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Instruction Manual

Price computing scales

KERN RFS

Version 1.0
01/2011
GB



RFS-BA-e-1110



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Version 1.0 01/2011

Instruction Manual

Price computing scales

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1 Technical data

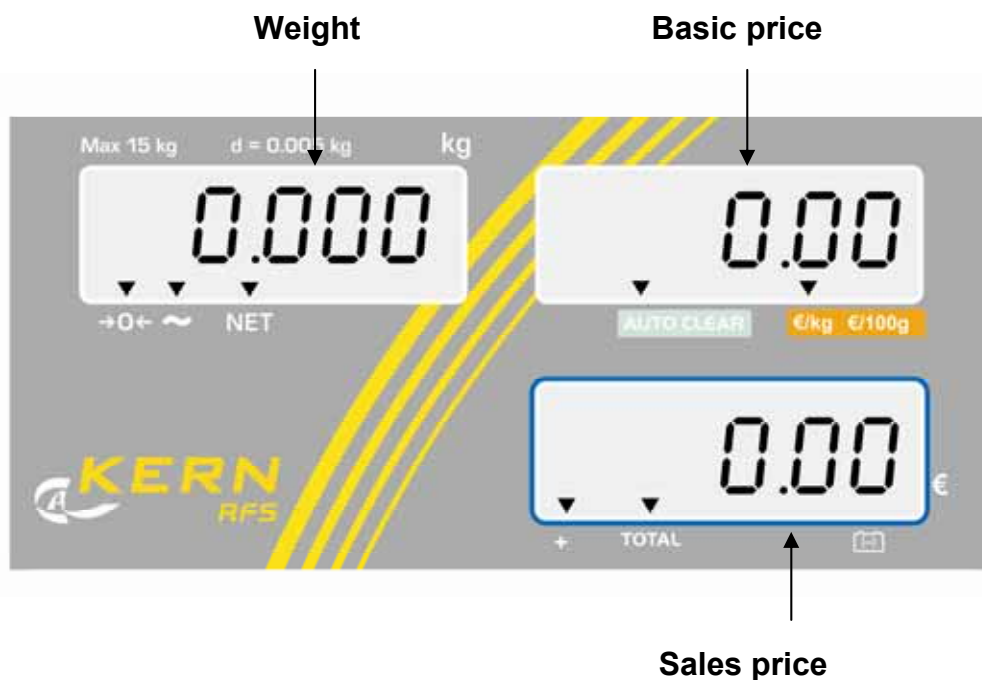
KERN	RFS 6K2HM	RFS 15K5HM	RFS 30K10HM
Weighing range (max)	6 kg	15 kg	30 kg
Readability (d)	2 g	5 g	10 g
Minimum load	40 g	100 g	200 g
Verification value	2 g	5 g	10 g
Verification class	III	III	III
Reproducibility	2 g	5 g	10 g
Linearity	± 4 g	± 10 g	± 20 g
Stabilization time	3 s	3 s	3 s
Recommended adjusting weight (not supplied)	6 kg (M2)	15 kg (M2)	30 kg (M1)
Warming up time (operating temperature)	10 min		
Net weight (kg)	7 kg		
Dimensions of the housing (B x D x H)	370 x 310 x 125		
Weighing plate, stainless steel	370 x 240 mm		
Tripod height	47 cm		
Weighing unit	€/kg; €/100 g		
Permissible ambient condition	-10° C to 40° C		
Allowable air humidity	0 % - 85 % (non-condensing)		
Electric Supply	Line adapter 230 V AC, 50/60 Hz Weighing balance 9 V DC, 800mA		
Rechargeable battery	6 V, 10 Ah		
	Operating period without printer – background lighting on 30 h		
	Operating period without printer – background lighting off 80 h		
	Loading time approx. 12 hrs.		
Data interface	RS 232C		

2 Appliance overview



1. PLU direct price keys
2. Bubble level
3. Post-mounted display
4. Battery compartment underneath weighing pan
5. Printer „Sales receipt“
6. Numeric keys
7. RS 232 interface
8. Levelling screw
9. ON/OFF switch
10. Mains adapter connection

2.1 Overview of display



Display weight:

Here, the weight of your goods is displayed.

The arrows above the symbols show:

→0←	Zeroing display
~	Stability display
NET	Net weight

Display basic price:

Enter your basic price here either in €/kg or €/100 g using the keyboard, switching between €/kg or €/100 g possible.


The arrows above the symbols show:

AUTO CLEAR	Set basic price is deleted automatically when balance is unloaded
€/kg	Basic price in €/kg
€/100 g	Basic price in €/100 g

Display sale price:

Here the sales price is displayed in Euro [€].

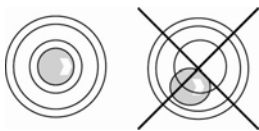
The arrows above the symbols show:

+	Data in summation memory
TOTAL	Total
	Battery very low

2.2 Keyboard overview

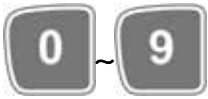













1. Bubble level



Level balance with foot screws until the air bubble of the water balance is in the prescribed circle.

2. Storage battery status display

Selection	Function
	<ul style="list-style-type: none"> Numeric keys, input basic price/PLU
	<ul style="list-style-type: none"> Display „End total“
	<ul style="list-style-type: none"> Delete key
	<ul style="list-style-type: none"> PLU direct price keys for 28 frequently reoccurring item prices, see chpt. 8.2.1
	<ul style="list-style-type: none"> Saving and retrieving item prices (indirect PLU), see chpt. 8.2.2
	<ul style="list-style-type: none"> Addition in total memory
	<ul style="list-style-type: none"> Taring key Save settings
	<ul style="list-style-type: none"> Zeroing key Back to weighing mode
	<ul style="list-style-type: none"> Set basic price is deleted automatically when balance is unloaded
	<ul style="list-style-type: none"> Switch-over key €/kg or €/100 g
	<ul style="list-style-type: none"> Issue to external device
	<ul style="list-style-type: none"> Line advance “sales receipt”

3 Basic Information (General)

3.1 Proper use

The balance acquired by you serves to determine weight and price. It is intended to be used as a “non-automatic“ balance, i.e. the material to be weighed is manually and carefully placed in the centre of the weighing plate. As soon as the goods to be weighed are placed on the balance and the basic price has been set the price is calculated automatically and displayed.

3.2 Improper Use

Do not use balance for dynamic weighings. In the event that small quantities are removed or added to the material to be weighed, incorrect weighing results can be displayed due to the “stability compensation“ in the balance. (Example: Slowly draining fluids from a container on the balance.)

Do not leave permanent load on the weighing plate. This may damage the measuring system.

Impacts and overloading exceeding the stated maximum load (max) of the balance, minus a possibly existing tare load, must be strictly avoided. Balance may be damaged by this. Never operate balance in explosive environment. The serial version is not explosion protected.

The structure of the balance may not be modified. This may lead to incorrect weighing results, safety-related faults and destruction of the balance.

The balance may only be used according to the described conditions. Other areas of use must be released by KERN in writing.

3.3 Warranty

Warranty claims shall be voided in case

- Our conditions in the operation manual are ignored
- The appliance is used outside the described uses
- The appliance is modified or opened
- Mechanical damage or damage by media, liquids, natural wear and tear
- The appliance is improperly set up or incorrectly electrically connected
- The measuring system is overloaded

3.4 Monitoring of Test Resources

In the framework of quality assurance the measuring-related properties of the balance and, if applicable, the testing weight, must be checked regularly. The responsible user must define a suitable interval as well as type and scope of this test. Information is available on KERN's home page (www.kern-sohn.com) with regard to the monitoring of balance test substances and the test weights required for this. In KERN's accredited DKD calibration laboratory test weights and balances may be calibrated (return to the national standard) fast and at moderate cost.

4 Basic Safety Precautions

4.1 Pay attention to the instructions in the Operation Manual

Carefully read this operation manual before setup and commissioning, even if you are already familiar with KERN balances.

4.2 Personnel training

The appliance may only be operated and maintained by trained personnel.

5 Transportation & Storage

5.1 Testing upon acceptance

When receiving the appliance, please check packaging immediately, and the appliance itself when unpacking for possible visible damage.

5.2 Packaging

Keep all parts of the original packaging in case you need to return the appliance. Only use original packaging for returning. Before sending, disconnect all connected cables and loose/movable parts. Attach possibly existing transport safeguards. Secure all parts, e.g. weighing plate, power unit etc., to prevent slipping and damage.

6 Unpacking, Setup and Commissioning

6.1 Installation Site, Location of Use

The balances are designed in a way that reliable weighing results are achieved in common conditions of use. You will work accurately and fast, if you select the right location for your balance.

On the installation site observe the following:

- Place the balance on a firm, level surface;
- Avoid extreme heat as well as temperature fluctuation caused by installing next to a radiator or in the direct sunlight;
- Protect the balance against direct draughts due to open windows and doors;
- Avoid jarring during weighing;
- Protect the balance against high humidity, vapours and dust;
- Do not expose the device to extreme dampness for longer periods of time. Non-permitted condensation (condensation of air humidity on the appliance) may occur if a cold appliance is taken to a considerably warmer environment. In this case, acclimatize the disconnected appliance for ca. 2 hours at room temperature.
- Avoid static charge of goods to be weighed or weighing container.

If electro-magnetic fields or static charge occur, or if the power supply is unstable major deviations on the display (incorrect weighing results) are possible. In that case, the location must be changed.

6.2 Unpacking / Scope of delivery

Carefully remove the balance from the packaging, remove plastic cover and setup balance at the intended workstation.

Serial accessories:

- Balance, see chpt. 2
- Mains power supply
- Rechargeable battery
- Instruction Manual

6.3 Assembly post-mounted display



Plug tripod [1] of the post-mounted display into the provided support [2] of the balance. Fix by using the two supplied screws [3] and [4]. Ensure that the interior cable does not get damaged or trapped.


6.4 Mains connection

Power is supplied via the external mains adapter. The stated voltage value must be the same as the local voltage. Only use KERN original mains adapter. Using other makes requires consent by KERN.

6.5 Battery power supply

The rechargeable battery is charged via the delivered power supply.

Before the first use, the battery should be charged by connecting it to the mains power supply for at least 15 hours.

An arrow [▼] appearing on the weight display above the battery icon  indicates that the capacity of the rechargeable battery is low. The balance will be ready to operate for about another 10 hours, then it will switch off automatically.

“**BAT LO**“ appearing on the display indicates that the capacity of the battery is exhausted. The balance will be ready to operate for about another 50 minutes, then it will switch off automatically. To charge the chargeable battery, connect the mains cable.

The LED display informs you during loading about the loading status of the rechargeable battery.

6.6 Initial Commissioning

In order to obtain exact results with the electronic balances, your balance must have reached the operating temperature (see warming up time chap. 1). During this warming up time the balance must be connected to the power supply (mains, accumulator or battery).

The accuracy of the balance depends on the local acceleration of gravity. Strictly observe hints in chapter Adjustment.

6.7 Adjustment

As the acceleration value due to gravity is not the same at every location on earth, each balance must be coordinated - in compliance with the underlying physical weighing principle - to the existing acceleration due to gravity at its place of location (only if the balance has not already been adjusted to the location in the factory). This adjustment process must be carried out for the first commissioning, after each change of location as well as in case of fluctuating environment temperature. To receive accurate measuring values it is also recommended to adjust the balance periodically in weighing operation.


i The adjustment is locked for verified balances. Carrying out adjustment requires that the seal is destroyed and the adjusting switch is confirmed in step 3 when turning on the scale. For position of adjusting switch, see chpt. 6.8.1.

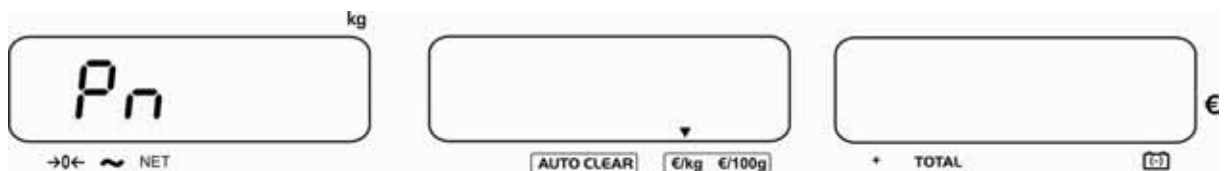
Attention:


After destruction of the seal the balance must be re-verified by an authorised agency and a new verification wire/seal mark fitted before it can be reused for applications subject to verification.

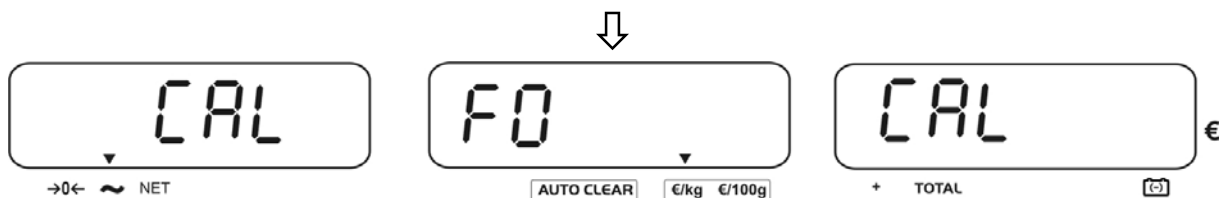
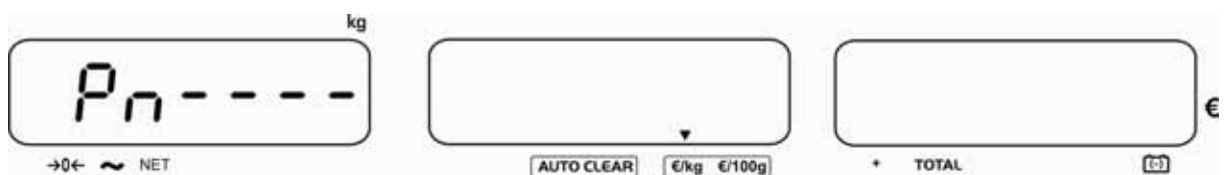
Procedure when adjusting:


Observe stable environmental conditions. A warming up time (see chapter 1) is required for stabilization. Ensure that there are no objects on the weighing plate.

1. Switch-on balance and during the selftest press .



2. Use the numeric keys to enter „0000“ for a password and confirm by .



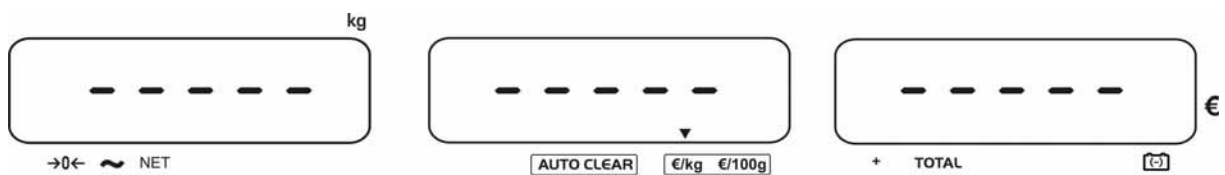
3. Adjustment function F0 CAL is shown. Press the adjusting switch and confirm by pressing .



4. Ensure that there are no objects on the weighing plate. Wait for stability display, then press **TARE**. The required adjustment weight is shown.



5. Place the adjustment weight carefully in the centre of the weighing pan, press **TARE** and the adjusting process will be started.



6. The adjustment process has been successfully completed. Take away adjustment weight.

7. Press **→0←** and the scales will return to weighing mode.



⇒ In case of an adjustment error or incorrect adjusting weight the display will show an error message (*SPAn / FAi L*), repeat adjustment process.

6.8 Verification

General hints:

According to EU directive 90/384/EEC balances must be officially verified if they are used as follows (legally controlled area):

- a) For commercial transactions if the price of goods is determined by weighing.
- b) For the production of medicines in pharmacies as well as for analyses in the medical and pharmaceutical laboratory.
- c) For official purposes.
- d) For manufacturing final packages.

In cases of doubt, please contact your local trade in standard.

After verification the balance is sealed at the indicated positions.

Verification of the balance is invalid without the "seal".

Verification notes

An EU type approval exists for balances described in their technical data as verifiable. If a balance is used where obligation to verify exists as described above, it must be verified and re-verified in regular intervals.

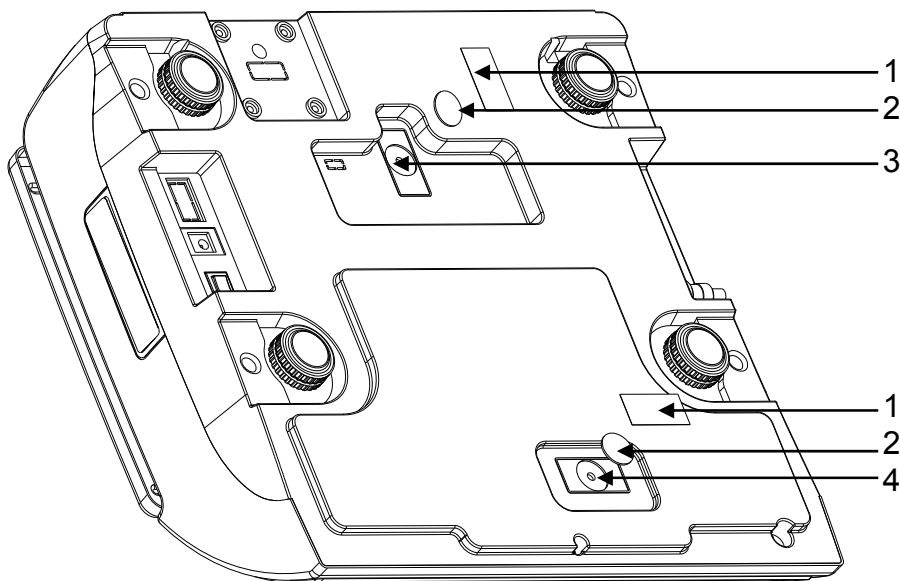
Re-verification of a balance is carried out according to the respective national regulations. The validity for verification of balances in Germany is e.g. 2 years.

The legal regulation of the country where the balance is used must be observed!

Balances with obligation to verify must be taken out of operation if:

- **The weighing result of the balance is outside the error limit.** Therefore, in regular intervals load balance with known test weight (ca. 1/3 of the max. load) and compare with displayed value.
- The **reverification deadline** has been exceeded.

6.8.1 Position of seals and adjusting switch



1. Seal of approval
2. Cover
3. Housing screw
4. Adjustment switch

6.9 Checking the balance verification settings

For the adjustment, the balance must be switched over to service mode.

i In the service mode the parameters of the balance can be modified. The service parameters may not be modified, as this could damage the balance settings.

In calibrated scales the service mode is locked individually for each switch. To disable the access lock, destroy the seal and confirm the switch (See chpt. 6.9.1 step 3). For position of switch see chpt. 6.8.1.


Attention:

After destruction of the seal the balance must be re-verified by an authorised agency and a new verification wire/seal mark fitted before it can be reused for applications subject to verification.


6.9.1 Service mode

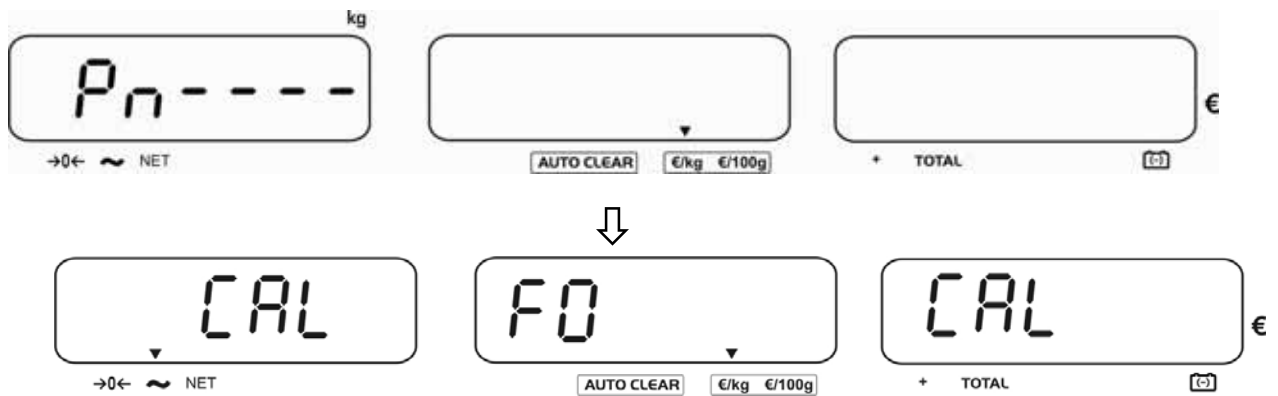
This overview of the service parameters is merely for checking the parameters set by the appropriate Bureau of Standards. No changes may be made.

Access to menu:

1. Switch-on balance and during the selftest press .




2. Use the numeric keys to enter „0000“ for a password and confirm by .



3. The first function „F0 CAL“ is displayed. Press adjusting switch.


Select function:

- ⇒ You can select individual functions containing the current settings one after the other by using  or a numeric key (i.e. 0 for F0 or 2 for F2).

Change / save settings:

- ⇒ Confirm selected function by pressing . Select desired setting by pressing and confirm by pressing  or cancel by pressing .

Exit menu:

- ⇒ Using  the balance returns into the weighing mode.

Overview for service parameter:

Factory settings are marked by [*].

Function			Settings			Description
CAL	F0	CAL				Adjustment function, see chpt. 6.7
CAL	F1	rES				Resolution
			rES	1	3000*	Always use this setting
			rES	1	6000	
			rES	dual	rAnge	
CAL	F2	P Unit				Unit
			Unit	100G	oFF	
			Unit	100G	on*	Always use this setting
CAL	F3	CAP				Weighing range (max)
			CAPA	6		Factory setting RFS 6K2HM
			CAPA	15		Factory setting RFS 15K5HM
			CAPA	30		Factory setting RFS 30K10HM
			CAPA	45		
CAL	F4	dESC				Position decimal point "weight display"
				0.000	Point	Factory setting RFS 6K2HM / RFS 15K5HM
				0.00	Point	Factory setting RFS 30K10HM
				0.0	Point	
				0	Point	
CAL	F5	PdESC				Position decimal point "price displays"
			Point	FiXEd*		
				FLoAt		
CAL	F6	P div				Interval size currency
			Min	Coin	1*	
			Min	Coin	2	
			Min	Coin	5	
			Min	Coin	10	

CAL	F7	rEtAre				
			rE	tArE	on	Follow up tare ON/OFF
			rE	tArE	off*	
CAL	F8	CoUntS				Display internal resolution
			XXX	A-d	CoUntS	
CAL	F9	Coin				Currency
			Set	CUrr	1	€
			Set	CUrr	2	£
			Set	CUrr	3	Kč
			Set	CUrr	4	PLN
CAL	F10	FormaAt				Printout configuration
			CHAr	LEntH	1	Printout examples, see chpt. 10.1
			CHAr	LEntH	2	
			Print	Format	1	
			Print	Format	2	
			Print	Format	3	No printer function
CAL	F11	PLU				Not documented
			Print	PLU		
CAL	F12	Pin	P1			Not documented
CAL	F135	rS232				RS232 Interface ON/OFF
			rS232	on*		
			rS232	oFF		
CAL	F14	Grv				Not documented

* = default setting

7 Basic Operation

7.1 Switching on/off



- ⇒ To turn on/off confirm forward at the underneath on the right of the scale and keep pressed for a little while. The balance will carry out a self-test. The balance is ready for weighing when the weight display appears.






- ⇒ To switch-off push backward the switch-on/switch-out on the right lower side of the balance.

7.2 Zeroing

Resetting to zero corrects the influence of light soiling on the weighing plate.

- ⇒ Unload the balance
- ⇒ Press , the balance starts resetting to zero. The  symbol over **→0←** appears.

7.3 Taring

- ⇒ Deposit weighing vessel. After successful stop check press the  button. The zero display and the  symbol over **NET** will appear. The weight of the container is now internally saved.
- ⇒ Weigh the material, the net weight will be indicated.
- ⇒ The weight of the weighing container will be displayed as a minus number after removing the weighing container.
- ⇒ To delete the tare value, remove load from weighing plate and press .

7.4 Overload warning

Overloading exceeding the stated maximum load (max) of the balance, minus a possibly existing tare load, must be strictly avoided. This could cause damage to the balance.

Exceeding maximum load is indicated by the display of „-OL-“ and an audio sound. Unload balance or reduce preload.

8 Weighing with price determination


As soon as the goods to be weighed are placed on the balance and the basic price has been set the price is calculated automatically and displayed in the provided field.

8.1 Basic price entry via keyboard


⇒ When using the weighing container, tare by using , see chpt. 7.3.



⇒ Position item to be weighed

⇒ Enter basic price via numeric keys  ~  and the sales price will be automatically computed and displayed.





-  ⇒ The basic price set can be deleted by pressing C.
- ⇒ To change the display from **€ / kg** to **€ / 100 g** to, press the  key.


8.2 Memory for basic price (PLU = Price look up)

The scale has available 28 direct price keys for frequently reoccurring item prices and a memory for further 99 item prices.

8.2.1 Direct PLU 1~PLU 28



PLU is set and retrieved via the direct price keys  ~ .

Save:

⇒ When using the weighing container, tare by using , see chpt. 7.3. The tare value will be saved next to the unit price below the selected PLU as described below.



⇒ Enter the basic price such as 1.50 €/kg via the numeric keys  ~ .




⇒ Press and hold the desired direct price key  ~  for approx. 3 seconds until the currently stored item number is shown flashing.



If „0000“ appears on the display this is a sign that no item number has been stored. It is absolutely necessary that an item number is allocated.

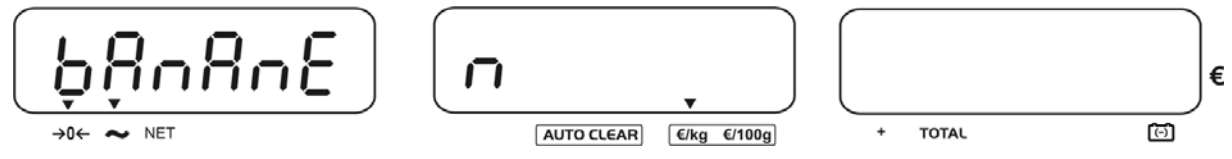
Enter or change the desired item number via the numeric keys  ~ .




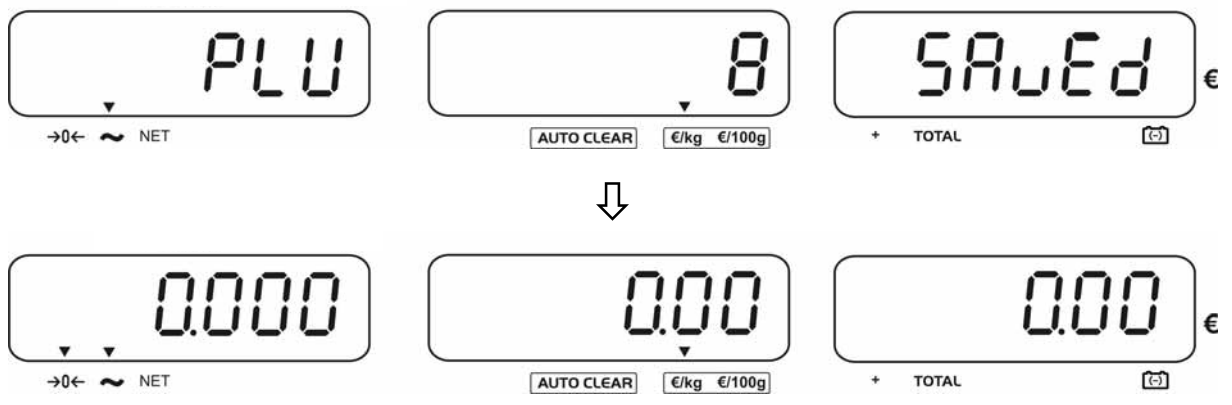
⇒ Press  and the window for entering the product name; the current digit is flashing.



⇒ Enter product name (max. 12 characters), such as “bananas”, by  ~ .





⇒ Press  and the basic price and product name will be saved under the selected direct price key (such as PLU 8).



Retrieve / show sales price:

⇒ Place goods

⇒ Press desired PLU  ~  and the saved basic price as well as the sales prices computed from it will be shown.



⇒ Press and the sales receipt will be issued.


Printout example (also see chap. 10.1):

BANANAS		Saved product name	
2010/08/17	10:37 No. 00	Date	Time
Gross	Unit price	Poured quantity	Basic price
0.975 kg	1.99 €/kg		
Tare	Total	Tare weight	Sales price
0.000 kg	1.94 €		

8.2.2 Indirect PLU 1~PLU 99“


The setting and retrieving of PLU is achieved via the numeric keys  ~  ..

Save:



⇒ When using the weighing container, tare by using , see chpt. 7.3. The tare value will be saved next to the unit price below the selected PLU as described below.

⇒ Enter the basic price such as 1.50 €/kg via the numeric keys  ~ .





⇒ Press and hold  for approx. 3 seconds until the window for entering the memory location number (PLU) appears.



⇒ Enter PLU, such as 30 via the numeric keys  ~  and the currently saved item number will start flashing.

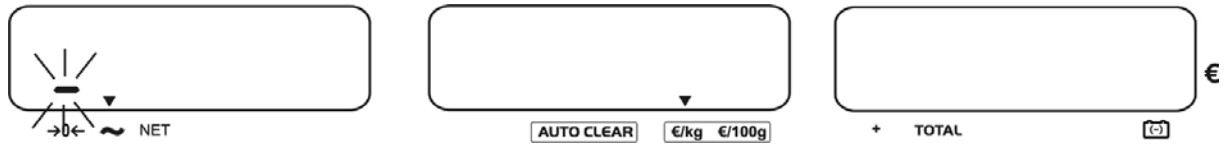


If „0000“ appears on the display this is a sign that no item number has been stored. It is absolutely necessary that an item number is allocated.

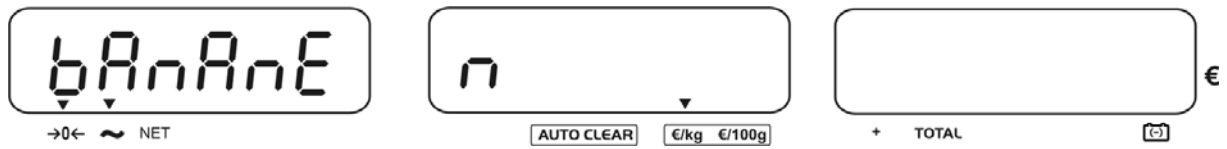
Enter or change the desired item number via the numeric keys  ~ .



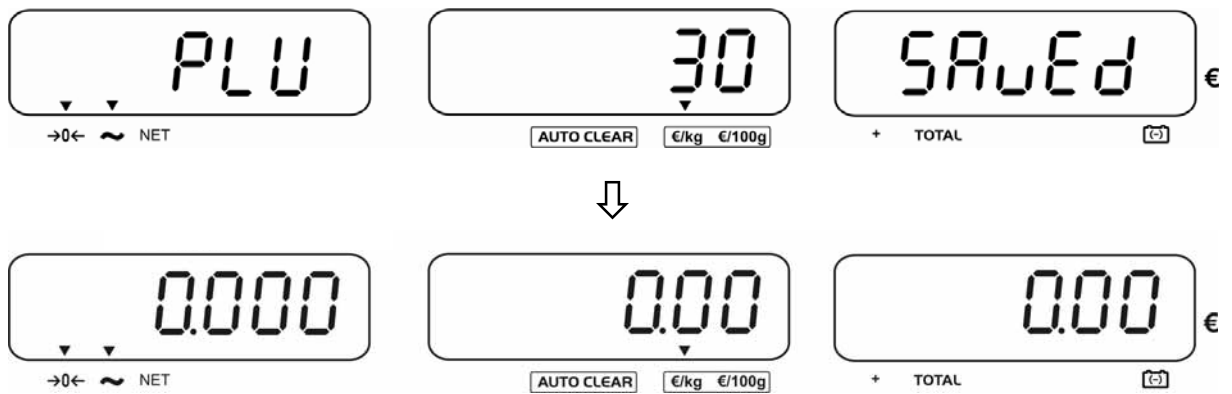
⇒ Press **TARE** and the window for entering the product name; the current digit is flashing.



⇒ Enter product name (max. 12 characters) by pressing **1 A** ~ **28 SHIFT**.

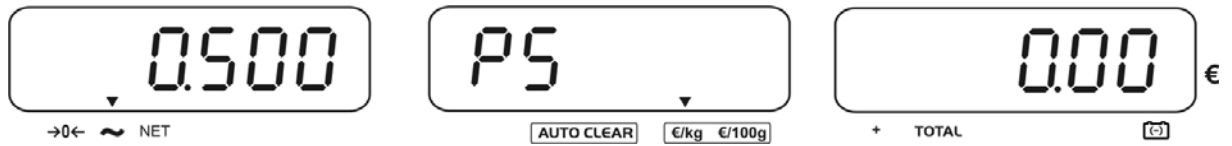




⇒ Press **TARE** and the basic price and product name will be save under the selected PLU (such as PLU 30).




Retrieve / show sales price:

⇒ Place item and press . The window for entering the desired PLU appears.



⇒ Enter the desired PLU via the numeric keys  ~  and the saved basic price as well as the sales price computed from it will be displayed.



⇒ Press  and a till voucher will be issued.

For printout sample see chapter 8.2

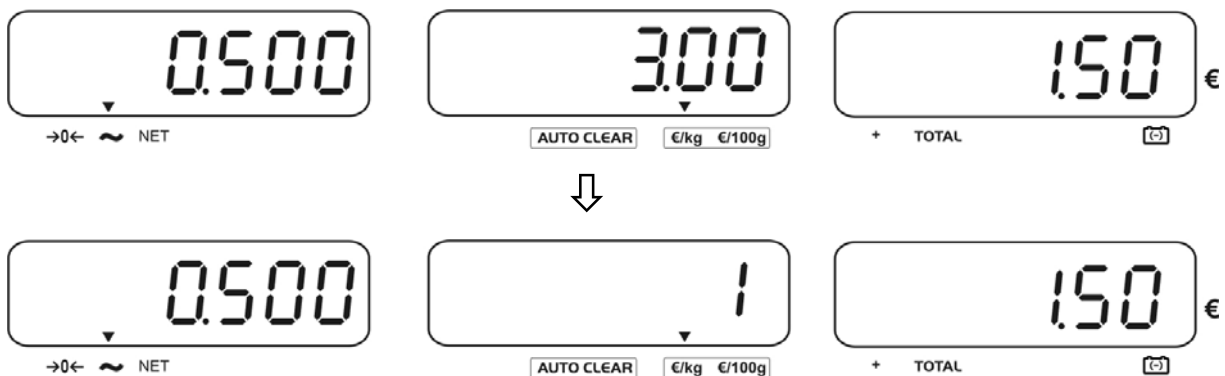
8.3 Totalization

- ⇒ Reset balance to zero by or tare the empty weighing container using if necessary. Wait for stability display to appear; symbol will appear above .



- ⇒ Place goods to be weighed A. Enter basic price via keyboard or call-up via PLU. The sales price will be computed and displayed automatically.

Wait until the stability display appears, then press . The sales price is added into the total adding memory. Total weight, number of weighings and Total are shown briefly, followed by originally weighed in quantity, basic price and sales price. Printing of till receipt will start at the same time.



- ⇒ Remove the weighed good. More weighed goods can only be added when the display = zero.



- ⇒ Place goods to be weighed B. Enter basic price via keyboard or call-up via PLU.

Wait until the stability display appears, then press . The sales price is added into the total adding memory. Total weight, number of weighings and Total are shown briefly, followed by originally weighed in quantity, basic price and sales price. Printing of till receipt will take place at the same time.








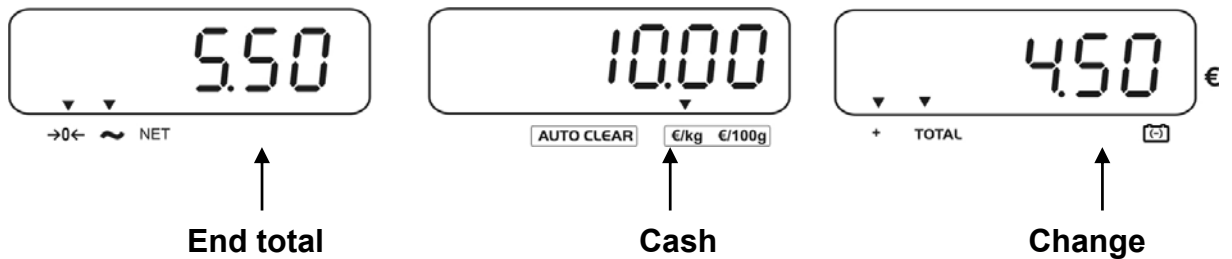
⇒ Add more weighed goods as described before. Please note that the balance must be unloaded between the individual weighing procedures.

⇒ Press “sum total”  in order to initiate display.




⇒ Sum total such as € 5.50 and the window for entering the amount of “received” will be shown.

⇒ Enter the amount for “received” such as € 10.00 via the numeric keys  ~  and confirm by pressing . The balance calculates automatically the and displays it, e.g. 4.50 €. Sum total, received amount (cash) and change will be printed out.




Printout example:

BANANAS		Saved product name	
2010/08/17	10:37 No. 01	Date	Time / item counter
Gross	Unit price	Poured quantity	Basic price
0.500 kg	3.00 €/kg		
Tare	Sub-total	Tare weight	Sales price
0.000 kg	1.50 €		
CHERRIES		Saved product name	
2010/08/17	10:39 No. 02	Date	Time / item counter
Gross	Unit price	Poured quantity	Basic price
1.000 kg	4.00 €/kg		
Tare	Sub-total	Tare weight	Sales price
0.000 kg	4.00 €		
Total		End total	
Cash		Amount "received"	
Change		Return	

⇒ Press  and the sum total memory will be deleted. The display is reset to zero.


or

⇒ Press  and the sum total memory will **not** be deleted. The display is reset to zero.


9 Additional useful functions

9.1 AUTO CLEAR


Enable:

- ⇒ To enable the AUTO-CLEAR function press ; the arrow above „AUTO CLEAR“ will start flashing on the display at the same time.
The set basic price is deleted automatically when balance is unloaded.


Disable:

- ⇒ Press  once more and the die AUTO-CLEAR function will be disabled; the arrow above the "AUTO CLEAR" will be hidden.
When the load is removed, the set basic price will be retained.

9.2 Display background illumination

- ⇒ Press  and hold until "backlight" is displayed, showing the current setting.




- ⇒ Press  repeatedly until the desired setting is displayed.





- on** Background illumination on
- off** Background illumination off
- Auto** Automatic background illumination on when weighing pate is loaded

- ⇒ Either save by pressing  or cancel by pressing .





9.3 How to set date/time for sales receipt

⇒ Press  and hold until “date” appears.



⇒ Enter the current date via the numeric keys  ~ . Either save entry by pressing  or cancel by pressing . The display will change to setting of time “Time”.



⇒ Enter the current time via the numeric keys  ~ . Either save entry by pressing  or cancel by pressing .

10 Printer „Sales receipt“

10.1 Printout examples

i To preconfigure the balance the requested printout configuration must be available before the verification.

1. Printout configuration

Menu setting „F10“:

CAL	F10	FormAt		
	CHAr	LEntH	1	
		Print	FormAt	1

BANANAS	
2010/08/17	10:37 No. 00
Gross	
	1.000 kg
Unit price	
	2.00 €/kg
Tare	
	0.000 kg
Total	
	2.00 €

2. Printout configuration

Menu setting „F10“:

CAL	F10	FormAt		
	CHAr	LEntH	2	
		Print	FormAt	1

BANANAS	
2011/01/17	10:37 No. 00
Gross	Unit price
1.000 kg	2.00 €/kg
Tare	Total
0.000 kg	2.00 €

3. Printout configuration

Menu setting „F10“:

CAL	F10	FormAt		
	CHAr	LEntH	1	
		Print	FormAt	2

BANANAS	
2010/08/17	10:37 No. 00
Net	
	1.000 kg
Unit price	
	2.00 €/kg
Total	
	2.00 €

4. Printout configuration

Menu setting „F10“:

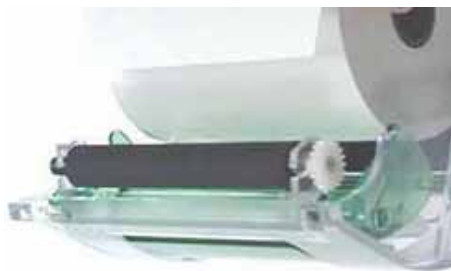
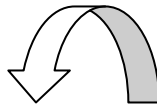
CAL	F10	FormAt		
	CHAr	LEntH	2	
		Print	FormAt	2

BANANAS	
2011/01/17	10:37 No. 00
Net	Unit price
1.000 kg	2.00 €/kg
Total	
	2.00 €

10.2 Change paper roll




- ⇒ To open, lift green cover and pull upwards.
- ⇒ Insert new roll of paper as shown on diagram.



- ⇒ Pull a short length of the end of the paper roll towards the front and close cover. Press evenly from both sides on the cover (See arrows).



- ⇒ Press  and the receipt will be moved on.

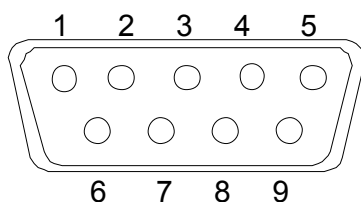
11 Data output RS 232C

The balance is typically equipped with a RS 232C interface.

11.1 Technical data

- ASCII Code
- 8 data bits
- no parity bit
- baud rate 9600 Baud

11.2 Pin allocation of the balance output socket (front view)



Pin 2: Transmit data
 Pin 3: Receive data
 Pin 7: Signal ground

12 Service, Maintenance, Disposal, Error messages

12.1 Cleaning

Before cleaning, disconnect the appliance from the operating voltage.

Please do not use aggressive cleaning agents (solvents or similar agents), but a cloth dampened with mild soap suds. Take care that the device is not penetrated by fluids and polish it with a dry soft cloth. Loose residue sample/powder can be removed carefully with a brush or manual vacuum cleaner.

Spilled weighing goods must be removed immediately.

12.2 Service, maintenance

The appliance may only be opened by trained service technicians who are authorized by KERN. Before opening, disconnect from power supply.

12.3 Disposal

Disposal of packaging and appliance must be carried out by operator according to valid national or regional law of the location where the appliance is used.

12.4 Error messages

ERR 4	Zero range exceeded
ERR 5	Invalid entry
ERR 6	Damaged electronics