

**Out-of-Warranty Service**

If the calculator fails to operate satisfactorily beyond the one-year warranty period, Rockwell Customer Service Centers will repair and return the calculator to you at our prevailing service rates.

**ROCKWELL CUSTOMER SERVICE CENTERS**

**United States**

847 Jerusalem Road Scotch Plains, NJ 07076	2016 Big Bend Blvd. Richmond Heights, MO 63117
P.O. Box 47147 3550 McCall Place Atlanta, GA 30340	Post Office Drawer 5077 950 DeGuigne Dr. Sunnyvale, CA 94088

**Canada**

90 Thorncliffe Park Dr.  
Toronto, Ontario,  
Canada M48-1M5

**WARRANTY OUTSIDE  
USA AND CANADA**

For warranty outside of USA and Canada see the enclosed warranty card, or ask your distributor/ dealer for warranty information.

**Service Available Outside USA and Canada**

**British Isles**

Sumlock Anita, Ltd. Service Centers are located throughout the British Isles. Consult your local telephone directory for your nearest center.

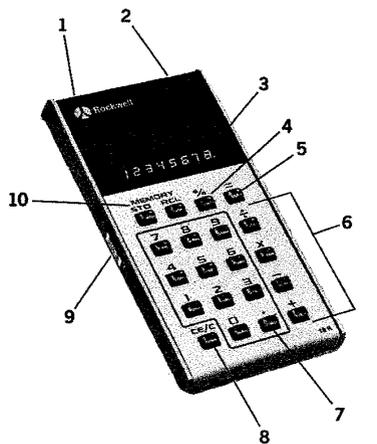
**France and Germany**

Rockwell — HWT, S.A. Paris, France	Rockwell International, G.m.b.H. Frankfurt, Germany
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**Other Countries**

Contact your dealer or distributor.





1. AC jack (for optional AC adapter)
2. Battery compartment (door on back side)
3. Eight-digit display
4. Percent key
5. Equals key
6. Arithmetic function keys
7. Decimal key
8. Clear entry/clear key
9. On-Off switch
10. Memory keys

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## GENERAL INFORMATION

### Battery Installation

Your calculator requires a 9-volt rectangular battery for its power. Remove the battery access door by sliding the latch toward the outside of the calculator. Snap the battery clips onto the battery. Place the battery in the calculator with the bottom toward the door latch.

### Battery Replacement

When the battery approaches the end of its useful life (See the Service Tip on page 4), replace it with a new standard 9-volt transistor radio battery; e.g., Panasonic 006P, Eveready 216, or equivalent.

### Operation on Alternating Current (AC)

Your calculator may also be operated from regular household or office power with an AC adapter, either Rockwell Model 105R for 110V or Model 106R for 110/220V. The AC adapter can be used with or without a battery installed in the calculator. If the AC adapter is plugged into the calculator, it must also be plugged into an electrical outlet or the calculator will not work.

### Accessories

The above adapters and a carrying case, Model 205R, are available at your dealer or any Rockwell Customer Service Center.

**CAUTION:** To avoid possible damage to

your calculator, use Rockwell AC adapter only.

#### **Service Tip**

Your calculator is designed and manufactured to give you reliability and trouble-free service. Consequently, very few of our calculators are returned for repairs. Most of those returned are found to be due to battery problems. Therefore, to avoid the inconvenience of returning your calculator and being without it needlessly, we suggest you **DO THE FOLLOWING BEFORE YOU SEND IT TO US FOR SERVICE:**

1. Try a new, fresh battery in your calculator.
2. If you have a Rockwell AC adapter, try operating your calculator with it. Be sure the AC adapter is plugged into an AC outlet. If the calculator functions correctly, your battery is probably dead and should be replaced.
3. Check the battery connector to be sure it is "snapped" securely onto the battery terminal.

If, after following the above suggestions, your calculator does not function correctly please return it to your nearest Rockwell Customer Service Center. Refer to the Consumer Warranty in the back of this manual.

## **OPERATION**

### **ON/OFF SWITCH**

Turning the calculator on automatically clears the calculator to zero. The calculator is then ready for use in solving problems.

### **DISPLAY**

Your calculator will accept and display the following numbers.

1. Any positive number between 0.0000001 and 99,999,999.
2. Any negative number between -0.0000001 and -9,999,999.

Results in excess of 8 digits for positive numbers and 7 digits for negative numbers are indicated by an Overflow Indicator (8 decimal points): 1.2.3.4.5.6.7.8., for example. (In this circumstance, all keys become inoperative except the clear key [CE/C]. See Clear Operations and Overflow Conditions).

A negative number is indicated by a minus sign before the left-most digit in the display: -456.23 for example.

### **NUMBER AND DECIMAL POINT ENTRY**

Pressing any number entry key enters that digit into the calculator and causes it to appear on the display. Turn your calculator on and depress the 2 and 4 keys. The

display shows the following:

Keyboard Entry	Display
2	2.
4	24.

When you want to enter a decimal number, depress the  $\square$  key following the number after which you want the decimal point located.

To enter 1.6:

Keyboard Entry	Display
$\square$	0.
1	1.
$\square$	1.
6	1.6

#### ARITHMETIC OPERATIONS

The arithmetic function keys,  $\square$ ,  $\square$ ,  $\square$ , and  $\square$ , enter the desired arithmetic operation to be performed. The answer to such an operation is obtained by depressing one of the answer keys,  $\square$  or  $\square$ , or by another depression of an arithmetic function key. Because this calculator has a **FLOATING DECIMAL**, it automatically places the decimal point in the correct position in your answers.

#### BASIC CALCULATIONS

Your Rockwell 18R performs arithmetic calculations with algebraic logic. This means your calculator works the same way you think or write a problem.

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Notice that the display shows each new numerical entry as you depress the number entry keys and the result of the previous arithmetic calculation when you depress an arithmetic function key.

#### Addition and Subtraction

Keyboard Entry	Display
$\square$	0.
5	5.
$\square$	5.
4	4.
$\square$	9.
3	3.
$\square$	6.

#### Multiplication and Division

Keyboard Entry	Display
7	7.
$\square$	7.
9	9.
$\square$	63.
6	6.
$\square$	10.5

#### MIXED (CHAIN) CALCULATIONS

Addition, subtraction, multiplication, and division operations may be intermixed, or chained, as shown below:

$$\frac{(5 + 6) 7 - 8}{9} = 7.6666666$$

Keyboard Entry	Display
5	5.

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$\boxed{+}$ 6	6.
$\boxed{\times}$	11.
7	7.
$\boxed{-}$	77.
8	8.
$\boxed{\div}$	69.
9	9.
$\boxed{=}$	7.666666

#### REPEAT OPERATIONS

The repeat operation capability of your Rockwell 18R is a convenient feature that enables you to add, subtract, multiply or divide a series of identical numbers without re-entering the numbers each time.

For example, grocery items with values of  $1.69 + 2.98 + 2.98 + 2.98 + 0.49 = 11.12$  would be added as follows:

Keyboard Entry	Display
1.69	1.69
$\boxed{+}$ 2.98	2.98
$\boxed{+}$	4.67
$\boxed{+}$	7.65
$\boxed{+}$	10.63
.49	0.49
$\boxed{=}$	11.12

#### AUTOMATIC CONSTANT

The automatic constant is another time-saving feature. This feature enables you to add, subtract, multiply or divide by the same number repeatedly without re-entering the number for each new calculation. The

number entered after the last arithmetic function key depressed is always saved as the constant (addend, subtrahend, multiplier, or divisor). The constant function is the last arithmetic function key depressed before depressing the  $\boxed{=}$  key. To perform multiple operations with the saved constant, enter a new augend, minuend, multiplicand or dividend, and depress the  $\boxed{=}$  key for an answer.

For example, to increase a recipe which normally serves four people to serve seven, multiply each item in the recipe by  $7/4$  or 1.75, as follows:

6 cups flour  $\times$  1.75 = 10.5 cups flour  
 1.5 tps salt  $\times$  1.75 = 2.625 tsp salt  
 2 cups milk  $\times$  1.75 = 3.5 cups milk

Keyboard Entry	Display
6	6.
$\boxed{\times}$ 1.75	1.75
$\boxed{=}$	10.5
1.5	1.5
$\boxed{=}$	2.625
2	2.
$\boxed{=}$	3.5

In all instances, the constant is retained until a different number is entered after an arithmetic function key is depressed.

#### PERCENTAGE OPERATIONS

The percent key,  $\boxed{\%}$ , operates just like the equal key,  $\boxed{=}$ , when multiplying and dividing except that it causes the answer to be divided by 100 for multiplication, and multiplied by 100 for division.

For example, to calculate 1.5% monthly charge on a department store account balance of \$340.00, make the following entries:

Keyboard Entry	Display
340	340.
$\times$ 1.5	1.5
$\%$	5.1

As another example, suppose you have answered 57 of 65 examination questions correctly. What is your percentage of correct answers?

Keyboard Entry	Display
57	57.
$\div$ 65	65.
$\%$	87.6923

When used with the  $\pm$  or  $\mp$  keys, the  $\%$  key performs ADD-ON and DISCOUNT calculations automatically. This capability is another time-saving feature when you want to add or subtract a percentage of a number to that number.

To perform an add-on or discount operation, enter the number which you want to add on or discount, depress the  $\pm$  key for add on or the  $\mp$  key for discount, enter the desired percentage, depress the  $\%$  key to display the amount of add-on or discount, and press the  $\mp$  key to display the result.

Add-on and discount operations can be

chained if desired. For example, if a \$20.00 item is discounted by 15% and a 6% sales tax is added, what is the total cost?

Keyboard Entry	Display	Comments
20.00	20.00	
$\mp$ 15	15.	
$\%$	3.	Discount
$\pm$	17.00	Discounted Amount
6	6.	
$\%$	1.02	Sales tax
$\mp$	18.02	Total cost

#### MEMORY OPERATIONS

Your Rockwell 18R has a completely independent storage memory which is unaffected by arithmetic operations. This feature permits you to store the displayed number and then recall it to the display when desired for subsequent operations. The functions of the memory operation keys,  $\text{STO}$  and  $\text{RCL}$ , are as follows:

Key	Function
$\text{STO}$	Depression of the $\text{STO}$ key automatically clears the memory and enters (stores) the displayed number in the memory. Neither the displayed number nor any arithmetic operation is affected.
$\text{RCL}$	Depression of the $\text{RCL}$ key causes the number stored in the memory to be displayed. The memory is not cleared by this operation.

tion. The "recalled" number may be used as a number entry for the next arithmetic operation.

The memory in your 18R calculator is a time-saving feature that allows you to calculate answers to everyday problems without the need of paper and pencil. The following example illustrates how this unique memory can be used for grocery shopping. You are able to determine the better buy between competing products, calculate sales tax, and still retain the total of your shopping expenditures.

The total price, including sales tax, of the following grocery items may be calculated as shown below.

Mayonnaise	\$1.29	
8 cans cat food	.25 ea + 6% tax	
Vinegar	.59	
Cereal: Box A: 10 ozs at 64¢		Determine the
Box B: 13 ozs at 73¢		better buy.
Peanut Butter	1.19	
TOTAL:	\$5.92	

**NOTE:** To determine the better buy of two choices, divide the price of Box A by the ounces contained in it, then multiply this price per ounce by the ounces contained in Box B. The result is the price of Box B if the cost per ounce was the same as Box A.

Keyboard Entry	Display	Comments
1.29	1.29	

STO	1.29	
.25	0.25	
X 8	8.	
+	2.	
6	6.	
%	0.12	Sales tax
+	2.12	
RCL	1.29	
+	3.41	
.59	.59	
=	4.00	
STO	4.00	
64	0.64	
÷	0.64	
10	10.	
X	0.064	Price per oz. See above note.
13	13.	
=	0.832	Price for 13 ozs at the price per ounce for a 10 oz. box. Since the store price of the 13 oz. box is 73¢, it is the better buy.
.73	0.73	
+	0.73	
RCL	4.00	
+	4.73	
1.19	1.19	
=	5.92	Total cost.

#### CLEAR OPERATIONS

The clear key, **CE/C**, performs three functions:

1. Clears calculator. Depress the **CE/C**.

key twice to clear the calculator (except the memory).

2. Corrects wrong number entry. Depress the  $\overline{CE/C}$  key once to clear just the latest number entry. Then make a correct entry and go on with your calculation.
3. Cancels overflow condition. To cancel an overflow condition (all decimal points lit); depress the  $\overline{CE/C}$  key twice.

#### OVERFLOW CONDITIONS

The following operations result in an overflow condition which causes the Overflow Indicator to light and all keys except  $\overline{CE/C}$  to become inoperative.

1. Any positive answer or subtotal exceeding 8 digits (greater than 99,999,999.) to the left of the decimal point.
2. Any negative answer or subtotal exceeding 7 digits (less than -9,999,999.) to the left of the decimal point.
3. Division by zero. Zeros and decimal points are displayed.

#### RECOVERY TECHNIQUES

If you unintentionally depress an arithmetic function key, the following techniques allow easy correction without loss of the displayed number.

Unintentional  $\overline{\times}$  or  $\overline{\div}$ : Depress 1, then the correct arithmetic function key.

Unintentional  $\overline{+}$  or  $\overline{-}$ : Depress 0, then the correct arithmetic function key.

## FULL ONE-YEAR WARRANTY

(U.S.A. and Canada)

Rockwell International Corporation  
Electronic Calculator

The following warranty has been drafted to comply with the new Federal law applicable to products manufactured after July 4, 1975.

Rockwell International Corporation warrants this electronic calculator and accessories (excluding any nonrechargeable battery) against defects in materials and workmanship and operating malfunctions for a period of one year from the date of retail purchase. This warranty is for the benefit of the original retail purchaser and any subsequent transferee during the warranty period.

In case of a defect, malfunction, or other failure to conform to the above warranty, Rockwell will, at its option, repair or replace the calculator without charge within a reasonable time after its receipt by our service center. The time required for repairs will be added to the warranty period.

For service under this warranty, simply return the calculator prepaid within the warranty period to the nearest Rockwell Customer Service Center listed below. You must also include a copy of the sales receipt or other proof of purchase date. Calculators returned without proof of purchase date will be serviced out-of-warranty at our prevailing service rates.

#### Exclusions and Limitations

This warranty does not extend to any damage or malfunction resulting from misuse, neglect or accident. The remedies described above are the exclusive remedies under this warranty or any implied warranty, and IN NO EVENT SHALL ROCKWELL BE LIABLE FOR CONSEQUENTIAL DAMAGES.