

# DoubleCheck

Talking Commercial Calculator



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## 1: Introduction

DoubleCheck, our commercial calculator with integrated speech output, not only provides the standard arithmetic functions, but also combines numerous other functions in one small and handy device!



**Consult instructions before use!** Do not operate DoubleCheck without reading the instruction manual. Get acquainted with the device and all the accessories. Keep the instruction for reference reading and pass it on with the device.

## 2: Description

The case is long and flat with a shape similar to a remote control. On the surface are various keys, as well as the noticeable, flat display. Put the device in front of you so that the end with the display is furthest away from you.

**Upper Side:** All the keys can be found on the upper side. They are subdivided into 2 groups. The top group consists of 3 rows, each including 3 bigger, rectangular keys, the lower group consists of 4 rows, each including 4 small, square keys.

**Left Side:** On the left side of the device, you can find the socket for an optional power supply (not included).

**Right Side:** On the right side of the device, there are two outlets. The one farther away is a service outlet for our technicians. The one nearer to you is an earphone socket (earphones are also optional and not included).

**Bottom Side:** On the bottom side of the device, you will find four little rubber feet, the loudspeaker grill and the battery compartment.

### 3: Power Supply

**Batteries:** DoubleCheck operates with 2 1.5 Volt AAA batteries. The battery compartment is situated on the bottom side of the device.

To insert the batteries, turn over the device with the display end still furthest away from you. Right between the two upper rubber feet, you can feel a little notch. This is where you can open the battery compartment. Please note, that the lid is **not** completely removable!

Put two 1.5V AAA batteries in the compartment with the flat (negative) end of each battery contacting the coil. Close the lid until it locks in place.

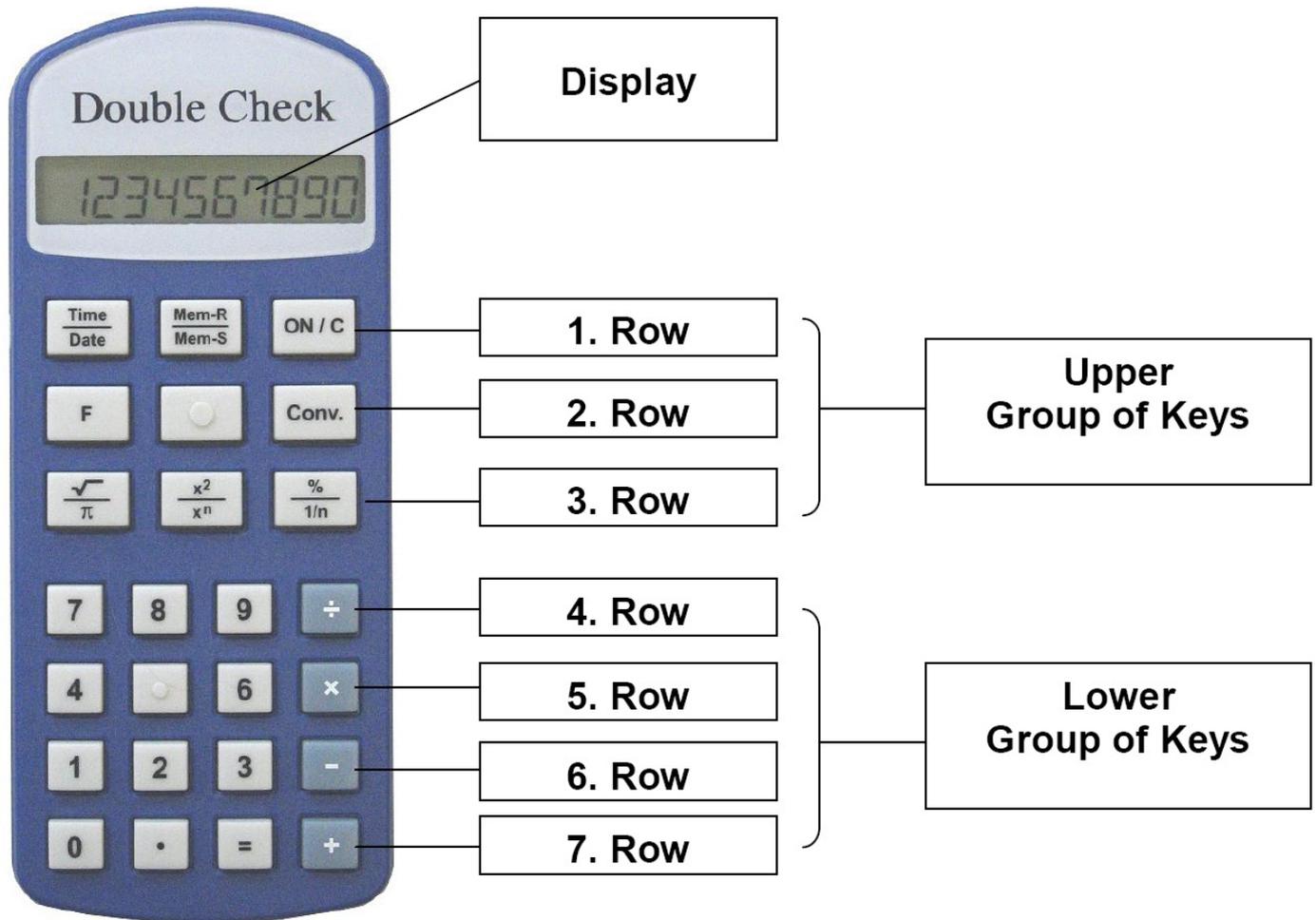


**Caution:** Replace the batteries as soon as the device announces 'battery weak'.

**Power Supply:** DoubleCheck can also be operated with a power supply unit. The power supply unit is not included in the delivery and has to be ordered separately! The socket for the power supply unit is located on the left side of the device

## 4: Keyboard Layout

The keyboard is divided into 2 groups: The upper group, which we call the '3 x 3 group', consists of 3 rows, each including 3 bigger, rectangular keys. The middle key of this group is the Menu-key, which has a tactile dot. Each key of the upper group operates two functions. The lower group, which we call the '4 x 4 group', consists of 4 rows, each including 4 small, square keys. The digit 5 (row 2, column 2) has a little tactile dot. In the following, we will describe each row from the top to down.



### 4.1: 3 x 3 Group (from left to right)

<b>row 1</b>	short = time long = date	short = recall memory long = save value	short = on / delete long = delete last digit
<b>row 2</b>	short = recall formula long = select formula	short = repeat long = menu	short = recall conversion long = select conversion
<b>row 3</b>	short = square root long = Pi	short = squared long = to the power of	short = percent long = reciprocal value

#### 4.2: 4 x 4 Group (from left to right)

<b>row 1</b>	digit 7	digit 8	digit 9	divided by
<b>row 2</b>	digit 4	digit 5	digit 6	times
<b>row 3</b>	digit 1	digit 2	digit 3	minus
<b>row 4</b>	digit 0	short = decimal point long = change sign	equals	plus

#### 4.3: Switch the Device on and off

To switch the device on, press the ON-key (3 x 3 group, top right). The DoubleCheck will automatically switch off after 3 minutes without a keystroke. To switch it off manually, press and hold all 3 keys of the first row in the 3 x 3 group until you hear a short jingle.

#### 4.4: Menu Escape Function

To escape the menu, just press the ON-key (3 x 3 group, top right).

#### 4.5: Delete last Digit / delete all

If you have mistyped a number incorrectly, you can always delete the last digit or the complete number. Press the ON-key short and the complete number will be deleted, press the On-key long and only the last digit will be deleted.

#### 4.6: Keylock

To activate or de-activate the keylock, keep the 0-key and the PLUS-key pressed until you hear a the confirmation (4 x 4 group, row 4, left & right key).

#### 4.7: Volume Control

The volume can be set in 7 levels, including level 0 (mute). To increase the volume press the MENU key (3 x 3 group, row 2, column2) together with either the button left of the Menu-key (decrease volume) or with the button right of the Menu-key (increase volume). DoubleCheck will announce the change of the volume.



**Caution:** The volume level can also be set to 0. DoubleCheck then be silent. The settings will change when power is removed.

#### 4.8: Time and Date

DoubleCheck offers a built-in clock. The time is announced when the TIME/DATE key (3 x 3 group, row 1, left key) is pressed. To hear the date,

press the TIME/DATE key long. The Time and Date are also announced in standby mode, without having to press the ON-key prior to that.

## **4.9: Memory Function**

### **4.9.1: Save Values**

Values can be saved in the memory by a long press of the RCL/STO-key (3 x 3 group, first row, middle key) and a press of a number from 1 to 9. The value is then saved in the chosen slot. (a letter M is shown on the display).

### **4.9.2: Select Stored Values**

A short press of the RCL/STO-key and a press of a number from 1 to 9 will recall the memory, which was saved in this slot.

### **4.9.3: Delete Stored Values**

In order to delete a stored value, you save the value „0“ on this slot. (The letter M will disappear from the display).



**Note:** The memory will be reset when power is removed.

## **4.10: Repeat Function**

By pressing the Menu-key short (3 x 3 group, row 2, column 2) the entire entry will be repeated, even before the operation is finished.

## **5: Arithmetic Procedures**

DoubleCheck offers all standard arithmetic functions, as well as the possibility to calculate percentages, extract square roots or square a given number.

### **5.1: Standard Arithmetic Functions**

The standard arithmetic functions include: to add, to subtract, to multiply and to divide. To accomplish one of those standard functions, just type in the number followed by the function (4 x 4 group, the right column, row 1 to 4) and the second number. To finish the arithmetic procedure, press the Equals-key (4 x 4 group, row 4, column 3). The Equals-key has a short tactile line.

Every value, every result is announced by the speechoutput. To repeat the result of the last calculation, press the Equals-key once again. If you accidentally type in a wrong digit, just press ON-key long (3 x 3 group, row 1, right key) to delete the last value.

## 5.2: Advanced Arithmetic Functions

DoubleCheck also offers the possibility to calculate percentages, extract square roots or square a given number.

### 5.2.1: Percentages

When calculating percentages the following approaches are most common:

Calculation	Example	Input
Percent	How much is 5% of 250?	250 x 5%
Percentage	250 is 5% of how much?	250 / 5%
Surcharges	How much is 250 plus a surcharge of 5%?	250 + 5%
Rebate	How much is 250 minus a rebate of 5 %?	250 – 5%

To calculate for example, how much are 5% of 250, type 250, shortly press the multiplication key (4 x 4 group, row 2, right key) followed by the digit 5. Finish the process by shortly pressing the percent-key (3 x 3 group, row 3, right key). DoubleCheck will then announce the result.

### 5.2.2: Square a Given Number

To square a given number, type in the value and shortly press the squared-key (3 x 3 group, row 3, middle key) followed by the equals key.

### 5.2.3: Extract a Square Root

To extract a square root, type in the number and shortly press the square root key (3 x 3 group, row 3, left key) followed by the equals key.

### 5.2.4: Reciprocal Value

To calculate the reciprocal value, type in a number and press and hold the percent-key (3 x 3 group, row 3, right key) followed by the equals key.

### 5.2.5: To the Power of

Type in a number, press and hold the square-key (3 x 3 group, row 3, middle key) until you hear „to the power of“. Now type in the number needed and finish the calculation by shortly pressing the equals key (4 x 4 group, row 4, column 3).

### 5.2.6: $\Pi$ (Pi)

To calculate with the number Pi, press and hold the square root key (3 x 3 group, row 3, left key).

### 5.2.7: Change Sign

Press and hold the decimal point key (4 x 4 group, row 4, column 2) to change the sign of the value.

### **5.3: Conversions**

The conversion function enables you to quickly calculate many different conversions e.g. how many miles 10 kilometers are.

Press the conversion key (3 x 3 group, row 2, right key) long and you hear the announcement of the conversion which was the last active choice. By shortly pressing the conversion key again, you can now select the measurement unit you would like to work with. You can choose between the following units: currency (from US Dollar to Euro), temperature (from °C to °F), volume (from liters to gallon), length (from kilometers to miles), weight (from kilogram to pound) and customed conversion (for your very own conversion rate).

To choose e.g. 'temperature', press the Menu-key (3 x 3 group, row 2, middle) and DoubleCheck will once again announce the conversion rate. You can now type in the number you like to convert, e.g. 30. To convert this number into degree Fahrenheit, press both the point-key and the equals-key (4 x 4 group, row 4, columns 2 and 3) and DoubleCheck will announce "degrees Celsius equals 86 degrees Fahrenheit". To re-convert this result to degree Celsius, press both the equals-key and the plus-key (4 x 4 group, row 4, columns 3 and 4).

#### **5.3.1: Currency Conversion**

The default exchange rate (Euro to US Dollar) is set to 1.373, but you can easily change this. To do so, choose the function 'currency' and press the Menu-key (3 x 3 group, row 2, middle key) long. Type in the exchange rate you need and confirm by shortly pressing the Menu-key again. DoubleCheck will now use this new exchange rate when converting currencies.

#### **5.3.2: Custom Conversion**

If the default settings do not offer the conversion you are looking for, you can set your individual conversion rate by choosing the function 'custom conversion'. When the function is selected, press the Menu-key (3 x 3 group, row 2, middle key) long and type in the conversion rate you need. Confirm by a short press of the Menu-key. You can now calculate with your individual conversion rate.

## 5.4: Commercial Calculator

As a commercial calculator DoubleCheck also offers formulas to calculate compound interest, net present value or annuities. To activate the formulas, press FIN-key (3 x 3 group, row 2, left key) and select the formula by a short presses of either the right or left key of the same row. Confirm your selection with a long press of the Menu-key (3 x 3 group, row 2, middle key).

### 5.4.1: Compound Interest

This formula helps you to calculate an end capital on the basis of a certain initial capital and a given duration and percentage.

**Example:** You have a certain amount of money (initial capital) on your savings account. You know, that your bank offers you a certain interest rate (percent) and you decide to keep this amount of money on your account for e.g. 5 years (duration). After typing in all this information DoubleCheck will announce how much money you will have on your savings account after those 5 years including the interest given by your bank.

After selecting the formula DoubleCheck asks you to type in the initial capital. Do so and confirm with a short press of the Menu-key (3 x 3 group, row 2, middle key). DoubleCheck repeats the value and asks you to type in the percentage. Do so and confirm again with a short press of the Menu-key. DoubleCheck will repeat the percent and ask you to type the duration. Do so once again and confirm with a short press of the Menu-key. DoubleCheck then will announce the end capital.

### 5.4.2: Net Present Value

This formula helps you to calculate the initial capital on the basis of a certain end capital you wish to have in the near future (including the interest).

**Example:** You know you will need a certain amount of money in the near future (end capital) and you know that your bank offers you a certain interest rate (percent) for a certain duration (for e.g. 5 years). After typing in all this information, DoubleCheck will calculate the net present value. This is the amount of money, you have to invest in order to reach the desired end capital.

After selecting the function, DoubleCheck asks you to type in the end capital you wish to reach. Do so and confirm with a short press of the Menu-key (3 x 3 group, row 2, middle key). DoubleCheck repeats the value and asks you to type in the percentage. Key this in and confirm again with a short press of the Menu-key. DoubleCheck will repeat the percentage and ask you to type in the duration. Key this in and once again confirm with a short press of the Menu-key. DoubleCheck will announce the net present value.

### 5.4.3: Annuity

The term annuity is used in finance theory to refer to any terminating stream of regular payments over a specified period of time.

**Example:** You need a credit from your bank (initial capital), where you pay a percentage of interest (percent) over a certain (fe. 20 years or 240 months) time (duration) DoubleCheck will calculate the monthly installments you have to pay in order to repay the credit.

After selecting the function, DoubleCheck asks you to type in the initial capital. Key this in and confirm with a short press of the Menu-key (3 x 3 group, row 2, middle key). DoubleCheck repeats the value and asks you to type in the percentage. Input this and confirm again with a short press of the Menu-key. DoubleCheck will repeat the percent and ask you to type in the duration. Do so once again and confirm with a short press of the Menu-key. DoubleCheck will then announce the regular payment due.

### 5.4.4: Annuity Initial Capital

This formula offers you the vice versa calculation, that means, you can find out which credit amount you could afford.

**Example:** You know how much money you could afford each month to pay installments (annuity). You know the conditions of your bank, that is the interest rate (percent) as well as the time (duration). After typing in all this information, DoubleCheck will calculate the credit you could afford to pay back with the amount monthly available.

After selecting the function, DoubleCheck asks you to type in the annuity. Do so and confirm with a short press of the Menu-key (3 x 3 group, row 2, middle key). DoubleCheck repeats the value and asks you to type in the percentage. Input this and confirm again with a short press of the Menu-key. DoubleCheck will repeat the percentage and ask you to type in the duration. Do so once more and confirm with a short press of the Menu-key. DoubleCheck then will announce the initial capital.

## 6: Help Mode

Pressing the keys FIN and CONV (3 x 3 group, row 2, left and right key) at the same time activates the help mode. Pressing each key gives you a short information about this. By pressing FIN and CONV again you leave the help mode. On Versions without backlit display the Help can be activated with the Light-key (auxiliary key, row 1)

## **7: Menu**

Here you can set date, time and an alarm, as well as the number announcement format or the decimal places. To enter the menu, press the Menu-key (3 x 3 group, row 2, middle key) long until you hear the announcement of a menu function. You can now browse forward through the menu with a short press of the CONV-key (backwards with FIN-Key). A short press on the Menu-key will give you the status of the selected function. With one short press of the CONV-Key you will come to the first function, the Number Announcement Format.

### **7.1: Number Announcement Format**

The results can be announced as an entire number (e.g. “Threehundredfive”) or in individual units (e.g. “Three” – “Zero” – “Five”) Select the function with a long press of the Menu-key, Choose the announcement format – “entire number” or “individual units” with the FIN or CONV-key – and confirm by pressing the menu key again.

### **7.2: Alarm**

DoubleCheck XL offers one alarm with up to 10 different jingles. To set the alarm, select the function as described above. First you can activate or deactivate the alarm, which you have to confirm with a short press on the MENU-key. If you deactivate the alarm and confirm this, you will automatically exit the Menu. Following the activation you have to set the other items (hour, minutes and jingle) and confirm each setting individually. When completed you will hear the full settings.

### **7.3: Time**

To set the correct time, select the menu function Time. Change the settings (hour and minutes individually) with a short press of the FIN or CONV-key (3 x 3 group, row 2, left or right key) and confirm each setting by a short press of the Menu-key again.

### **7.4: Date**

To set the correct date, select the menu function Date. Change the settings (Day, month and year individually) with a short press of the FIN or CONV-key (3 x 3 group, row 2, left or right key ) and confirm each setting by a short press of the Menu-key again.

### **7.5: Rounding**

DoubleCheck XL offers you the possibility to round a number. This can be helpful when using big values (e.g. in the millions), as DoubleCheck XL will then automatically round the value and not announce the entire numbers to the last digit. The default setting is always the highest possible (= 10).

To change this value, select the menu function and set the preferred number by using the FIN or CONV-key (3 x 3 group, row 2, left or right key). Confirm the setting by pressing the Menu- key again.

## 7.6: Decimal Places

DoubleCheck XL offers the possibility to set the decimal places announced after the comma. The default setting is always the highest possible (= 9 units after the comma).

To change this value, select the menu function and set the preferred number by using the FIN or CONV-key (3 x 3 group, row 2, left or right key). Confirm the setting by pressing the Menu- key again.

## 8: Safety Instructions

Do not expose the device to extreme humidity, heat, cold, dust or dirt.

When exposed to splash water, wipe the device off. If water enters the device, remove the batteries and make sure the device is dry.

When not using the device for a longer period, remove the batteries, so they can not damage the device by leaking.

Make sure the batteries are inserted in the correct way.

## 9: Cleaning the Device

To clean the device, use a lightly moistened cloth only!



**CAUTION:** No liquid should enter the device! Avoid strong acid or scrubbing cleansers. Do not scrub the surface with rough sponges, as they could damage the case of the device.

## 10: Technical Data

<b>Dimensions:</b>	Length: 150 mm (5.9 inches) Width: 60 mm (2.6 inches) Height: 12 to 20 mm (0.4 to 0.8 inches)
<b>Weight:</b>	130 g (0.29 pounds) including batteries
<b>Power Supply:</b>	2 x 1.5 V AAA micro batteries optional: power supply ( <b>not</b> included in delivery!)
<b>Included in Delivery:</b>	DoubleCheck 2 x 1.5V AAA batteries printed user's manual <b>optional:</b> power supply unit

## 11: Guarantee and Service

From date of purchase, we issue the following term of guarantee: twenty four (24) months on the device itself, twelve (12) months on accessories (e.g. power supply units, earphones etc.), six (6) months on wearing parts (e.g. rechargeable batteries, hand cuffs, battery lids etc.), no guarantee on external data mediums (e.g. CDs, memory cards etc.) and batteries.

Under this guarantee, CareTec shall repair a unit that is found to be defective, free of charge, or, at its option, replace it by a reconditioned one. In no event shall CareTec be liable for indirect, special or consequential damages. The exposure of the device to liquids, strong electromagnetic fields, moisture, and heat, as well as a dropping of the device, or an opening of the case itself, causes a loss of guarantee. In case of problems please contact CareTec or your local distributor before returning the device without any apparent reason. We will then inform you about the necessary procedures. The device may only be opened by authorized technicians! CareTec reserves the right to make changes and improvements to its products without further notice.

## 12: Disposal

### 12.1: Disposal of Electronic Devices



This product must be disposed of separately from household waste at specially designated collection and recycling points.

### 12.2: Battery Disposal



Please dispose used batteries only at specially designated collection points, never through regular house garbage!

Pb-Cd-Hg These signs can be found on contaminant-laden batteries.

Pb = containing lead, Cd = containing cadmium, Hg = containing mercury

## 13: Symbols used



Caution.



Additional information.



Must be disposed off separately from household waste.



Manufactured by.

## 14: Manufacturer



CareTec International GmbH  
Stubenbastei 1, A-1010 Wien, Austria  
Phone (+43 1) 513 80 81 0  
Fax (+43 1) 513 80 81 9  
E-mail: [office@CareTec.at](mailto:office@CareTec.at)  
Web: [www.CareTec.at](http://www.CareTec.at)

DoubleCheck 11/2011 