

# ELECTRONIC CALCULATOR INSTRUCTION BOOKLET

# Bohn Instant

BOHN REX-ROTARY DIVISION OF VLN CORP.

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### IMPORTANT NOTE

I. Please make certain the constant key "K" is in the "off" position before performing calculations on the following pages.

I.Whenever your unit appears to be giving incorrect calculations always check the following possibilities;

A) If using "AC" power, make certain "K" key is in the "off" position B) If using "BAT" power, make certain:

1. "K" key is in the "off" position

2. Check batteries by following instructions on page 9, "BATTERY LOW INDICATION"

#### THE BOHN CALCULATOR

Designed with "SPACE AGE" Electronic Components, it performs a wide range of simplified operational functions instantly.

The examples noted herein will illustrate the ease of operation of this noiseless unit. Performing these easy to follow examples will demonstrate the efficiency of this dual purpose calculator (desk and portable) and quickly build your confidence in its many uses.

#### KEYBOARD AND DISPLAY



- 1. Display Panel (8 digits maximum with decimal point).
- 2. ON-OFF switch.
- 3. Clear Key: Clears entire machine.
- 4. Subtraction/Total Key.
- 5. Divide Key.
- 6. Multiplication Key.
- 7. Addition/Total Key.
- 8. Numeric Entry Keyboard with decimal point.
- 9. Constant Key. (K)
- 10. Clear Entry Key: Clears only the last entry put into Display.
- 11. Power source switch, Battery or AC (Electric).
- Negative or minus sign (referred to as NEG in instructions)
- 13. Overflow signal (referred to as OVF in instructions)
- 14. Power Cord/socket.

#### SPECIFICATIONS

Functions:

Addition

· Multiplication, Division, Addition and subtraction by a constant

- Subtraction
- Mixed Calculations
  - ulations True credit balance
- Multiplication
  Characteristics
  - Chain Multiplication
- Division
   Chain Division
- Raising to a power Algebraic Logic

Capacity:

Addition & Subtraction Results	8 digits
Product:	8 digits
Quotient:	8 digits
Storage Register (Constant):	8 digits
Automatic Floating Logic	

Decimal:

Overflow System: Display indicates overflow by amber light if entry or results exceed eight whole number digits.

Underflow System: Display indicates the eight most significant numbers for answers greater than eight digits when 8 or fewer decimal places are part of the answer.

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Negative Number: Display indicates negative number by red light.

Display: Nonglare light filter.

Components: MOS/LSI and Silicon solid state.

Dimensions:  $1\frac{1}{2}$ "high,  $6\frac{1}{2}$ "long,  $4\frac{1}{4}$ "wide.

Weight: 10 ozs. net (without batteries)

#### HOW TO USE "AC" POWER

Plug the AC/DC adapter into 110 volt, AC power source. Insert the socket at the other end of the cord into the receptacle located on the calculator.

Move power switch level to "AC", then turn the power on by moving the ON-OFF switch to "ON" position. Your calculator now is being operated thru "AC" power source.

#### HOW TO USE "BATTERY" POWER

If your unit was previously being operated by AC power source, then to use unit on "Battery" power, move the ON-OFF switch to "OFF", move power source switch from "AC" to "BAT", then turn the ON-OFF switch to "ON" again. Your calculator is now ready to be operated on "Battery" power source. Make certain batteries are inserted properly by following directions below.

#### HOW TO INSERT BATTERIES

Five # AA batteries (Alkaline Type Recommended), are needed to operate your calculator when not using AC power. Always replace the batteries as a group.

The hatch of battery compartment is located on the bottom side. To replace or insert the batteries, turn the calculator over in your hand, press the hatch lightly downward and push it in the direction of the arrowhead. Take the hatch off, remove old batteries, put in five fresh ones one by one, place them in proper polarity (+ or -) as shown in the engraving, put the hatch back, close it tightly and place the calculator back on the desk. You have a new battery power source at your service.

EXAMPLE:		ENTER NUMBERS FU	TOUCH	DISPLAY NOW READS
12+ 14= 26	12	12	C =	0.
EXAMPLE:	<u>+ 14</u> 26	14		26.
3.86+ 515.00 - 65.00= 453.86	3.86 + 515.00 65.00	3 8 6	+= +=	3.86 518.86
EXAMPLE:	453.86	6 5 *	_ C	(453.86) (0.)
610-845=-235	610 - 845 - 235	6 1 0 8 4 5	±	610. NEG. 235. **

#### ADDITION AND SUBTRACTION

\*Note-Two zeroes are always automatically added by the unit so it is unneccssary in this example to depress the zero bar twice, or to depress the decimal Key.

\* \* Note-In this example the (NEG) sign would be lit indicating that the number is a (minus) -235. This a true credit balance total, that is, if +245 is now entered in the unit, the total will be a +10. This feature is only available on "True credit balance" units.

EXAMPLE		ENTER NUMBERS	TOUCH FUNCTION KEY	READS	
			С	0.	
12×14=168	12	12	X	12.	
	× 14	14	=	168.	
EXAMPLE:	168		C	0.	
2.67 × 15.2 = 40.584	2.67	2.67	X	2.67	
	× 15.2	15.2	=	40.584	
EXAMPLE:	40.584		С	0.	
126÷6=21	21	126	÷	126.	
	6)126	6	=	21.	
EXAMPLE			С	0.	
$14.36 \div 8.2 = 1.75121951210$		14.36	÷	14.36	
1.75121951210 8.2 14.3600000000		8.2		1.7512195 *	

\*Note-In this example, the unit has utilized the automatic underflow system (see page 5 for explanation).

#### CHAIN CALCULATIONS ENTER TOUCH DISPLAY NOW EXAMPLE: FUNCTION KEY NUMBERS READS C 0. 123.85 × 346 × 346.767 X 2 3 8 5 111 123.85 $\div 3 \times 14.1 = 69840561.555290$ 3 4 6 Х 42852.1 123.85 × 346 4 6 7 6 7 X 3 14859694. 42852.10 ÷ 14859694. 346.767 14859694,16070 3 = 4953231.3 4953231.38690 3)1485969416070 X 4953231.3 4953231.38690 × 14.1 1 4 . 1 + 69840561. 69840561.555290

#### BATTERY LOW INDICATION

When you note that one (or more) numeral in the display is becoming much weaker in intensity, it is an indication that the batteries are low and should be replaced. If the batteries are not replaced and allowed to "RUN DOWN" further, the unit may begin to give incorrect calculations. The batteries must be replaced or the system switched to "AC" power. Battery Test-If you wish to make certain that the batteries are still strong, perform the following "Battery Test".

1. Put switches to "I positions.	BAT" & "ON"	ENTER	NUMBER	S TOUCH	FUNCTION	KEY DI	SPLAY NO	W READ	S
		8888	888	8			88888	888	
2. If one (or more) r replaced. Always re	numeral in the display eplace batteries as a g	appears ver roup.	ý 'weak'' ir	n intensity,	it is a sign	that the	batteries	should	be

3. You may note a slight difference of intensity of brightness between the numerals when the unit is being used on "AC" power. This is a normal characteristic of the display.

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OVERFLOW

1. Answer Overflow

EXAMPLE:	ENTER NUMBERS	TOUCH FUNCTION KEY	DISPLAY NOW READS
587654 × 2543159= 1494497558986		С	0.
587654	587654	X	587654.
× 2543159	2543159	ŧ	OVF. 14944.975
1494497558986			

In this example the overflow signal (OVF) would be on indicating that the answer is incorrect due to exceeding the unit's calculating capacity.

Once the (OVF) is lit, the answer appearing in the display is incorrect. No further calculations are possible and the  $\boxed{C}$  Key must be touched to resume operations.

2. Entry Overflow. If your entry exceeds 8 digits, the overflow signal will appear.

Just touch the CE key to clear your display.

#### CONSTANT MULTIPLIER OPERATION

(Following problems all have .75 as a constant)

#### EXAMPLE:

.7	$5 \times 386 = 289.5$	0
	386	
	× .75	
	289.50	
EXAN	IPLE:	

#### EAAIVIPLE.

 $.75 \times 486 = 364.5$ 486 $\times .75$ 364.50

#### EXAMPLE:

$.75 \times 1397 = 1047.75$	1397	X	1047.75
1397 × .75		Move K to left to	
1047.75		disengage constant	

In this series of examples, .75 was the constant-multiplier and with the Bohn simplified logic system, it is not necessary to use the  $\pm$  key to obtain the answer when the constant switch is engaged. If you do use the  $\pm$  key in constant multiplication, it will give you an incorrect answer since you are adding the constant rather than multiplying.



(Following problems all have 8 as a constant)			
EXAMPLE:	ENTER NUMBERS	TOUCH FUNCTION KEY	DIAPLAY NOW READS
		С	0.
25 ÷ 8 = 3.125	8	Move K to right	8.
8)25.000	25	÷	3.125
EXAMPLE:	546		68 25
546 ÷ 8 = 68.25	040	Ŀ	08.23
8) <u>546.00</u>			
EXAMPLE:			
$1734 \div 8 = 216.75$	1734	÷	216.75
8)1734.00		Move K to left	1-181
		to disengage constan	

### CONSTANT ADDITION OR MULTIPLICATION

The unit is also capable of doing constant addition or subtraction. Just enter the constant you wish into the unit and touch the  $\pm$  key for addition or the  $\equiv$  key for subtraction.

## RAISING TO A POWER

EXAMPLE:		ENTER NUMBERS	TOUCH FUNCTION KEY	DISPLAY NO READS
			С	0.
3 <sup>4</sup> =81		3	Move K to right	3.
$3 \times 3 \times 3 \times 3 = 81$			X	9.
			x	27.
			X	81.
EXAMPLE:			С	0.
			Move K to left	0.]
2 <sup>5</sup> ×3=96		2	Move K to right	2.
$2 \times 2 \times 2 \times 2 \times 2 \times 3 = 96$			X	4.
			X	8.
			X	16.
			X	32.
			Move K to left	32.
	*		X	32.
		3	ŧ	96.

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#### RAISING TO A POWER

EXAMPLE:

 $1365 \div 2.2^3 = 128.19308$  $2.2^3 \overline{)1365}$ 

128.19308



In the problem above, we engaged the K to put in the constant of 2.2 then divided the 1365 by 2.2 three times or  $2.2^3$ .

#### UNDERFLOW

For answers greater than 8 digits, but with 8 or fewer decimal places (whole numbers), only the 8 most significant digits are retained and operations may continue without clearing.

#### CLEAR ENTRY

When you make an incorrect entry during calculation, depress CE before depressing any other function key, and enter the correct number. You do not have to recalculate the entire problem. In multiplication if you depressed the  $\div$  key instead of X key by mistake, depress X without depressing CE and proceed with your calculations. This same procedure would be used (but vice versa) if you wish to divide instead of multiply.

#### MAINTENANCE INSTRUCTIONS

This calculator is made up of precise parts such as large scale integrated circuits. Hence radical changes in temperature or humidity are never permitted. The following points must be carefully noted.

1. Do not drop or give a strong shock or vibration to the machine.

- Power switch must be always "OFF" when power cord is pulled out or to switch power sources between "AC" and "BAT".
- 3. Direct rays of the sun or a stove, etc. which gives direct heat for long hours must be avoided.
- 4. When removing dust from the machine, use either neutral cleaner or plastic cleaner. Do not use volatile matter, such as paint thinner or wet cloth.
- 5. Please put it in the carrying case when traveling.

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