SEK SERIES
ELECTRONIC PIECE COUNTING / CHECK WEIGHING SCALE
OPERATION MANUAL

READ THIS MANUAL BEFORE OPERATING THE SCALE

*Specifications and functions subject to change without prior notice

X0SEK030000 Revision: April 2008

CONTENT

Caution

Before usage:

a. Check and make sure that the input voltage of power adaptor matches with the output voltage of the outlet. If it does not, do not plug in the adaptor and contact your dealer immediately.

b. Before first time use, plug the main adaptor into the wall outlet and charge the scale for at least 8 hours.

c. Retain the packing materials for future transportation purposes.

d. Do not attempt to open this unit or conduct any trouble shootings other than those listed on **TROUBLE SHOOTING**.

e. Clean the scale with a soft and damp cloth. If necessary, apply a mild detergent.

f. Do not use any harsh, abrasive material, acetone, volatile solvent, thinner or alcohol for cleaning.

g. Do not use pressurized water nozzle for cleaning.

h. The scale must be placed horizontally during transportation or long time storage.

i. Remove platter from scale before transportation or long time storage.

j. Store scale in a dry and clean place.

SPECIFICATIONS

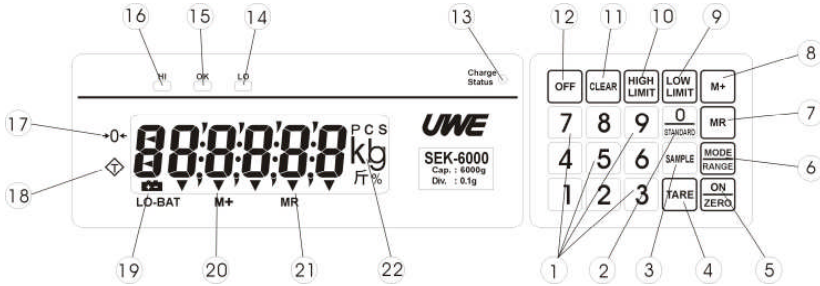
Model No.	Capacity (Max)	Division (e)
SEK-3000	3000g / 6.6lb	0.05g / 0.01oz
SEK-6000	6000g / 13.2lb	0.1g / 0.01oz
SEK-12K	12kg / 26.45lb	0.2g / 0.01oz
SEK-30K	30kg / 66lb	0.5g / 0.02oz
SEK-60K	60kg / 132lb	1g / 0.1oz
Max. Tare Range	Full Tare Range(SUBTRACTIVE)	
Max. Zero Range	2% of Rated Capacity	
Weight Units	Metric(g), Avoirdupois(lb or oz), Pieces (pcs)	
Operation Environment	0~40℃ (32~104℉) Non-condensed. R.H.□ 85%	
Power Source	6V 4Ah Rechargeable Battery or External Power Adaptor	

Specifications subject to change without notice

FEATURES

- Manual Zero Fuction (± 2% F.S.)
- Tare Function (Full Tare Available)
- Selectable Resolution and Weighing Units (Resolution: 1/60,000, 1/30,000 or 1/15,000) (Weighing Units: g, lb, lb-oz, tael, or pcs)
- Low Battery Warning Indicator ( )
- Backlight (Optional)
- Rear Display (Optional)
- RS-232 Interface (Optional)
- Relay Output (Optional)

KEYBOARD LAYOUT & FUNCTIONS



1- NUMERIC KEYPAD

Press these keys to input desired numbers for settings (for example, setting the HI-OK-LO).

2- 0 / STANDARD

When in regular use, press this key to input "0". When inputting HI-OK-LO value or a load is placed on the scale, press and hold this key to set the weight displayed as the OK value. The LED for OK will light up when the value is stored in the scale.

3- SAMPLE

When the counting (pcs) function is in use, press this key for the sampling function. (Use the numeric keypad to input the number of items on the platter, and then press the SAMPLE key. The scale will store the sample weight of the load and the display will show the number of items on the platter.

4- TARE

Press this key to tare off the weight of the load on the platter (full tare available).

5- ON/ZERO

Press this key to turn on the scale or to manually set the display to zero (can be used up to 2% of full capacity). Press and hold this key to turn the backlight on / off.

6- MODE/RANGE

Press this key to change the weighing units/resolution and the range of the HI-OK-LO. (When selecting weighing units or resolution, press and hold this key until the desired weighing unit and resolution is displayed).

Example for a 6kg SEK scale:

By pressing and holding the MODE key, it will shift between the following weighing units and division:

6000.1 g → 6000.2 g → 6000.5 g → 0.0000 lb → 0′ 0.00 lb (lb-oz) → 0.0.0.0 Tael → PCS → 6000.1 g → …

When inputting HI-OK-LO value or a load is placed on the scale, press and hold MODE/RANGE to set the displayed value as the range for HI and LO values from the OK value. The LED for HI and LO will light when the value is stored in the scale.

Remark: The weighing units can be turned on/off in the Function 3. If the weighting unit is turned off, it will not be displayed by pressing the MODE key.

7- MR

Press this key to recall the accumulated total weight or total pieces.

8- M+

Press this key to accumulate the weight or pieces displayed into the memory.

9- LOW LIMIT

When inputting the number using the numeric keypad or placing a load on the scale, press this key to set the LO limit for HI-OK-LO.(the LED for LO will light when the value is stored in the scale)

KEYBOARD LAYOUT & FUNCTIONS

10- HIGH LIMIT

When inputting the number using the numeric keypad or placing a load on the scale, press this key to set the HI limit for HI-OK-LO (the LED for HI will light when the value is stored in the scale).

11- CLEAR

Press this key to clear the previous settings for HI-OK-LO (high limit, low limit, standard, and range settings).

12- OFF

Press this key to turn the scale off.

*Backlight can be turned on/off by pressing and holding the ON/ZERO key. At zero weight status, the backlight will automatically turn off after 20 seconds and will turn back on when weight is placed on the scale.

** Auto Zero Function when turned on works within 20% of the rated capacity. To maintain normal operation, please remove all weight from the platter before turning on the scale.

DISPLAY INDICATORS

13- CHARGE STATUS LIGHT

This LED light displays the charging status. When charging using the adaptor, the LED will turn red. The LED will turn green once the rechargeable battery is fully charged.

14- LED for LO

This LED lights up when the weight or pcs on the scale is lower than the LO value set for HI-OK-LO.

15- LED for OK

This LED lights up when the weight or pcs on the scale is within the range of the OK value set for HI-OK-LO.

16- LED for HI

This LED lights up when the weight or pcs on the scale is higher than the HI value set for HI-OK-LO.

17- ZERO INDICATOR

An arrow on this sign indicates a zero weight status.

18- TARE INDICATOR

An arrow on this sign indicates TARE function is in operation and weight displayed is the NET weight.

DISPLAY INDICATORS

19- LOW-BATTERY INDICATOR

***This sign appears when the battery is low.

20- M+ INDICATOR

An arrow on this sign indicates the accumulation function is in use.

21- MR INDICATOR

An arrow on this sign indicates that the accumulation data is currently shown on the display.

22- WEIGHING UNITS INDICATOR

This indicator shows the current weighing unit employed.

***Charge the scale immediately when the LOW-BATTERY sign appears. Failure to do so can shorten the life of the rechargeable battery.

INTERNAL FUNCTIONS

To access the internal functions:

<1> Press and hold TARE, then press <ON/ZERO>

<2> Display will show “F0”

<3> Press TARE until the desired Function is displayed

<4> Press MODE/RANGE to enter function

<5> Press MODE/RANGE to make selection

<6> Press TARE to confirm selection

<7> Press ON/ZERO key to return to weighing mode

F0	Set the Auto Zero Tracking range (Zero_X, can select how many divisions of e to Auto Zero) Within the setting range, the weight is forced to be zero.
F1	Span Value display
F2	Software version display and full display test
F3	Displays default weighing units used and disable/enable different weighing units shown when pressing MODE in normal weighing mode
F4	Enable/disable Auto Power Off
F5	RS-232 Interface Setting (Baud Rate, Parity Setting)
F6	Enable/disable Digital Filter (FiLt_0 ~ FiLt_5)
F7	RS-232 transmission mode (P-Out, Conti, Auto)
F8	Tare mode (n_tArE, S_tArE)

F9 Sound Alarm for HI-OK-LO (nobEEP, gobEEP, HLbEEP, HbEEP, LbEEP).

F10 Relay Output Mode Selection (Act L – open / close, Act H open / close)

(F3) Weighing Unit Selection

a) Use the procedure described above to reach Function F3

b) Press MODE/RANGE to enter Function F3. The display will show "on 0.X g" or "OFF 0.X g" (X value is the division)

c) Press MODE/RANGE to enable/disable the selection of this weighing unit by pressing MODE during normal operation.

d) Press SAMPLE to shift between the different weighing units available.

e) Repeat c) to d) for all the other weighing units.

f) In order to set the default weighing unit shown when the scale is first turned on, press SAMPLE until the desired weighing unit is shown then press ON/ZERO. The display will show "InIt 0.X g" → "F4". Turn off and then turn on the scale to complete this process.

(F4) Auto Power off Function

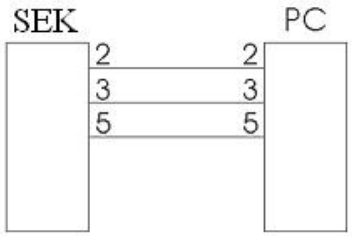
a) Use the procedure described above to reach Function F4

b) Press MODE/RANGE. The display will show "XX_oFF"

c) Press MODE/RANGE to select the Auto Power off time.
0_oFF → no auto power off
30 oFF → auto power off if not used in 30 minutes

d) Press TARE to confirm, then press ON/ZERO to return to normal weighing mode.

(F5) Using RS-232 to connect to PC



a) Enter function F5.

b) Select Baud Rate by pressing SAMPLE.

br48 → br96 → br192

br 48 → 4800 bps
br 86 → 9600 bps
br 192 → 19200 bps

c) After Baud rate is selected, press MODE/RANGE, and the display will show "P=XXX". Select Parity Setting by pressing SAMPLE.

P=n81 → no Parity bit, data = 8 bit, stop bit = 1 bit

P=E71 → Even Parity bit, data = 7 bit, stop bit = 1 bit

d) Press TARE to confirm.

e) Enter function F7 to select RS-232 transmission mode

f) Start RS-232 software on the PC.

g) When placing an item on the platter, after weight becomes stable, the computer display will show a line of RS-232 data.

	S	W	W	W	.	W	W		U	U	CR	LF

Blank Blank

eg.	-	3	0	0	0	.	1			g	CR	LF
			6	1	3	.	5		1	b	CR	LF

(F6) Enable/Disable Digital Filter

Digital Filter can be enabled when weighing in environment with external interferences, such as wind, vibration or other unknown interference. The scale will have a more stable reading; however, the speed response will be decreased.

a) Use the procedure described above to reach Function F6.

b) Press MODE/RANGE and display will show "FiLt_X" (X being the number selected from previously)

c) Press MODE/RANGE to select the Digital Filter number required.

FiLt_0 → Disable Digital Filter

FiLt_1~5 → Enable Digital Filter.

(Higher number represents a stronger filter with more weighing stability but with slower weighing response speed)

d) Press TARE to confirm, then press ON/ZERO to return to normal weighing mode.

(F7) RS-232 Transmission Mode

a) Use the procedure described above to reach Function F7.

b) Press MODE/RANGE, and the display will show "XXXX" (XXXX being the setting from the previous selection)

c) Select RS-232 Transmission mode by pressing MODE.

Auto → Send data once after weight stabilization

P-Out → Printer Output (**Reserved)

Conti → Send data continuously after weight stabilization

d) Press TARE to confirm, then press ON/ZERO to return to normal operation.

(F8) Tare Mode Selection

a) Use the procedure described above to reach Function F8.

b) Press MODE/RANGE to enter, and display will show "X-tArE" (X being the previous selected mode)

n_tArE → Tare function can be used when weight is not stable

S_tArE → Tare function can be used only when weight is stable

c) Press MODE/RANGE to select the desired setting.

d) Press TARE to confirm, then press ON/ZERO to return to normal weighing mode.

(F9) Sound Alarm for HI-OK-LO

a) Use the procedure described above to reach Function F9.

b) Press MODE/RANGE and the display will show XXbEEP (XX being the setting from the last selection)

nobEEP → disable sound alarm

gobEEP → sound alarm when OK value is reached

HLbEEP → sound alarm when HI/LO value is reached

HbEEP → sound alarm when HI value is reached

LbEEP → sound alarm when LO value is reached

c) Press MODE/RANGE to select the desired setting.

d) Press TARE to confirm, then press ON/ZERO to return to normal weighing mode.

(F10) Relay Output Mode Selection

a) Use the procedure described above to reach Function F10.

b) Press MODE/RANGE to enter function.

c) Use MODE/RANGE to choose either Act L or Act H.

d) Press TARE to confirm, then press ON/ZERO to return to normal weighing mode.

	Normal	Action
Act L	Relay output status is open	Relay output status is closed
Act H	Relay output status is closed	Relay output status is open

TROUBLESHOOTING

Syndrome	Possible Cause	Solution
Scale cannot be turned on	1. Adaptor not plugged correctly. 2. Rechargeable battery has low battery. 3. Adaptor voltage incompatible with electrical outlet.	1. Re-plug the adaptor to the scale. 2. Recharge the battery. 3. Replace the adaptor with the correct voltage.
Scale turns off automatically after a period of time.	Auto Power Off function is in operation.	Enter function F4 and change the setting.
Scale display shows symbol.	Low battery warning.	Recharge the battery.
Weight is not accurate.	1. Is there any object stuck on the scale? 2. Is there any outside interference such as wind or RF interference?	1. Remove the object and try again. 2. Go to an environment free of interference and try again.

CALIBRATION

1- Press ON/ZERO to turn on the scale. Before the countdown finish from 9 to 0 press and hold MODE/RANGE key.

2- The display will show “CAL.?_1”

3- Press MODE/RANGE.

4- The display will show “YES”. The platter should be free from any loads to calibrate the zero point.

5- After zero point is calibrated, the display will show “LOAD” “XXXX.X” “or” “XXXX.X”

6- Place the weight marker with the corresponding weight shown on the display. After calibration is finished, the display will show “CAL.?_2”

7- Press ON/ZERO to exit calibration and return to normal weighing mode. If there is a need to calibrate the second point, repeat instructions from number 3 to 6.

8- After the second point is calibrated, the scale will automatically return to weighing mode.