

- **“RNG 03”**: Follow the above procedure, only remember that you have to enter the DIV, DECIMAL and CAP thrice instead of once or twice. The maximum number of counts allowed for each capacity range will be 10000 counts or less, and hence the setting should be entered accordingly.

NOTE: Please make sure that for “RNG 02” and “RNG 03”, the lower DIV and CAP is entered first, and then the higher DIV and CAP.

G) **BATTERY:**

The indicator uses a 6V Sealed lead acid rechargeable Battery. The user must make sure to connect the battery correctly, that is the RED wire should be attached to the RED (+) end of the battery and the BLACK wire should be attached to the BLACK (-) end of the battery. Wrong connections can damage the battery and the indicator beyond repairs, so be very careful while making the connections.

Also note:

- Please charge the battery for at least 20 hours before using the indicator for the first time.
- The battery automatically gets charging once the indicator power cable is plugged in to the mains; hence only make sure that the GREEN LED on the top right side of the display is ON.
- If the scale is not used for long, the battery will discharge under self leakage, and hence should be charged from time to time. Ideally the battery should be charged for at least 10 to 12 hours every two months to prolong the battery life.

H) **MAINTENANCE:**

Please note the following points of care for the indicator to prolong its life:

- For appropriate display clarity the indicator should not be placed in direct sunlight, and must be placed on a sturdy platform. Heavy vibration and highly dusty area also seriously affect the life of the indicator.
- Make sure to turn off the power while installing or removing the power cable of the indicator from the mains supply.
- Make sure to switch off the indicator while connecting or removing the loadcell connector.
- Make sure that the loadcell connector is properly connected to the indicator, and secured with the screws provided with the connector.
- Never clean the indicator with highly intensive solvents or oils. The best way to clean the indicator is to use a slight moist cloth, and then use a dry cloth to wipe again.
- Any kind of liquid or conductive powders etc should not be poured on the indicator. The indicator will be damaged beyond repair, and electrical shock is bound to happen.

OPERATION MANUAL

K9 series Weighing Indicator



Revision History

Version	Month	Year
10.00	December	2009

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A) MAIN SPECIFICATION

1. Analog:

- Input Signal: 0 ~ 15mV/V
- Conversion Speed: 50 times per second
- Internal A/D codes: 560000 counts
- Non-Linearity: 0.005%
- Internal Drift: 0.01%
- Excitation Voltage: +5VDC
- Loadcell: 1x350 ohms

2. Display:

- Bright RED L.E.D. Display of 0.56" Height.
- Display: -199999 to 999999
- Interval: 1/2/5/10/20/50/100/200/500 (selectable)

3. Environment:

- Power Supply: 90VAC ~ 300VAC @ 50Hz (+/- 2%)
- Ambient Temperature: 0°C to +40°C
- Storing Temperature: -10°C to +55°C
- Humidity: ≤85%R.H.
- Warm Up time: 5 Minutes

4. Weight: 2Kg (Excluding Battery)

- 2) Internal Service Calibration Setting (With Division, Decimal & Capacity setting): Press the ZERO Button and switch on the scale. The display will show "PASS" and then "000000". The user should enter the password "1124" using the Up and left arrow keys. Now press the ZERO Button. The display will show "CAL". Press the ZERO button again. The display will show "RNG 01" use the following table to select the appropriate setting of RNG

Range	Maximum Counts	Example
RNG 01 (Single Range)	30000 counts or less	300kg x 10gm
RNG 02 (Dual Range)	15000 counts for each range or less	150kg x 10gm (15000 div) 300kg x 20gm (15000 div)
RNG03 (Triple Range)	10000 counts for each range or less	100kg x 10gm (10000 div) 200kg x 20gm (10000 div) 300Kg x 50gm (6000 div)

- "RNG 01": Press the ZERO Button, the display will show "div X", select the value of the least count between 1,2 or 5 using the UP arrow key. Press the ZERO Button again, the display will show "000000", now select the decimal point position using the left shift key. Press the ZERO Button, the display will briefly show "CAP" and then display the previously entered Capacity. Enter the new Capacity using the UP and LEFT Arrow Keys. Press the ZERO Button, the display will briefly show "noLoad" and then the internal division at no load condition. Make sure for the decimal point to stop blinking, and then press the ZERO Button. The display will show "LOAD" briefly and then again the internal counts. Keep the calibration weight and press the ZERO Button, the display will show "000000". Now enter the value of the calibration weight kept using the UP and LEFT Arrow Keys. Finally press the ZERO Button, the display will show the calibrated weight. Please remember that the value of the DIV, DECIMAL and CAP should be entered remembering the maximum allowed counts are 30000 counts or less otherwise the indicator will not accept the setting and display "ERR"
- "RNG 02": Follow the above procedure, only remember that you have to enter the DIV, DECIMAL and CAP twice instead of once. The maximum number of counts allowed for each capacity range will be 15000 counts or less, and hence the setting should be entered accordingly.

- c) **Counting Function:** The indicator has counting mode which can be used for parts counting. In the weighing mode, keep a weight on the scale. When the decimal point stops blinking, press the Counting Button. The display will show the value according to the previously entered data. Now press the M button, the Display will show "SM0010" which is selection mode for the number of pcs. Press the M button again display will show "SM0020", so that the user can select the appropriate number as per the number of samples kept on the scale in the beginning. After correct selection press the ZERO Button, the display will show the pieces counting. To go back to the weighing mode, press the Counting Button again. You will come back to the weighing mode and the display will show the weight. Press the counting button again and again, to toggle between the counting mode and weighing mode.

E) **SETTINGS:**

Press the M button and then switch on the scale. The indicator has the following user settings in this menu:

1. **DUMMY ZERO:** The user can enable or disable the DUMMY ZERO display with this setting. Select YES or NO depending on whether you want to display the dummy zero or not.
2. **AUTO ZERO:** After dummy zero selection the display will show "A-0 X". Here the user can select the range of the autozero. "A-0 0" means auto zero function disabled and the display will show even the first count from the zero level. "A-0 3" means the auto zero range is 3d, meaning that the indicator will auto zero any reading between 0d and 3d at the zero level, to maintain the correct zero on the scale.

F) **CALBRATION:**

- 1) **External Calibration Setting (Without Division, Decimal and Capacity setting):** Press the ZERO Button and switch on the scale. The display will show "PASS" and then "000000". Press the ZERO Button. The display will show "CAL". Press the ZERO the display will briefly show "no Load" and then the internal division at no load condition. Make sure for the decimal point to stop blinking, and then press the ZERO Button. The display will show "LOAD" briefly and then again the internal counts. Keep the calibration weight and press the ZERO Button, the display will show "000000". Now enter the value of the calibration weight kept using the UP and LEFT Arrow Keys. Finally press the ZERO Button, the display will show the calibrated weight. If the difference between this external calibration and the previous internal calibration is more than 5%, the new calibration will not be stored and the indicator will pick up the values / setting according to the old internal calibration only. If the user feels that the new external calibration is correct and still the indicator is not accepting it, then the correct way to do the calibration will be to do the internal calibration again.

B) **INSTALLATION**

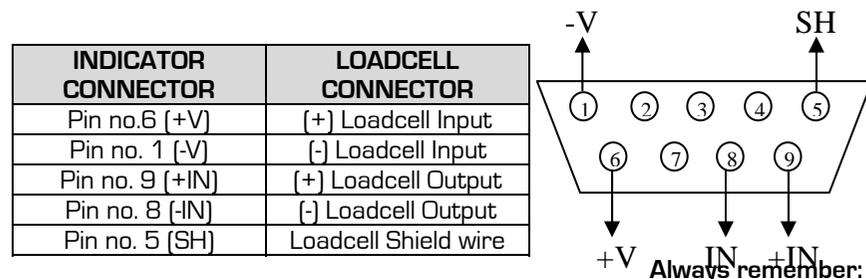


Front View



Back View

1. **Connection of the Loadcell:** The 9 Pin connector at the back of the indicator is for connecting the loadcell to the indicator. Please use the following instruction to connect the loadcell to the indicator correctly.



- Make sure to switch off the indicator while connection the loadcell.
 - Make wure that the loadcell wire is securely soldered to the connector pins correctly as shown above and double check that there is no dry soldering.
 - Make sure to tighten the connector screws after attaching the loadcell connector to the indicator connector to avoid loose connection problems.
2. **ON / OFF Switch:** The on/off switch is provided at the back of the indicator to turn on and turn of the indicator. Under most recommended conditions, make sure to turn off the indicator when not in use for long time, and it is most recommended that the power cable of the indicator should always be connected to the mains power socket
 3. **Second Display Connector:** The 15 pin connector below the on/off switch is provided for the second display connections. The normal indicator has only a

dummy 15 pin connector and the connections inside the indicator for the second display are not provided. If you need indicator with second display connection to the connector by default, then please order for "IOE-K9-2D"

4. **Indicator Neck:** The neck for mounting the indicator on the platform pole is provided along with the indicator. 4pcs of screws are also provided with which the user may tighten the neck to the base of the indicator. Make sure to tighten these screws to the indicator base tightly and securely in order to avoid any loose joints.

C) OPERATION

- a) **Switch On:** The scale can be switched on using the on/off switch at the back of the indicator. The display will show Start up message and Version no. of the software, and then display "0.00"
- b) **Buttons:**
 - o **ZERO:** This button is used to zero an unwanted reading on the display. This button is also used for going in to the calibration mode.
 - o **HOLD:** This button is used for holding the weight on the display.
 - o **M / UP Arrow:** This button is used for Setting the LO and High Limit in the scale. The button is also used as the up arrow key in the setting menu.
 - o **Counting / Left Shift Key:** This button is used for counting function. This button is also used as the left shift key in the setting menu.
- c) **Indications:** There are three visual indications in the scale which are as follows:
 - o **Power LED:** When you connect the power cable of the indicator to the power socket, the GREEN LED on the top right side of the display will glow. When the LED will glow, you can be sure the indicator is being powered from the main supply, and that the battery is being charged.
 - o **Stable weight indication:** In the weighing or the counting mode, when you keep the weight you will notice that the decimal point is blinking. The blinking decimal point means that the weight is not stable. Once the weight is stable, the decimal point stops blinking and the user can be sure that the weight being shown is the correct weight.
 - o **Hold function:** In the weighing mode if you press the hold button after keeping the weight, the displayed weight will start blinking this means that the hold function is active. Once the display stops blinking the hold mode is turned off.

D) Functions:

- a) **HOLD Function:** The indicator has a hold function which can be used to hold the weight display. In weighing mode, keep a weight and wait for the decimal point to stop blinking. Once the decimal point is stable, now user can press the HOLD button. The display will start blinking, and the weight will be hold on the display without any movement if you add some weight or remove some weight. Also if you remove the total weight, the previous weight will still be displayed at which the hold button was pressed. Now to come out of the hold mode, simply press the hold button again, or keep a new weight. The indicator will automatically understand a new weight has been kept, and it will exit the HOL mode, and display the new weight correctly.
- b) **SET POINT Function:** The function is mainly used for packing or check weighing function. The user can pre define the level at which he needs the alarm to sound. When the display is showing "0.00", press the M button, the display will show "SET LO", now press the zero button, the display will show "000000" or the previous entered value. Enter a value using the Up arrow and the left shift arrow and then press the Zero Button. Now the display will show "SET HI" and the user can similarly enter the HI value. The following logic is followed in this mode:
 - o **SET LO value is entered only:** If the user only enters the SET LO value and keep the SET HI value as "0.00", the indicator will sound the beep sound below the SET LO value.
 - o **SET HI value is entered only:** If the user only enters the SET HI value and keep the SET LO value as "0.00", the indicator will sound the beep sound above the SET HI value.
 - o **SET LO & SET HI both are entered:** If the user enter both SET LO and SET HI value, the beep will not sound below between the SET Lo and SET HI value range, and the beep will sound below the LO value and above the HI value.

Please note the following points:

- o *The beep sound will sound only when the stable light stops blinking, that is the weight is stable.*
- o *The BUZZER is not provided as standard, and it needs to be installed by the dealer / reseller. Without the buzzer installed, the beep sound cannot be heard.*