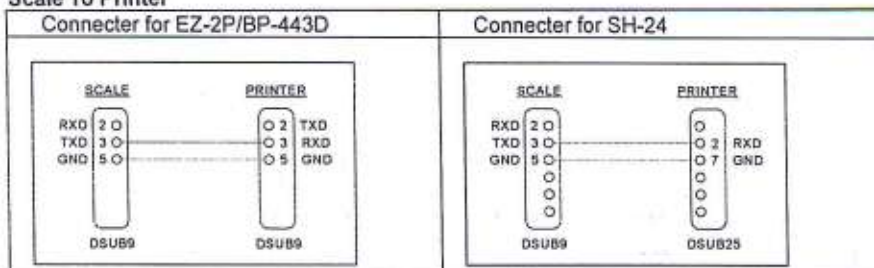
E12 <i>au-XX</i>	Accumulation data exceed preset maximum	Press M- DATE twice to clear all accumulation data or press ESC and return to normal weighing mode.
E13 <i>LoHi</i>	Hi / Lo setting incorrect	Press HI or LO key and reset Hi / Lo value.
E20 <i>XXXXX</i>	External division over Maximum (XXXXX is external resolution)	Press MR and reset Capacity / Resolution
E21 <i>duL XX</i>	Capacity / Resolution Setting inaccurate.	Press MR 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 ON/OFF 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 】

0	1	2	3	4	5	6	7	8	9			
0	1	2	3	4	5	6	7	8	9			
A	B	C	D	E	F	G	H	I	J	K	L	M
A	b	C	d	E	F	G	H	i	J	k	L	m
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
n	o	p	q	r	s	t	u	v	w	x	y	z

【CONNECTER】

Scale To Printer



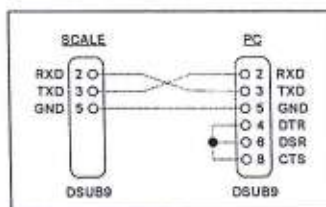
Scale To PC

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.

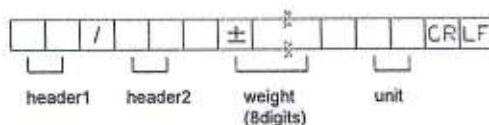
【DATA PROTOCOL】

● 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



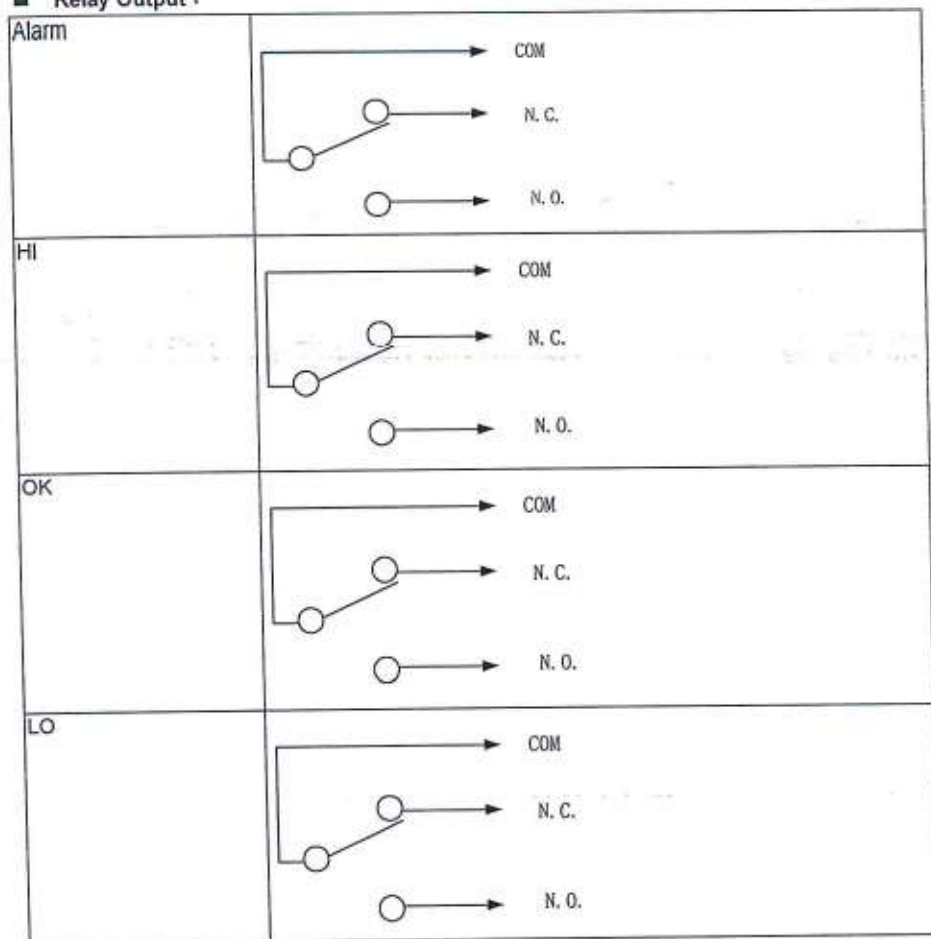
● Input commands

T =perform TARE function

Z =perform ZERO function

【RELAY MODULE DIAGRAM】

■ Relay Output :



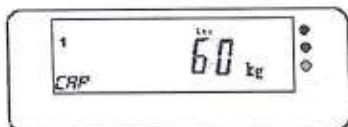
■ Relay Contact Spec

1A/24VDC · 0.5A/125VAC · 0.25A/250VDC (Reminder: suggest to adding a ferrite core on the cables)

【 DUAL PLATFORM OPERATION CH1,CH2 】

(1) Set parameter 8(P8) to 1.2.

(2) Turn off the indicator. Restart the indicator with **MR** key pressed. Now you are entered to platform1 (CH1).



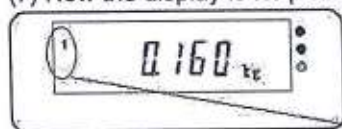
(3) Set the capacity / Resolution and perform calibration of platform 1.

(4) Press **ITEM-SCALE 1-2** and switch to platform 2(CH2).

(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).



now in platform 1(CH1)

(8) Press **ITEM-SCALE 1-2** 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】

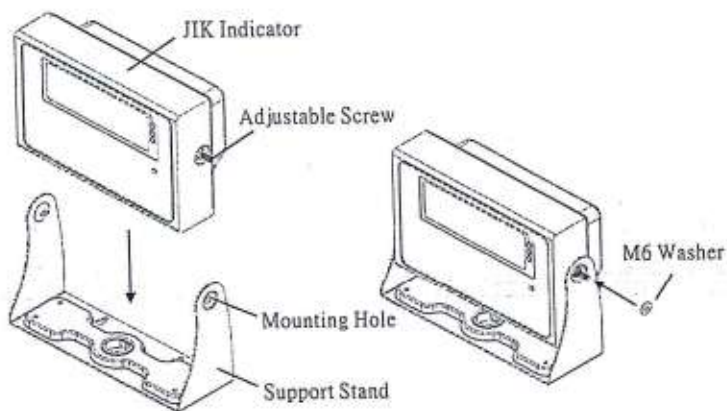
1. General

Enclosure	ABS	S/S
Dimensions	230(W) * 150(H) * 90(D) mm	
Display	6digit 30mm(H) & 3digit 10mm(H) LCD(include EL backlight)	
Units	kg or g , lb , 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

Model		Advanced
ADC	Transform Mode	$\Delta - \Sigma$
	Internal Resolution	Approx. 5,000,000 counts
	External Resolution	Max. 6,000d(OIML) Max. 60,000d(non-OIML)
	Conversion Speed	10 times/sec
System Linearity		Within 0.01% of FS
Loadcell	Excitation	5VDC \pm 6%, 120mA (drives up to 8 * 350 L.C.)
	Full Scale	-10 ~ 40mV(include dead load)
	Input Sensitivity	Min. 0.7uV/d

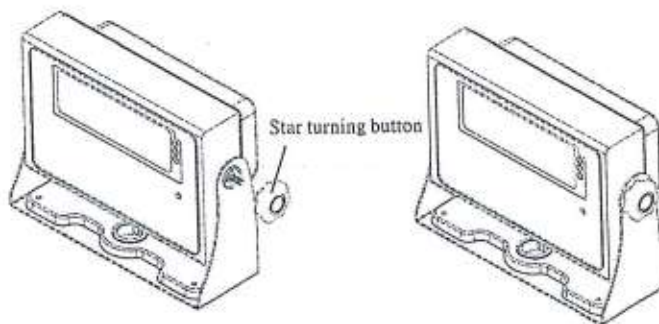
【 ASSEMBLY MANUAL OF JIK INDICATOR AND SUPPORT STAND 】



Illustrator I

Illustrator II

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



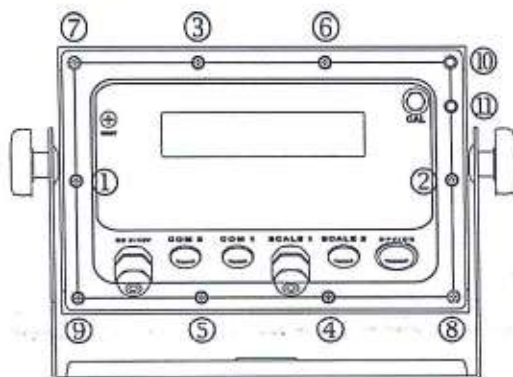
Illustrator III

Illustrator IV

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)

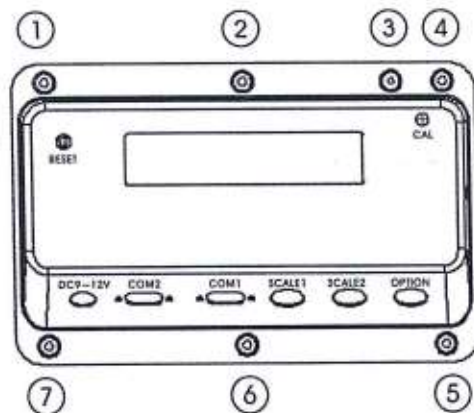
【 FIXING SCREW INSTRUCTION FOR JIK 】

Stainless Steel Series



- After connecting load cell and optional devices (RS-232, RELAY), fix all screws attached follow the above numeric sequence.
- If using an electric screwdriver, set the torque range to 5-6 kgf.cm.
- Sealing screws are to be located at sequence CAL and 11.

ABS Series



- Sealing screws are to be located at sequence CAL and 4.
- Grounding wire to be connected on position 3.

【 SINGLE POINT CALIBRATION FOR WEIGHT 】

Step I (Enter into calibration mode)

Turn on the scale by holding down **MR** 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 **MR** 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 **UNIT** key.

Step III (Capacity Setting)

Press **ZERO** or **GROSS** key to shift the flickering digit left or right; press **M+**, **M-** key to set any value between 1-9; after setting, press **MR** key to enter into the next step.

Step IV (Resolution Setting)

Press **ZERO** or **GROSS** key to shift the flickering digit left or right; press **M+**, **M-** key to set any value between 1, 2, 5; after setting, press **MR** key to save and show the offset-value; press the weighing pan gently, if the value changes, it's normal.

Step V (Zero Point Calibration)

Press **MR** 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 **UNIT** key to enter into stb adjustment function, use **MR** key to extend the range of stb (it is recommended to adjust one segment each time), after confirmation, press **M+** key to save setting and the zero point calibration will be performed automatically. Or use **MR** to skip the zero point calibration, and use last zero point directly.

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

Press or 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)

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

First Point C-1: Press , , and key to shift the flickering digit left or right 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 $C-1 < C-2 < C-3$.