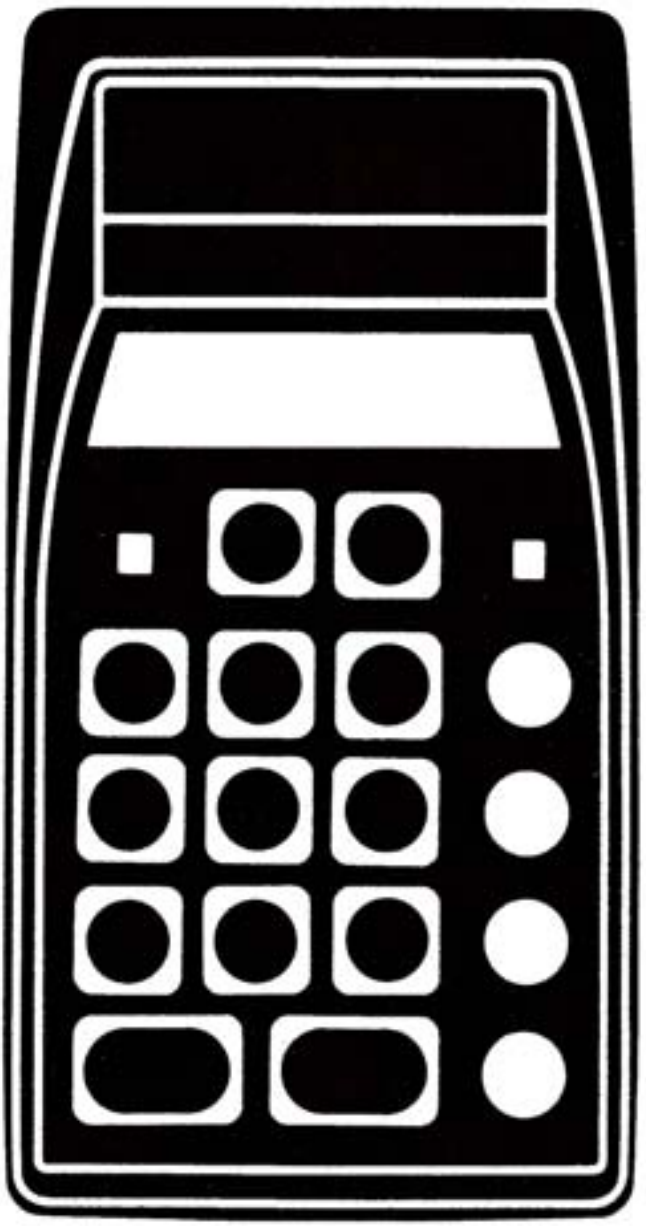
THE ANSWER 2



BOWMAR

INTRODUCTION

Your Bowmar Answer 2 is light enough and small enough to be used in one hand, but it provides a standard keyboard and a light emitting diode (LED) display that is easily read at home or in the office.

The eight digit display and the full floating decimal allow the calculation of any problem without sacrificing accuracy.

Whether you want to solve engineering or budget problems, your calculator has the ability with features such as clear entry, automatic squaring, and a manual constant register that will perform integer powers, reciprocals and fractions as well as chain and mixed calculations.

The battery will recharge in seven hours and operate the calculator for three, but with the charger/power supply no useful time will be lost since it operates the calculator while charging it.

We suggest that this programmed Instruction Manual be read with the calculator in hand. Performing the operations as you read them will increase your familiarity with them. For a quick reference, an outline of operations is on the back of the calculator.

OPERATION

AC Operation:

Connect the Charger unit to any standard 120 Volt electrical outlet and plug the connector into the Calculator. After the above connections, the power switch may be turned on and operation started. (While connected to AC, the internal batteries are automatically charged whether the power switch is "ON" or "OFF".)

Battery Operation:

Disconnect the Charger cord and turn the power switch "ON". With normal use a full battery charge can be expected to supply about 3 hours of working time.

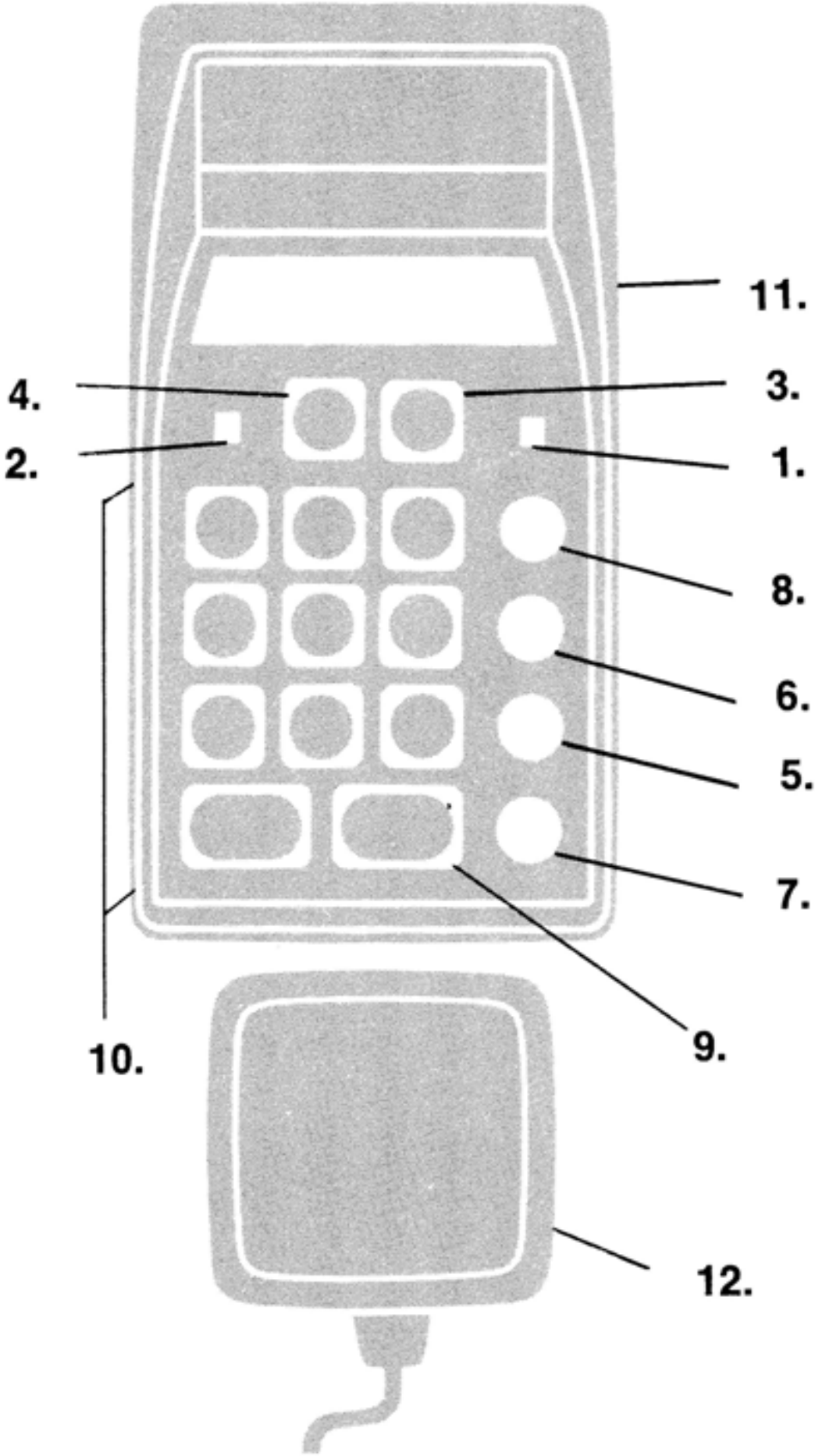
NOTE: When the low battery indicator (L) on the display is lighted, do not continue battery operation. This indicates need for a battery charge.

Battery Charging:

Simply follow the same procedure as in AC operation. The Calculator may be used during the charge period if desired. In order to fully charge a battery which has been completely discharged, 7 hours is required. In most cases, an overnight charge should be adequate if the batteries have not been fully discharged.

NOTE: Although no damage will result from prolonged periods with the Charger connected, it is advisable to remove the Charger cord when the Calculator is not in use after a full recharge cycle.

CAUTION: To avoid possible damage, use only the charger provided with the calculator.


11.
4.
3.
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10.
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12.

CONTROLS & INDICATORS

1.	"ON" Switch	Turns Calculator "ON" & "OFF".
2.	"K" Switch	Slide switch with 2 positions; in the up position, the 'K' operation is in effect. Use of 'K' allows a number to be entered and retained as a "constant" for series multiplication or division.
3.	C Key	Clears the Calculator and the display of all numbers.
4.	CE Key	Clears display of the previous keyboard entry.
5.	× Key	Enters a "multiply" command.
6.	÷ Key	Enters a "divide" command.
7.	+= Key	Adds the entered number, or carries out a previously entered "multiply" or "divide" command.
8.	−= Key	Adds a minus sign to an entry. Subtracts the entered number or completes a previously entered "multiply" or "divide" command.
9.	• Key	Enters a decimal point.
10.	0 - 9 Keys	Enter digits of a number (limit 8 digits).
11.		Charger cord socket.
12.		Charger/Power Supply.

Overflow Indicator	Indicates a calculation result that contains more than eight digits. Appears as 
Low Battery Indicator	Warns of need for battery charge during battery operation. Appears as 
Minus Sign Indicator	Activated by the +/- key for operations with negative numbers. Appears as 
Decimal Point Indicator	Automatically appears to the right of any number entered, unless inserted in another sequence by use of the Decimal key. With fractional numbers, it will be preceded by a zero.
Error Indicator	Indicates an entry of more than 8 digits. Appears as 

BATTERY NOTES

1. With normal use at room temperature, a full battery charge can be expected to supply about 3 hours of accumulated working time.
2. The Calculator may be used while its battery is charging.
3. Batteries that have been neither used nor charged for as long as 2 or 3 months will suffer substantial loss of operating time through a tendency to self-discharge. As a general rule, batteries lose about 1% charge per day due to self-discharge, at normal temperatures.
4. For optimum performance and long life:
   a. Alternate frequently between Battery and AC power.
   b. Operate at or near normal room temperatures.
   c. Charge as soon as possible upon appearance of the Low-Battery indicator.
5. Recharge time is 7 hours for a fully discharged battery.
6. The Low-Battery indicator is designed to appear as soon as battery voltage drops to the lowest value that will support optimum performance of the Calculator. Should further discharge occur, through continued operations or self-discharge, the Low-Battery indicator may fail to appear. Do not continue to operate on batteries when this condition is noted, or a damaged battery may result.
7. As a general rule, if improper operation occurs, first try the Calculator with its charger connected. If operation is then normal, this indicates the batteries are low.
8. Do not store the unit in high temperature areas such as the top of radiators or the rear deck of automobiles exposed to the sun. The Calculator will operate satisfactorily over an ambient temperature range of 0 to 50C (32 to 122F) and relative humidity to 95%.

INSTRUCTIONS

1. To clear (erase)

A. Touch the C key

B. Cleared display will be:

2. To enter (write a number)

Example: enter *123.45*

A. First, clear by touching C

B. Then touch number and decimal keys for *123.45* one at a time. Always start with the left hand digit and progress from left to right.
Display will then be:

3. To clear an incorrect entry

Example: 48+ 12 is your calculation

A. You have already entered 48
Display is:

B. You now touch the += key
Display will be:

C. Then you enter *13* by mistake
The display is:

A mistake!

D. To clear *13*, touch the CE key
Display will be:

E. Then enter '12'
Display will be:

F. Finally, touch the += key for answer
Display will be:

Note: Use CE during, or immediately after entry of a number.

CALCULATIONS

1. ADDITION

Example #1: To calculate 16.39 + 9.83 =

Do these steps		display will be
a. Touch C		0.
b. Enter *16.39*		16.39
c. Touch +=		16.39
d. Enter *9.83*		9.83
e. Touch +=	Answer	26.22

Example #2:
To calculate 16 + 9 + 8.3 + 4.1 =

Do these steps		display will be
a. Touch C		0.
b. Enter *16*		16.
c. Touch +=		16.
d. Enter *9*		9.
e. Touch +=		25.
f. Enter *8.3*		8.3
g. Touch +=		33.3
h. Enter *4.1*		4.1
i. Touch +=	Answer	37.4

2. SUBTRACTION

Example #1: To calculate 12.81 − 3.6 =

Do these steps		display will be
a. Touch C		0.
b. Enter *12.81*		12.81
c. Touch +/=		12.81
d. Enter *3.6*		3.6
e. Touch −/=	Answer	9.21

Example #2: To calculate 23 − 6 + 2.1 − 5 =

Do these steps		display will be
a. Touch C		0.
b. Enter *23*		23.
c. Touch +/=		23.
d. Enter *6*		6.
e. Touch −/=		17.
f. Enter *2.1*		2.1
g. Touch +/=		19.1
h. Enter *5*		5.
i. Touch −/=	Answer	14.1

Example #3:
To calculate 62 − 82 + 10 − 40 =

Do these steps		display will be
a. Touch C		0.
b. Enter *62*		62.
c. Touch +/=		62.
d. Enter *82*		82.
e. Touch −/=		−20.
f. Enter *10*		10.
g. Touch +/=		−10.
h. Enter *40*		40.
i. Touch −/=	Answer	−50.

3. MULTIPLICATION

Example #1: To calculate 29.32 x 56.5 =

Do these steps		display will be
a. Touch C		0.
b. Enter *29.32*		29.32
c. Touch X		29.32
d. Enter *56.5*		56.5
e. Touch +/=	Answer	1656.58

Example #2: To calculate 3 x 21 x 6.1 =

Do these steps		display will be
a. Touch C		0.
b. Enter *3*		3.
c. Touch X		3.
d. Enter *21*		21.
e. Touch X		63.
f. Enter *6.1*		6.1
g. Touch +=	Answer	384.3

Example #3: To calculate 31 x 6 =
Use of 'K' Switch 31 x 8.2 =
31 x 7.6 =

Do these steps		display will be
a. Touch C		0.
b. Push 'K' on (up)		0.
c. Enter *31*		31.
d. Touch X		31.
e. Enter *6*		6.
f. Touch +=	1st Answer	186.
g. Enter *8.2*		8.2

h. Touch [+=] 2nd Answer 254.2

i. Enter *7.6* 7.6

j. Touch [+=] 3rd Answer 235.6

k. Push 'K' off (down)

4. DIVISION

Example #1: To calculate 376 ÷ 53 =

Do these steps — display will be

a. Touch [C] 0.

b. Enter *376* 376.

c. Touch [÷] 376.

d. Enter *53* 53.

e. Touch [+=] Answer 7.0943396

Example #2: To calculate 81 ÷ 3 ÷ 9 =

Do these steps — display will be

a. Touch [C] 0.

b. Enter *81* 81.

c. Touch [÷] 81.

d. Enter *3* 3.

e. Touch ÷ — 27.

f. Enter *9* — 9.

g. Touch += Answer — 3.

Example #3: To calculate 181 ÷ 15 =
96 ÷ 15 =
117 ÷ 15 =
Use of 'K' switch

Do these steps		display will be
a. Touch C		0.
b. Push 'K' on (up)		0.
c. Enter *181*		181.
d. Touch ÷		181.
e. Enter *15*		15.
f. Touch +=	1st Answer	12.066666
g. Enter *96*		96.
h. Touch +=	2nd Answer	6.4
i. Enter *117*		117.
j. Touch +=	3rd Answer	7.8
k. Push 'K' off (down)		

5. MIXED ARITHMETIC

Example #1: To calculate 23 x (−4) ÷ (−6) =

Do these steps		display will be
a. Touch C		0.
b. Enter *23*		23.
c. Touch X		23.
d. Enter *4*		4.
e. Touch −=		— 92.
f. Touch ÷		— 92.
g. Enter *6*		6.
h. Touch −=	Answer	15.333333

Example #2:
To calculate $\dfrac{(9 + 6 - 5) \times 8}{20} - 8 =$

Do these steps	display will be
a. Touch C	0.
b. Enter *9*	9.
c. Touch +=	9.
d. Enter *6*	6.
e. Touch +=	15.
f. Enter *5*	5.

g. Touch −= 

h. Touch × 

i. Enter *8* 

j. Touch ÷ 

k. Enter *20* 

l. Touch += 

m. Enter *8* 

n. Touch −= Answer 

6. EXPONENTS

Example #1: To calculate $(3)^5 =$

Do these steps — display will be

a. Touch C 

b. Push 'K' on (up) 

c. Enter *3* 

d. Touch × 

e. Enter *3* 

f. Touch += 

g. Touch += 

h. Touch += 

i. Touch [+=] Answer 243.

j. Push 'K' off (down)

7. OVERFLOW INTERPRETATION

The overflow indicator "□" will appear when the display capacity of the Calculator is exceeded.
For example, multiplication of
12345678 × 345678
will give the following display

□ 42676.292

The "□" symbol indicates "overflow", or an answer of more than the 8 digits shown. To obtain the correct decimal location, simply record the displayed number and move the decimal point 8 places to the right. The real answer will then be:

4,267,629,200,000.
└ 8 places ┘

This procedure applies to all operations, multiplication, division, addition and subtraction. Use the 'C' key to clear the overflow.

SPECIFICATIONS

Decimal Point:	Full floating decimal point.
Capacity:	Addition, subtraction, multiplication, division and K register: 8 digits in /16 digits out with underflow.
Functions:	General add, subtract, multiply and divide. Chain multiplication and division. Mixed arithmetic. Constant multiplication and division. Exponents, fractions, reciprocals.
Power:	A.C. operation—110/120V, 60 Hz. Battery operation—NiCd Batteries (3) 3 hour operation 7 hour charge.
Main Elements:	Large scale integrated circuit.
Supplementary Elements:	Mos ICs, Transistors, Diodes.
Dimensions:	Height 1¼", Width 3", Depth 5¾".
Weight:	9 oz.
Peripherals:	Charger/Power Supply, Vinyl Pouch, Programmed Instruction Book.

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WARRANTY

Bowmar/ALI, Inc. warrants to the purchaser of this new Bowmar Calculator that if the machine or any part thereof in the judgment of Bowmar is proven to be defective in material or workmanship within one year from date of original purchase, such defects will be repaired or replaced (at the Company's option) free of charge for parts and labor.

This warranty does not apply to any product which has been damaged by accident or which has been misused, abused, altered, or repaired by anyone other than Bowmar.

This warranty is in lieu of all other warranties expressed or implied, and no person is authorized to assume for Bowmar any other liability in connection with the sale of this product.

To obtain repairs, the Calculator should be delivered, prepaid, to Bowmar/ALI, Inc. at address shown below. In-warranty units will be returned postage prepaid.

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