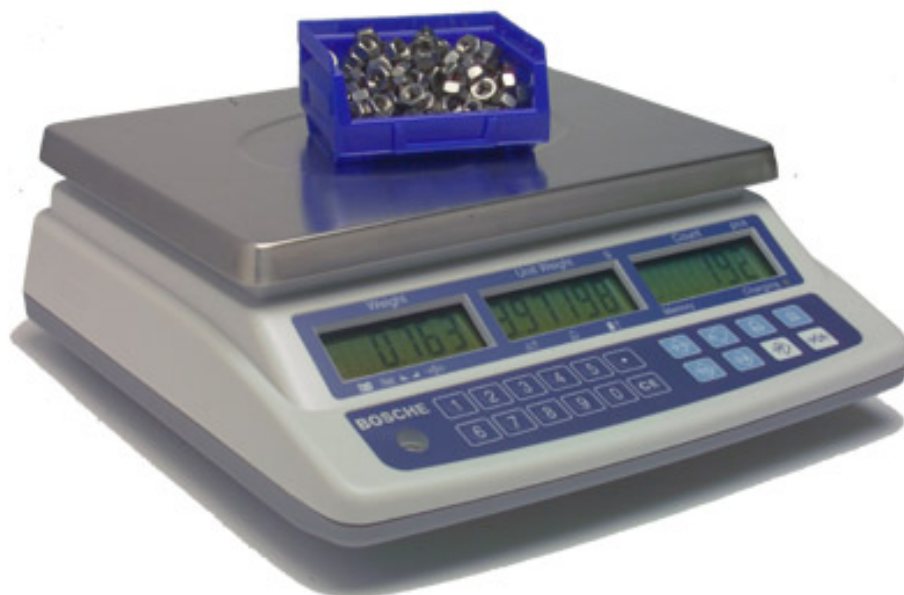


BOSCHE

Counting Scale **CS 60 000**



User's manual

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1. INTRODUCTION

Please read the operating instructions carefully before erecting and commissioning, even if you already have experience with BOSCHE scales.

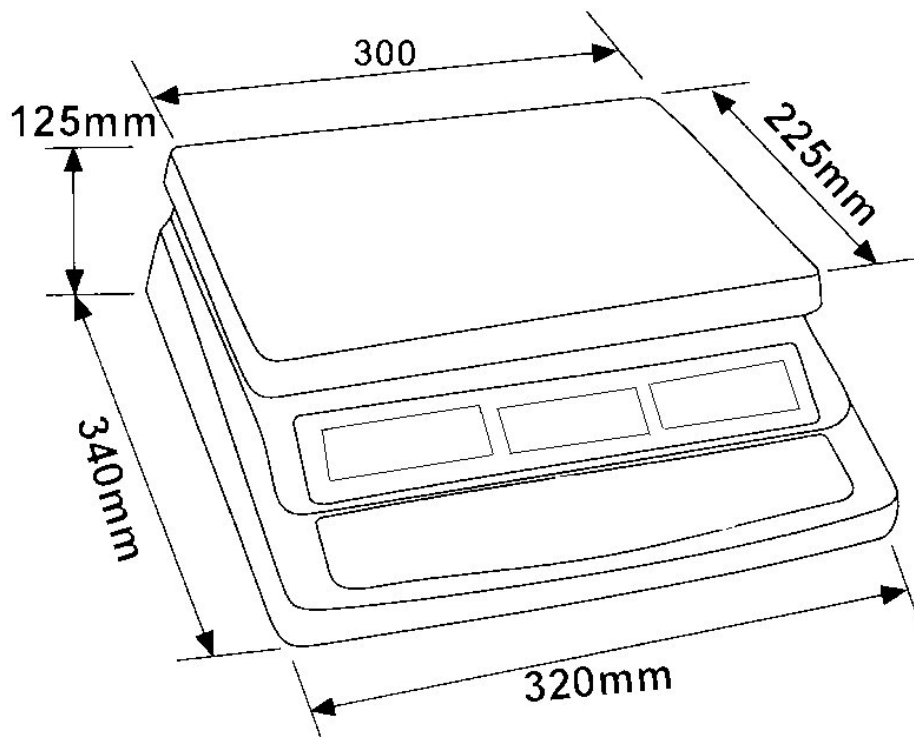
The CS series of scales provides an accurate, fast and versatile series of counting and check-weighing scales.

There are 3 models in this series, with capacities up to 30 kg.

They all have stainless steel weighing platforms on an ABS base assembly.

All the keypads are sealed, color coded membrane switches and the displays are large easy to read liquid crystal type displays (LCD). The LCD's are supplied with a backlight.

All units include automatic zero tracking, audible alarm for pre-set weights, automatic tare, pre-set tare and an accumulation facility that allows the count to be stored and recalled as an accumulated total.



2. TECHNICAL SPECIFICATIONS

BOSCHE	CS 60 000		
Maximum Capacity, Max	6kg	15kg	30kg
Readability, d	0.1g	0.2g	0.5g
Repeatability	0.2g	0.5g	1g
Min. piece weight at piece count.	0.05 g/pcs	0.1 g/pcs	0.2 g/pcs
Linearity \pm	$\pm 0,4$ g	$\pm 0,8$ g	$\pm 1,5$ g
Tara	-6kg	-10kg	-30kg
Resolution	1:60.000		

Stabilisation Time	2 Seconds typical
Operating Temperature	0°C - 40°C
Operating Relative Humidity	max. 80 % relativ
Power supply (external)	internal rechargeable battery or main power 9 VDC, 800 mA, Akku 6V/4Ah
Battery operating time	90 hours / charging 12 hours
Calibration	Lockable keyboard calibration and configuration
Max. Resolution	External 1/60.000; Internal 1/100.000
Display	3 x 6 digits LCD digital display, 20mm digits
Keyboard	Tact-Switch
Pan Size	Stainless Steel platform 225 x 300mm
Housing (wxdxh) mm	ABS housing IP54 320 x 340 x 125mm Stainless Steel platform
Weight kg (netto)	3.8kg

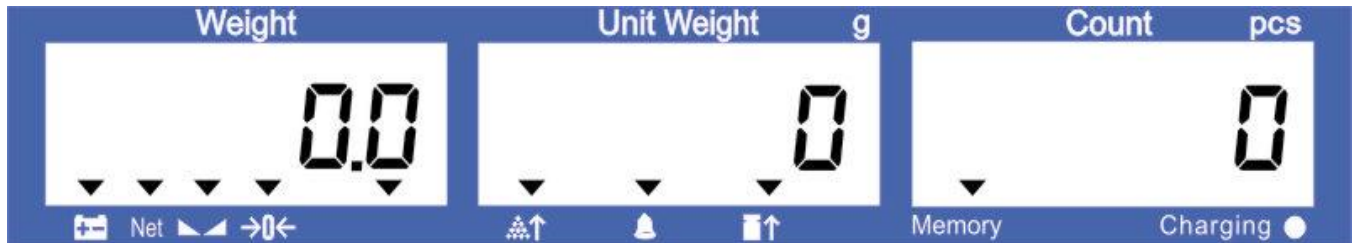
Standard accessories:

- Scale with built in rechargeable battery
- Stainless Steel platform
- Cover
- Power cord
- Interface RS 232
- Operating instructions

3. DISPLAY

The scales have three digital displays. The displays show WEIGHT, UNIT WEIGHT and QUANTITY.

1. WEIGHT
2. UNIT WEIGHT
3. COUNT



3.1 WEIGHT

Digit display to indicate the weight on the scale.
Arrows above symbols will indicate the following:



Battery status

Net

Net Weight Display



or "Stable" Stability indicator



Zero Indicator

3.2 UNIT WEIGHT

This display will show the unit weight of a sample. This value is either input by the user or computed by the scale. The unit of measure is grams on all scales.



SAMPLE - Indicators will show when the scale has determined that there is an insufficient number of samples to accurately determine the count



U. Weight - When the unit weight is not large enough to determine an accurate count

In both cases the scale continues to operate and the indications are to alert the user to a potential problem.



PRESET - If a preset count has been stored

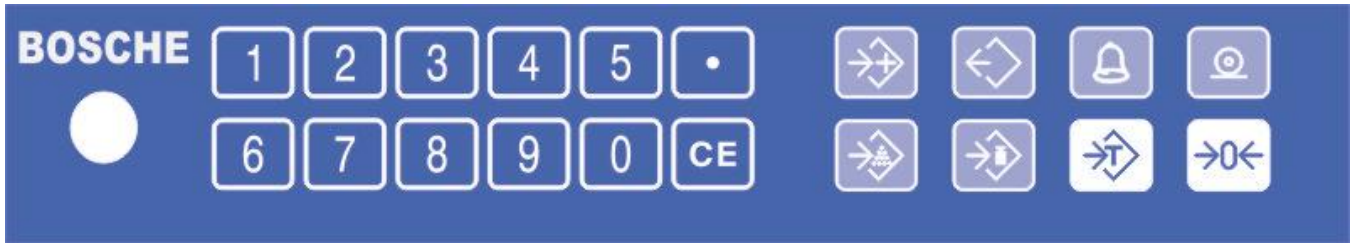
3.3 COUNT

This display will show the number of items on the scale or the value of the accumulated count. See OPERATION section.









Memory Indicators will show when a value has been entered into memory

Charging the LED indicate the status of battery charging. If the LED is green the battery has a full charge. If it is Red the battery is nearly discharged and yellow indicates the battery is being charged.

4. KEYBOARD



Key Functions

0-9 .	Numeric entry keys, used to manually enter a value for tare weights, unit weight, and sample size.
CE CE	Used to clear the unit weight or an erroneous entry.
 M+	Add the current count to the accumulator. Up to 99 values or full capacity of the weight display can be added.
 MR	To recall the accumulator memory.
 Pst	To set the upper limit for the number of items counted. When this upper limit is exceeded the scale will sound the beeper.
 Print	To print the results to a PC or printer using the optional RS-232 interface.
 Smpl	Used to input the number of items in a sample.
 Units	Used to enter the weight of a sample manually. Change weighing unit.
 Tare	Tares the scale. Stores the current weight in memory as a tare value, subtracts the tare value from the weight and shows the results. This is the net weight. Entering a value using the keypad will store that value as the tare value.
 Zero	Set the zero point for all subsequent weighing. The display shows zero.

5. Fundamental information

5.1 INTENDED USE

The scale you have acquired serves to determine the weighing value of the material to be weighed. It is intended to be used as a "non-automatic" scale. i.e. the material to be weighed is manually and carefully placed in the centre of the weighing plate. The weighing value can be read off after a stable weighing value has been obtained.

5.2 INAPPROPRIATE USE

Do not use the scale for dynamic weighing. 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 scale. (Example: Slow draining off of liquid from a container suspended from the balance).

Do not leave a permanent load on the weighing plate. This can damage the measuring equipment. Be sure to avoid impact shock and overloading the balance in excess of the prescribed maximum load rating (max.), minus any possible tare weight that is already present. This could cause damage to the scale.

Never operate the balance in hazardous locations.

The series design is not explosion proof.

Structural alterations may not be made to the balance. This can lead to incorrect weighing results, faults concerning safety regulations as well as to destruction of the scale.

The scale may only be used in compliance with the described guidelines.

Varying areas of application/planned use must be approved by BOSCHE in writing.

Do not use the crane balance to transport loads.

5.3 GUARANTEE

BOSCHE offers Limited Warranty (Parts and Labour) for the components failed due to defects in materials or workmanship. Warranty starts from the date of delivery.

BOSCHE shall have the right to either repair the fault or supply a replacement unit. Repairs carried out under the warranty does not extend the warranty period.

The guarantee is not valid following:

- non-observation of our guidelines in the operating instructions
- use outside the described applications
- alteration to or opening of the device
- mechanical damage and damage caused by media, liquids
- natural wear and tear
- inappropriate erection or electric installation

5.4 MONITORING THE TEST SUBSTANCES

The metrology features of the balance and any possible available adjusting weight must be checked at regular intervals within the scope of quality assurance. For this purpose, the answerable user must define a suitable interval as well as the nature and scope of this check.

5.5 ACCEPTANCE CHECK

Please check the packaging immediately upon delivery and the device during unpacking for any visible signs of external damage.

5.6 PACKAGING

Please retain all parts of the original packaging in case it should be necessary to return items at any time. Only the original packaging should be used for return consignments.

Before despatch, disconnect all attached cables and loose/movable parts.

Apply any intended transport security devices. Secure all parts to prevent slipping and damage.

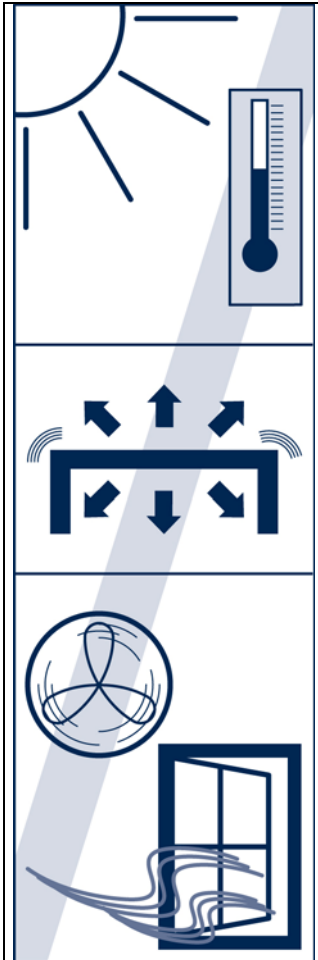
6. INSTALLATION

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.

6.1 GENERAL INSTALLATION

The scales should be sited in a location that will not degrade the accuracy.

	<ul style="list-style-type: none"> • The scales should not be placed in a location that will reduce the accuracy. • Avoid extremes of temperature. Do not place in direct sunlight or near air conditioning vents. • Avoid unsuitable tables. The table or floor must be rigid and not vibrate. • Avoid unstable power sources. Do not use near large users of electricity such as welding equipment or large motors. • Do not place near vibrating machinery. • Avoid high humidity that might cause condensation. Avoid direct contact with water. Do not spray or immerse the scales in water. • Avoid air movement such as from fans or opening doors. Do not place near open windows or air-conditioning vents. • If the scale is long time not in use, please charge every 3 month the battery. • Keep the scales clean. • Do not stack material on the scales when they are not in use.
--	--

Attention: ⇒ A warm-up time of 15 minutes stabilises the measured values after switching on.

⇒ Do not stack material on the scales when they are not in use.



⇒ Place the products in the middle of the scale.

⇒ Don't overload the scale.

6.2 INSTALLATION OF CS SERIES

- The CW Series comes with a stainless steel platform and wind shield packed separately.
- Place the platform in the locating hole on the top cover.
- Do not press with excessive force as this could damage the load cell inside.
- Level the scale by adjusting the four feet. The scale should be adjusted such that the bubble in the spirit level is in the centre of the level and the scale is supported by all four feet. If the scale rocks readjust the feet.



Right



Wrong

- Attach the mains cable to the connector on the bottom of the scale. The power switch is located on the base near the front of the scale.
- Next a self-test is followed. At the end of the self-test, it will display "0,0".

6.3 BATTERY OPERATION

The scales can be operated from the internal battery.

Power is supplied via the external mains adapter. The stated voltage value must be the same as the local voltage. **Only use original BOSCHE mains adapters.**

The battery should be 15 hours charged before first use. The battery life is approximately 90 hours. The battery should be charged for 12 hours for full capacity.

When the battery needs charging the arrow above the low battery symbol under the weight display will turn on. The battery should be charged as soon as the arrow above the symbol is on. The scale will still operate for about 10 hours after which it will automatically switch off to protect the battery.

To charge the battery simply plug into the mains power. The scale does not need to be turned on.

Just under the quantity display is an LED to indicate the status of battery charging. When the scale is plugged into the mains power the internal battery will be charged. If the LED is green the battery has a full charge. If it is Red the battery is nearly discharged and yellow indicates the battery is being charged.

6.4 CONNECTION OF PERIPHERAL DEVICES

Make absolutely sure to unplug the weighing instrument from AC power before you connect or disconnect a peripheral device (printer or PC) to or from the interface port.


With your balance, only use accessories and peripheral devices by BOSCHE, as they are ideally tuned to your balance.

6.5 SET BACKLIGHT

Press  for 4 seconds

EL AU

Select the setting:


Press  key to enter backlight setting

EL on

EL off => Backlight always off.

EL on => Backlight always on.

EL AU => "Auto Backlight" mode. Backlight will on when press any key or add load on scale.

Press  key to save the settings.

7. WEIGHING

Switch the scale on. The power switch is located on the base near the front of the scale.


Next a self-test is followed. At the end of the self-test, it will display "0".

A warm-up time of 15 minutes stabilises the measured values after switching on.

Once the weight display appears, the scale is ready for use. Place the products on the scale. The indicator will show the weight. Place the carefully products on the scale. Display will show the weight. Do not stack material on the scales when they are not in use. Don't overload the scale, this could damage the scale.

7.1 RESETTING THE SCALE TO ZERO

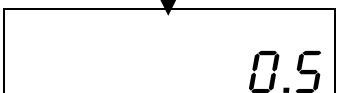
Environmental influences can cause the scale not to display exactly "0.00", even though the scale is empty.

The scale has an automatic re-zeroing function to account for minor drifting or accumulation of material on the platform. However you may need to press  to re-zero the scale if small amounts of weight are still shown when the platform is empty, and thereby be certain that all weighing operations begin at zero.

Switch the scale on.




At the end of the self-test, all 3 displays will show "0".




Sometimes the scale do not display exactly "0.00".

Press 



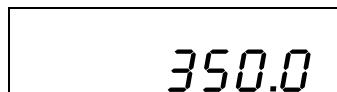
The scale is reseted to 0.00".
An arrow in display above  appear.


Resetting to zero even when there is a weight on the scale is only possible within a certain weight range (-4 % ... +4 % of max. weight range).

If the scale cannot be reset to zero with a weight on it, this range was exceeded. By using  the scale can be reset to "0.00".

7.2 SIMPLE WEIGHING

Place the products on the scale.



A value for its weight will be displayed and the stable indicator  is on.



Please do not add item that is over the maximum capacity. When reading "—OL—" and hear beeping sound, remove the item on the platter to avoid damage to the load cell.

7.3 TARE WEIGHING

There are two methods to enter a tare value. The first uses the weight on the platform and the second uses a value input by the user.

7.3.1 Normal Tare

Place a container on the platform.

Press 

132.0

A value for its weight will be displayed.

0.0

Place the products in the container.


The weight that was displayed is stored as the tare value and that value is subtracted from the display, leaving zero on the display. The "Net" indicator will be on.

1256.0

As product is added, only the weight of the product will be shown.

The scale could be tared a second time if another type of product was to be added to the first one. Again only the weight that is added after taring will be displayed.

When the container is removed a negative value will be shown. If the scale was tared just before removing the container this value is the gross weight of the container plus all product that was removed.

Deleting Tare - To delete the stored tare weight, remove any weights from the balance and press the  key.

7.3.2 Pretare

This method allows you to enter a value for the tare weight from the keypad. This is useful if all containers are the same or if the container is already full but the net weight is required and the tare weight of the container is known.


Remove all weight from the platform,

press 

to zero the display

0.0

Enter the value for the Tare weight using the keypad.

Press  to store the tare value.

- 3.20

The weight will show a negative value equal to the tare. The "Net" indicator will be on.

Place the container + goods on the platform.

12.0

Only the net weight of the contents will be displaying.

8. PARTS COUNTING

During parts counting, parts can be added or subtracted from a container. In order to do parts counting it is necessary to know the average weight of the items to be counted. This can be done by weighing a known number of the items and letting the scale determine the average unit weight or by manually inputting a known weight using the keypad.

The greater the reference unit, the greater the counting accuracy.

A particularly high reference must be chosen for small or greatly varying parts.

8.1 WEIGHING A SAMPLE TO DETERMINE THE UNIT WEIGHT

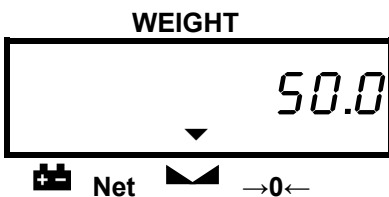
In order to do parts counting it is necessary to know the average weight of the items to be counted. This can be done by weighing a known number of the items and letting the scale determine the average unit weight or by manually inputting a known unit weight using the keypad. The scale will then divide the total weight by the number of items and display the average unit weight.

Zero the scale by pressing the [Zero] key if necessary. If a container is to be used, place the container on the scale and tare as discussed earlier.

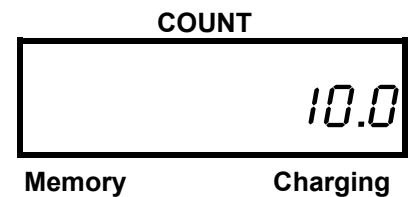


Place a known quantity (for example 10 pcs.) of the items on the scale .

After the weight display is stable, enter the quantity of items using the numeric keys followed by press key.



The computed average weight will be shown.



The number of units will be displayed.

If no reference can be created because the item being weighed is too unstable or the reference weight is too small, the balance display will indicate .

In this case, place the desired number of units on the weighing plate and confirm by pressing the key.

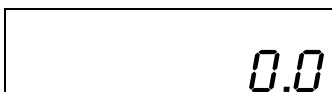
Note:



We recommend that you use the largest possible reference quantity. The balance computes the mean weight per unit and stores it as the reference weight. It is unlikely that all units have exactly the same weight and, therefore, the reference weight will be more accurate when the reference quantity is.

8.2 ENTERING A KNOWN UNIT WEIGHT

If the unit weight is already known then it is possible to enter that value using the keypad. Enter the value of the unit weight using the numeric keys followed by pressing the key. "Unit Weight" display will show the value as it was entered.



Zero the scale by pressing the key if necessary. If a container is to be used, place the container on the scale and tare as discussed earlier.

Enter the value of the unit weight using the numeric keys followed by pressing .

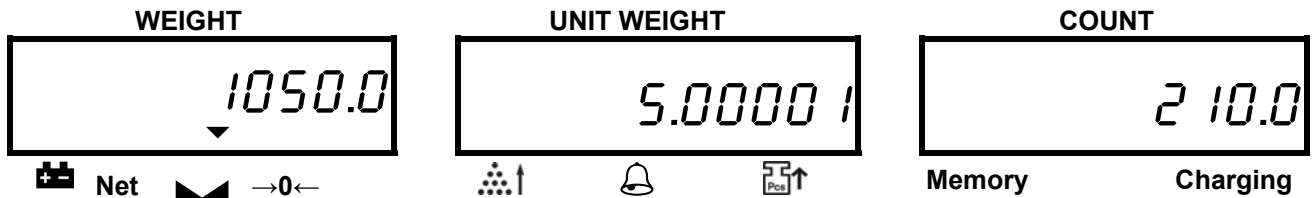
The sample is then added to the scale and the weight will be displayed as well as the quantity, based on the unit weight.

8.3 COUNTING


After the unit weight has been determined or entered, it is possible to use the scale for parts counting. The scale can be tared to account for the container weight as discussed in the earlier section. After the scale is tared the items to be counted are added and the "Count" display will show the number of items, computed using the total weight and the unit weight.

Then place the parts to be counted on the plate.


The weight, unit weight and computed number of units will be displayed:



The sample is then added to the scale and the weight will be displayed as well as the quantity, based on the unit weight.


It is possible to increase the accuracy of the unit weight at any time during the counting process by entering the count displayed and then pressing the  key. You must be certain that the quantity displayed matches the quantity on the scale before pressing the key. The unit weight can be adjusted based upon a larger sample quantity. This will give greater accuracy when counting larger sample sizes.

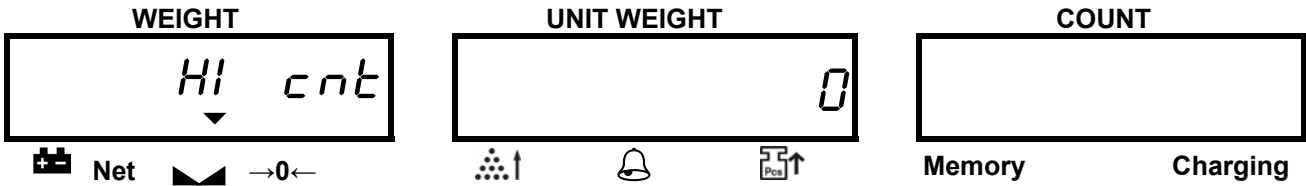
8.4 AUTOMATIC PART WEIGHT UPDATES


The scales will automatically update the unit weight when a sample less than the sample already on the platform is added. A beep  will be heard when the value is updated.

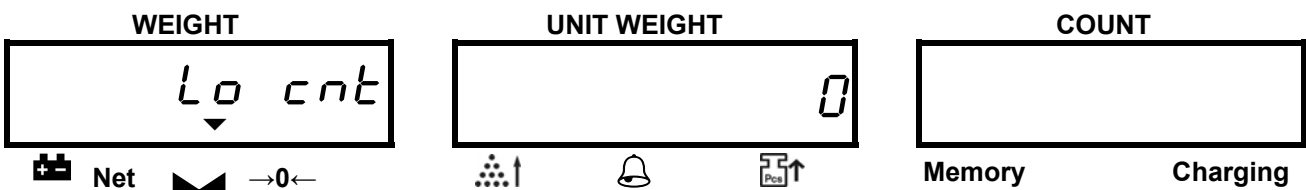
It is wise to check the quantity is correct when the unit weight has been updated automatically. This feature is turned off as soon as the number of items added exceeds the count used as a sample.

8.5 COUNT PRESET OR CHECK-WEIGHING


Check-weighing (Count Pre-setting) is a procedure to cause an alarm to sound when the number of items counted on the scale meets or exceeds a number stored in the memory by using the  key.



Enter the High number limit from the keyboard and press the  Tare - key.




Enter the low number limit from the keyboard and press the  Tare - key.

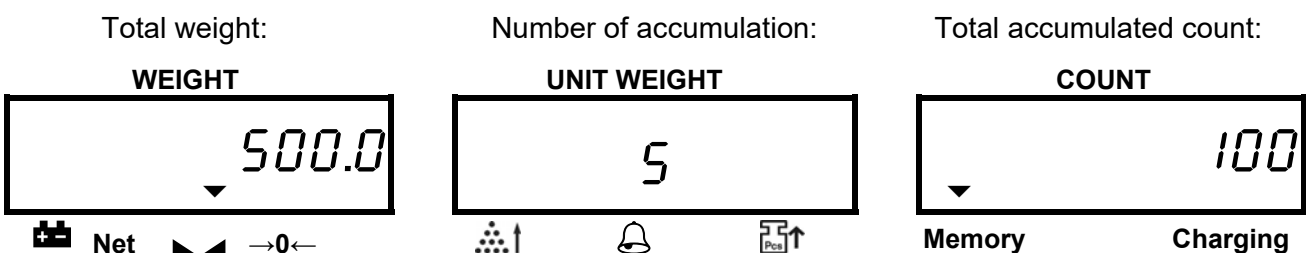
To clear the value from the memory and thereby turn off the check-weighing feature, enter the value "0" and press .

8.6 MANUALLY ACCUMULATED TOTALS

This function allows you to perform several weighing operations. The total number of units and the quantity of weighing operations is then displayed.

The values (weight and count) shown on the display can be added to the values in the accumulator by pressing the  key.

The "Weight" display will show the total weight, the "Count" display will show the total accumulated count and the "Unit Weight" display shows the number of times, the items have been added to the memory for accumulation. The values will be displayed for 2 seconds before returning to normal.




If you the printer is added, after press  key the values will be printed via the RS-232 interface.

The scale must return to zero or a negative number, before another sample can be added to the memory.


More products can then be added and the  key to be pressed again. This can continue for up to 99 entries or until the capacity of the "Weight" display is exceeded.


To observe the total stored value, press the  key. The total will be displayed for 2 seconds.

To clear the memory- first press  to recall the totals from memory and then press the .

key to clear all values from the memory.

8.7 AUTOMATIC ACCUMULATED TOTALS

The scale can be set to automatically accumulate totals when a weight is placed on the scale and it is stable. This eliminates the need to press the  key to store values into the memory.


However the  key is still active and can be pressed to store the values immediately. In this case the values will not be stored when the scale returns to zero.


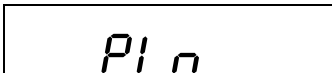
See the next Section on PARAMETERS for details on how to enable Automatic Accumulation.


9. PARAMETERS

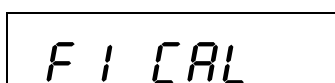
To set the parameters it is necessary to enter a secure menu by entering a password number when requested.

9.1 PARAMETER MENU

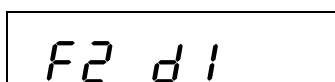
To enter the parameter menus press  once, during the initial counting of the display after the power is turned on.

Press  

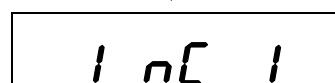
Enter Password 0000
and press 



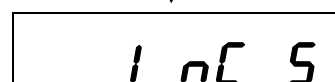
Press 




Press 




Press  to enter
the Parameter





At any time press
the  key to
return to weighing










The "Weight" display will show "PIn " requesting the password number to be entered.

The Parameter menu has 6 functions that can be accessed using the  key to cycle through the choices.

The "Weight" display will show the name of the functions. To enter a function, press the  key.

Press the  key to store the changed value.

9.2 NAVIGATION IN MENU

Weight Display	Options	Description
F1 CAL		See the Calibration section 10 for details.
F2 dI	HnI 1 HnI 2 HnI 5 HnI 10	Sets the scale increment. Press the  key to cycle through the options (1,2,5,10). Press  to accept the selection.
F3 Cnt		Displays the A/D counts. Press  to return to menu.
F4 AU	B 600 B 1200 B 2400 B 4800 B 9600 AU on AU off P Cont	Baudrate Automatic accumulation on see also Chapter. 6.6 Manual accumulation see also Chapter. 6.5 Continuous - the user must press  to accumulate data.
F5 RZn	0.5d 1d 2d 4d	Press  to show the options for the auto-zero range. The value can be set to 0.5d, 1d, 2d or 4d. This is normally set to 1d but can be increased to force the scale to zero if it is likely to have small amounts of material spilled on the platform while in use.
F6 PIn		Set a new password number. Display will show "P1 " Enter the new password number then press the  key. Display will change to "P2 ", Enter the password again and press  again. The display will show "done E" to show the new password has been accepted. Record the new password number in a secure place.
F7 SPd	7.5 15 30 60	This is used to set the speed at which the scale will run the ADC. The settings are 7.5, 15, 30 and 60. The slowest setting is 7.5 and the fastest is 60.

Form one

	0	1	2	3
	tpup	tpup	tpup	tpup
0	GS: 0.888kg	NT: 0.666kg TW: 0.222kg GW: 0.888kg	GS: 0.222kg TOTAL: 0.222kg	NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 0.222kg
1	DATE: 04/06/06 GS: 0.888kg	DATE: 04/06/06 NT: 0.666kg TW: 0.222kg GW: 0.888kg	DATE: 04/06/06 GS: 0.222kg TOTAL: 0.444kg	DATE: 04/06/06 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 0.444kg
2	TIME: 11/11/11 GS: 0.888kg	TIME: 11/11/11 NT: 0.666kg TW: 0.222kg GW: 0.888kg	TIME: 11/11/11 GS: 0.222kg TOTAL: 0.666kg	TIME: 11/11/11 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 0.666kg
3	DATE: 04/06/06 TIME: 11/11/11 GS: 0.888kg	DATE: 04/06/06 TIME: 11/11/11 NT: 0.666kg TW: 0.222kg GW: 0.888kg	DATE: 04/06/06 TIME: 11/11/11 GS: 0.222kg TOTAL: 0.888kg	DATE: 04/06/06 TIME: 11/11/11 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 0.888kg
4	NO.: 4 GS: 0.888kg	NO.: 4 NT: 0.666kg TW: 0.222kg GW: 0.888kg	NO.: 4 GS: 0.222kg TOTAL: 1.000kg	No.: 4 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 1.000kg
5	DATE: 04/06/06 NO.: 5 GS: 0.888kg	DATE: 04/06/06 NO.: 5 NT: 0.666kg TW: 0.222kg GW: 0.888kg	DATE: 04/06/06 NO.: 5 GS: 0.222kg TOTAL: 1.222kg	DATE: 04/06/06 No.: 5 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 1.222kg
6	TIME: 11/11/11 NO.: 6 GS: 0.888kg	TIME: 11/11/11 NO.: 6 NT: 0.666kg TW: 0.222kg GW: 0.888kg	TIME: 11/11/11 NO.: 6 GS: 0.222kg TOTAL: 1.444kg	TIME: 11/11/11 No.: 6 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 1.444kg
7	DATE: 04/06/06 TIME: 11/11/11 NO.: 7 GS: 0.888kg	DATE: 04/06/06 TIME: 11/11/11 NO.: 7 NT: 0.666kg TW: 0.222kg GW: 0.888kg	DATE: 04/06/06 TIME: 11/11/11 NO.: 7 GS: 0.222kg TOTAL: 1.666kg	DATE: 04/06/06 TIME: 11/11/11 No.: 7 NT: 0.222kg TW: 0.666kg GW: 0.888kg TOTAL: 1.666kg

Form two

	0	1	2	3
	LP-50	LP-50	LP-50	LP-50
0	2000/00/00 00:00 S/N 1 GW 0.888kg	As left	As left	As left
1	DATE: 2000/00/00 TIME: 00:00 GW: 0.888kg	As left	As left	As left
2	DATE: TIME: 00:00 S./NO.: 2 GROSS WT: 0.888kg	As left	As left	As left
3	2000/00/00 00:00 S/N 0003 GW 0.888kg	As left	As left	As left
4	2000/00/00 00:00 S/N 4 GW 0.888kg	As left	As left	As left
5	DATE: 2000/00/00 TIME: 00:00 GW: 0.888kg	As left	As left	As left
6	DATE: TIME: 00:00 S./NO.: 6 GROSS WT: 0.888kg	As left	As left	As left
7	2000/00/00 00:00 S/N 7 GW 0.888kg	As left	As left	As left

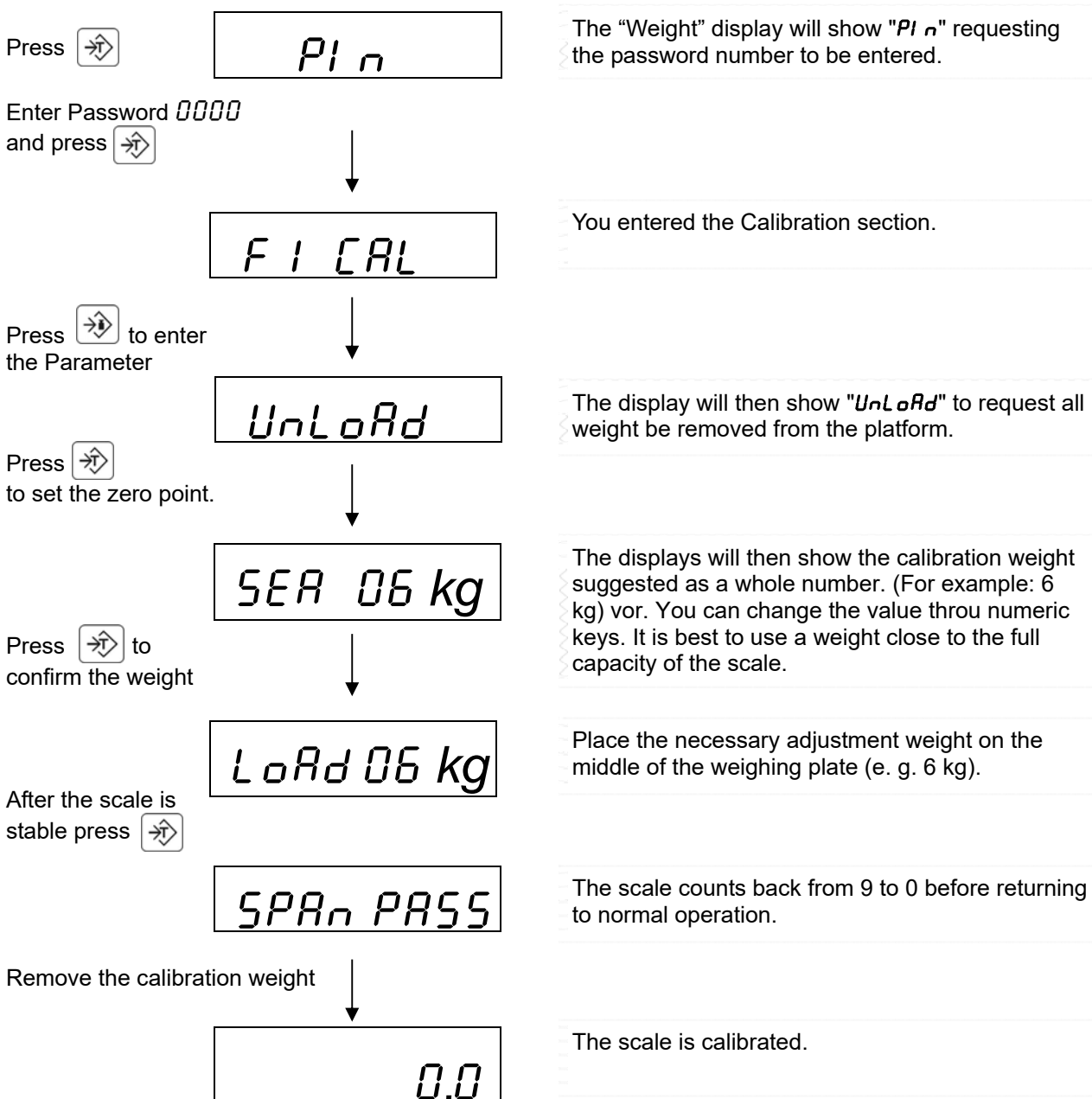
10. CALIBRATION

As the acceleration value due to gravity is not the same at every location on earth, each scale 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 during the initial start-up, after change in location and variation of surrounding temperature. It is also recommendable to adjust the balance periodically during weighing operation in order to obtain exact measured values.

Calibration:

Please make sure, that there are stable conditions at the calibration location. A warm up period of 10 minutes for stabilization is necessary. Make sure that there are no objects on the plate of the scale.

Press the  key once, during the initial counting of the display after the power is turned on.



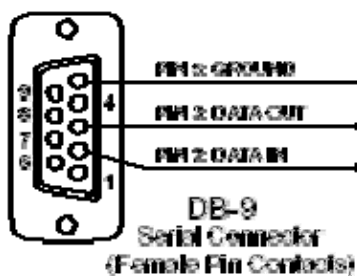
11. RS 232 Interface

The announcements of the CS series can be equipped when desired with R-S 232 interface. If the balance is attached over this interface to a computer or a printer, it prints the balancing result as well as the selected balancing unit.

11.1 SPECIFIKATION OF THE RS 232 DEVICE



- RS-232 output of weighing data
- ASCII code
- 8 Data bits
- No Parity
- Baudrate: **4800**

11.2 CONNECTOR



Pin 2: Receive data
Pin 3: Transmit data
Pin 5: Signal ground

11.3 PRINT OUTPUT

Normal print out:  or 
Sample:

GS	1.234 kg	GS for Gross weight, NT for net weight kg/g Piece Includes 2 line feed
U.W.	123 g	
PCS 10		
<lf> <lf>		

Data Format- Memory Recall Print::  and 
Sample:

<lf> TOTAL Wgt 1.234 kg PCS 10 <lf>	Includes 1 line feed Piece Includes 1 line feed
---	---

12. MAINTENANCE, DISPOSAL

12.1 CLEANING

Only use a cloth dampened with mild suds and not aggressive cleaning agents (solvents or similar). Please ensure that fluids are not able to get into the device and rub off using a clean, soft cloth. Loose sample residue/powder can be removed carefully using a brush.

12.2 MAINTENANCE, UPKEEP

The device may only be opened by trained service engineers authorised by BOSCHE.

Disconnect from the mains supply before opening.

The battery is not water-proof, so the contact with water is forbidden. If the battery should become wet or it is visible damaged, don't use the battery.

12.3 DISPOSAL

In conformance with the European Directive 2002/96 EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.



Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.

If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

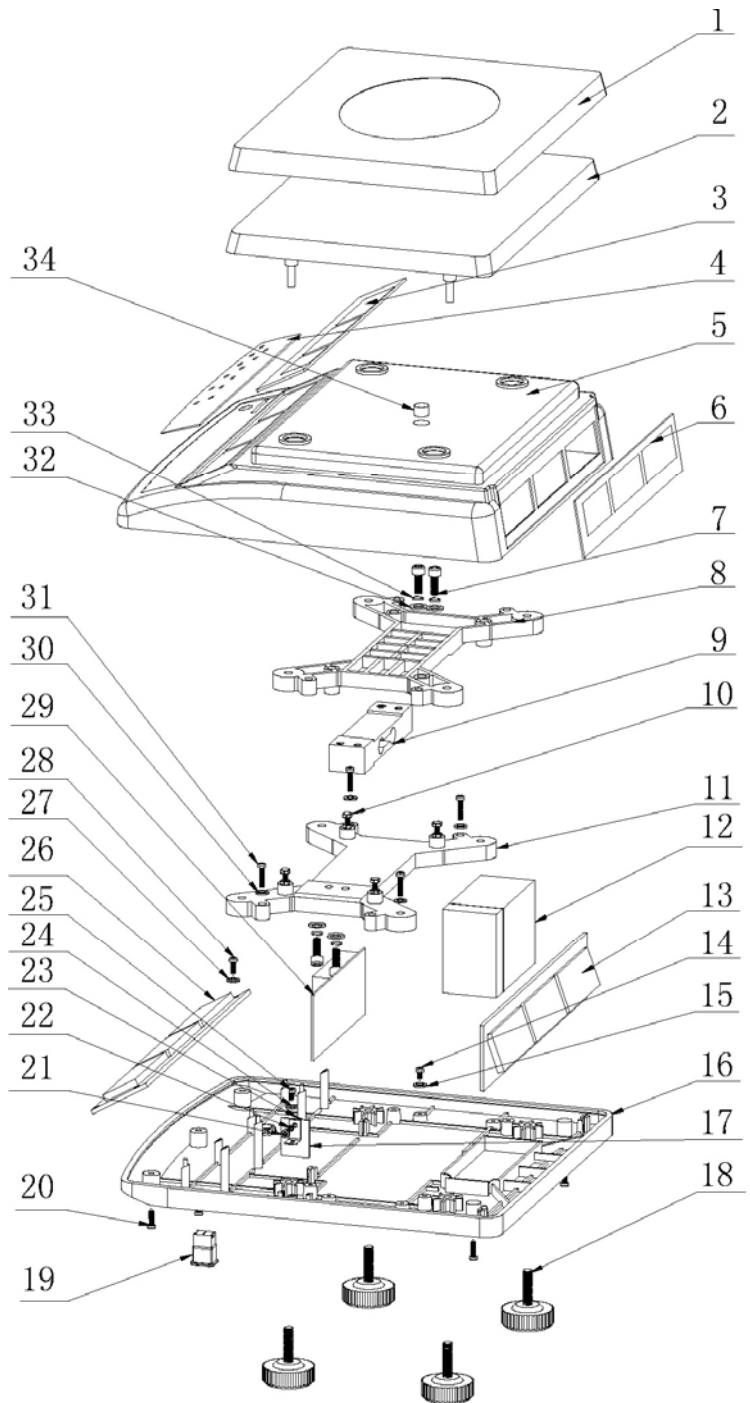
Thank you for your contribution to environmental protection.

13. Spare parts & Accesories

If you need spare parts or accessories, please contact your dealer or BOSCHE.

Here some spare parts for example:


- battery
- RS 232 Interface
- power cord
- dust cover



14. ERROR CODES

During operation or calibration, certain conditions may appear to be incorrect as determined by the scale. In such cases, an error code will be displayed.

Error	POSSIBLE CAUSES
Display is blank	<ul style="list-style-type: none"> On/Off switch on rear panel is off Scale not turned on Battery not charged
Display is unstable	<ul style="list-style-type: none"> Drafts or air currents Load cell connections not secure Obstruction under weighing platform Sample is moving (animal weighing) Vibrations through table or floor Temperature changed dramatically Power supply faulty
Weight value incorrect	<ul style="list-style-type: none"> Calibration error, Recalibrate Unit calibrated with inaccurate weight Obstruction around platform

ERROR CODE	DESCRIPTION	POSSIBLE CAUSES
<i>Err 4</i>	Initial Zero is greater than allowed (4% of maximum capacity) when power is turned on or when the  key is pressed.	<ul style="list-style-type: none"> Weight on the pan when turning the scale on. Excessive weight on the pan when zeroing the scale. Improper calibration of the scale. Damaged load cell. Damaged Electronics.
<i>Err 5</i>	Keyboard Error.	<ul style="list-style-type: none"> Improper operation of the scale.
<i>Err 6</i>	A/D count is not correct when turning the scale on.	<ul style="list-style-type: none"> Platform not installed. Load cell damaged. Electronics damaged.
<i>FAIL HI</i> or <i>FAIL Lo</i>	Calibration error	<ul style="list-style-type: none"> Wrong calibration ($\pm 10\%$ from factory calibration).
<i>Err 9</i>	Display is unstable.	<ul style="list-style-type: none"> Affected by a wind or oscillation. Check location and response speed. Damaged Electronics.

If there are other disturbances or error messages, please turn the scale off and restart it after one minute. It is then necessary to repeat the weighing process from the beginning.

If error messages arise again, please contact the manufacturer.

15. SERVICE INFORMATION

This manual covers the details of operation. If you have a problem with the scale that is not directly addressed by this manual then contact your supplier for assistance. In order to provide further assistance, the supplier will need the following information which should be kept ready:

Details of your company

Name of your company:

Contact person's name:

Contact telephone, e-mail,

Fax or any other methods:

Details of the unit purchased

This part of information should always be available for any future correspondence. We suggest you to fill in this form as soon as the unit is received and keep a print-out in your record for ready reference.

Model name of the scale:	
Serial number of the unit:	
Software revision number (Displayed when power is first turned on):	
Date of Purchase:	
Name of the supplier and place:	

Brief description of the problem

Include any recent history of the unit. For example:

- Has it been working since it's delivered
- Has it been in contact with water
- Damaged from a fire
- Electrical Storms in the area
- Dropped on the floor, etc.

**KONFORMITÄTSERKLÄRUNG**

Declaration of conformity

Déclaration de conformité

Conformiteitsverklaring

Declaración de conformidad



Typ/Modell: Type/Model – Modèle – Model -Tipo/ Modelo :	CS60000 Seriennummern: CS2016A001-CS2016999 Serial numbers - Les numéros de série – Seriennummers - Números seriales:
Hersteller: Manufacturer – Fabricant – Fabrikant - Fabrikante:	BOSCHE GmbH & Co. KG Reselager Rieden 3 DE-49401 Damme

Die alleinige Verantwortung für die Ausstellung trägt der Hersteller.

The sole responsibility for the issue carries the manufacturer - La seule responsabilité de l'exposition porte le fabricant –
De verantwoordelijkheid voor de uitgifte draagt de fabrikant.- El único responsable de la publicación lleva el fabricante.

Die nicht selbsttätige Waage CS60000

The non-automatic weighing instrument – L'instrument de pesage á fonctionnement non automatique –
De niet-automatische weeg – El pesaje de funcionamiento no automático



Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

2014/30/EG

2014/35/EU

The object of the declaration described above complies with the relevant Union harmonization legislation:

L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union:

Het doel van de verklaring bovenbeschreven voldoet aan de relevante harmonisatiewetgeving van de Unie:

El objeto de la declaración descrito anteriormente cumple con la legislación de armonización pertinente de la Unión:

entsprechend den folgenden Normen:

in conformity with following standards:

conforme aux norms suivantes:

volgens de volgende normen:

de acuerdo con las siguientes normas:

EN 55022 :2011-12

DIN EN 61000-3-3 VDE 0838-3 :2009-06

DIN EN 55024 VDE 0878-24 :2011-09

DIN EN 61000-4-2 VDE 0847-4 2 :2009-12

DIN EN 61000-4-3 VDE 0847-4-3 :2011-04

DIN EN 61000-4-4 VDE 0847-4-4 :2010-11

DIN EN 61000-4-5 VDE 0847-4-5 :2007-06

DIN EN 61000-4-6 VDE 0847-4-6 :2009-12

DIN EN 61000-4-11 VDE 0847-4-11 :2005-02

DIN EN 61000-6-3 VDE 0839-6-3 :2011-09

DIN EN 61000-6-4 VDE 0839-6-4 :2011-09

Unterzeichnet für und im Namen von:

Signed for and on behalf of: - Signé pour et au nom de: - Ondertekend voor en namens: - Firmado por y en nombre de:

Bosche GmbH & Co.KG**Damme, 20. April 2016**

Damme, 20 April 2016 - Damme 20 Avril 2016 - Damme, 20 April 2016 - Damme, 20 de Abril el año 2016

Bosche, Dr. Jarmila, Geschäftsführer - managing director – manager – gerente