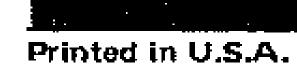
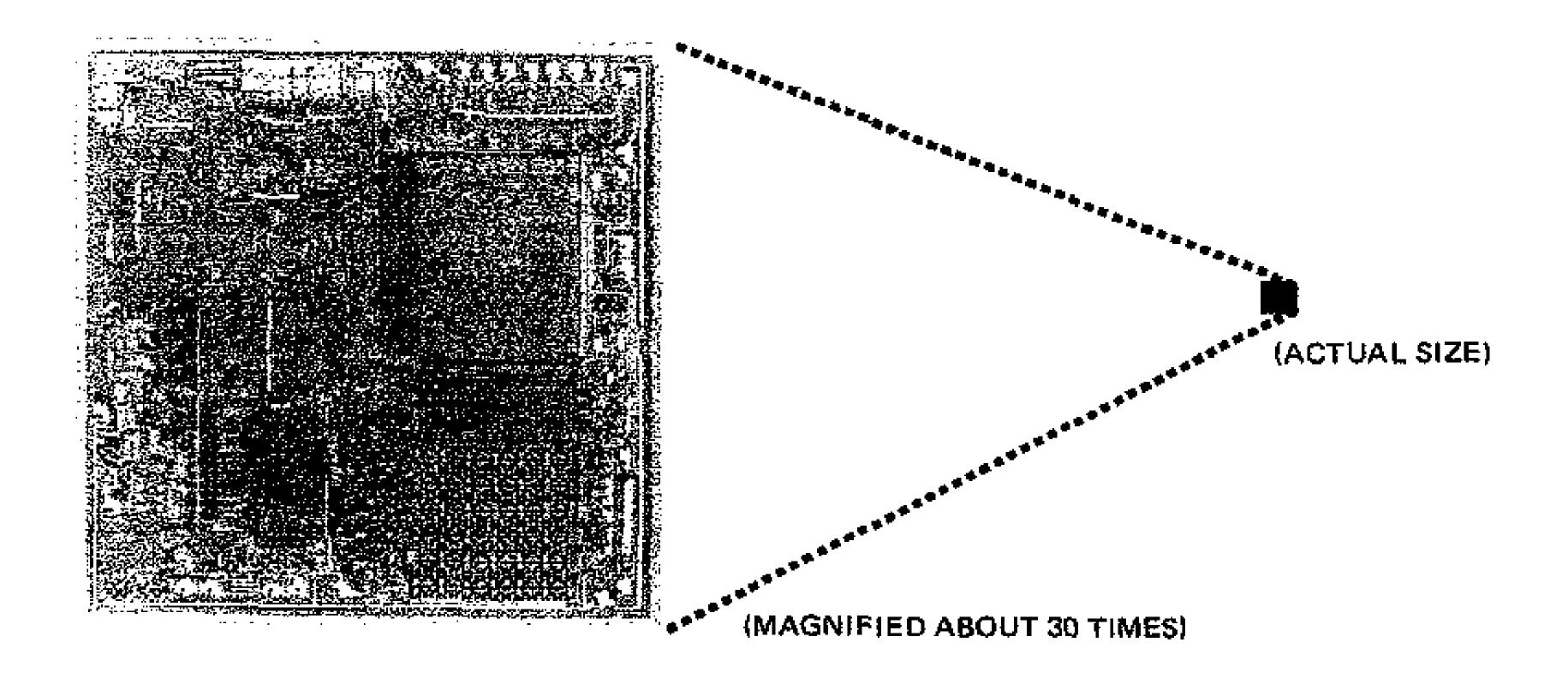


SEARS AC/DC
MICROELECTRONIC
CALCULATOR
WITH LIQUID CRYSTAL
DISPLAY

Operating Instructions



Microelectronics Is The Reason Why Your Sears Calculator Figures More But Costs Less . . .



The calculating "brain" of your Sears calculator is contained on a single microelectronic circuit — see above. It consists of more than 11,000 electronic elements, all solidly connected together. Hence, your Sears calculator is solidly reliable . . . and it is amazingly versatile.

Your Sears microelectronic calculator performs functions and mathematical sequences with time-saving, easy-do-it key functions. It remembers prior answers; uses them in the next problem if you like. It even remembers a designated number with which it will add, subtract, multiply or divide repeatedly as you may desire. It gives you intermediate answers without need for you to depress

the key. It automatically positions the decimal point. It has a key that automatically divides or multiplies your answer by 100 to give you percentages with a single key depression . . . And that's only the beginning of the list of Sears calculator features.

Notice that your Sears microelectronic calculator displays entries and answers in big, big numerals that glow soothingly — don't glare. They're so easy to read because this is the most advanced display on the market. You'll see the numbers magically form as you work, and your answers are displayed as fast as you can work.

It's called a "Liquid Crystal Display."



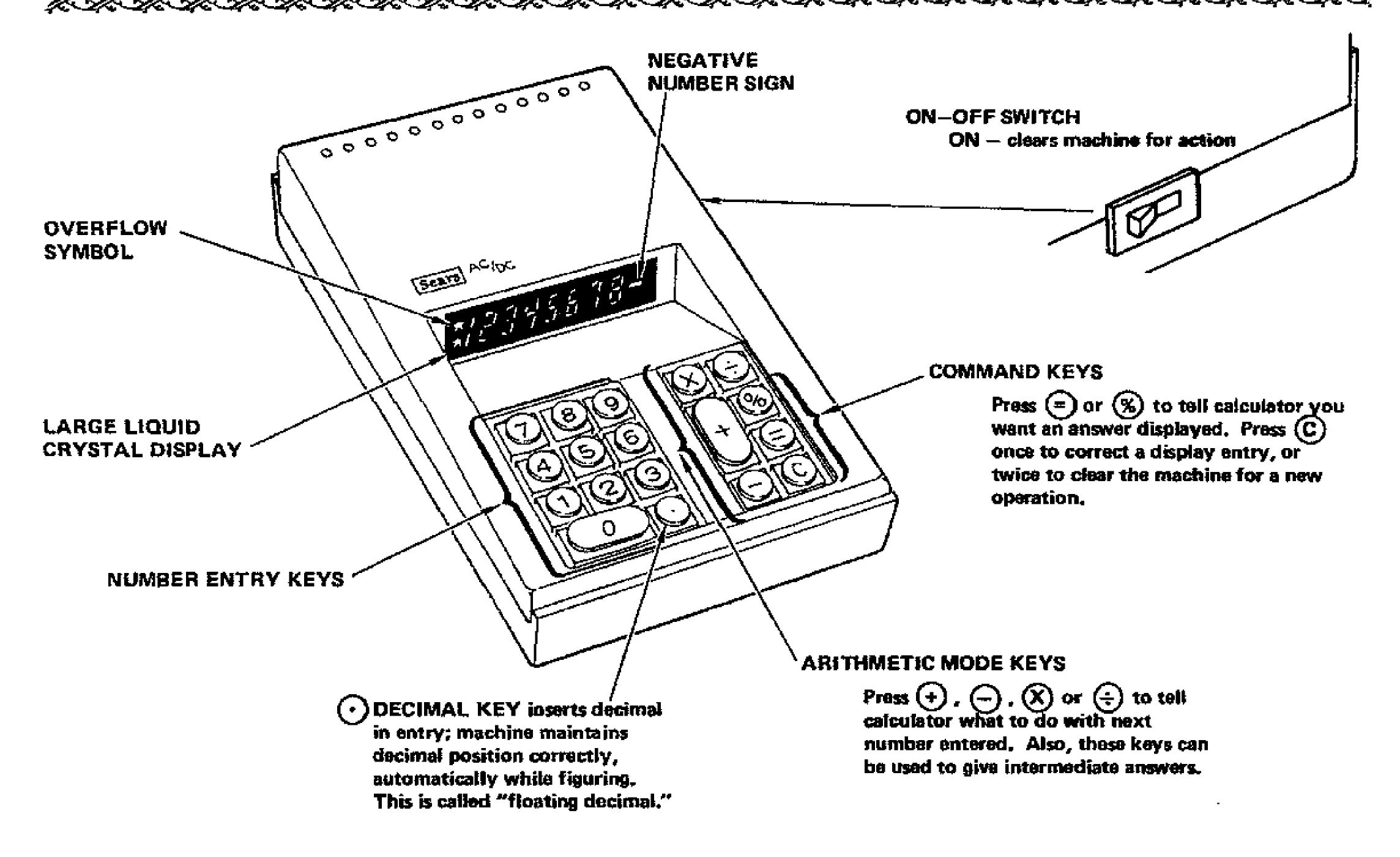
Actual Size: 1/2-inch High, Glowing Numerals

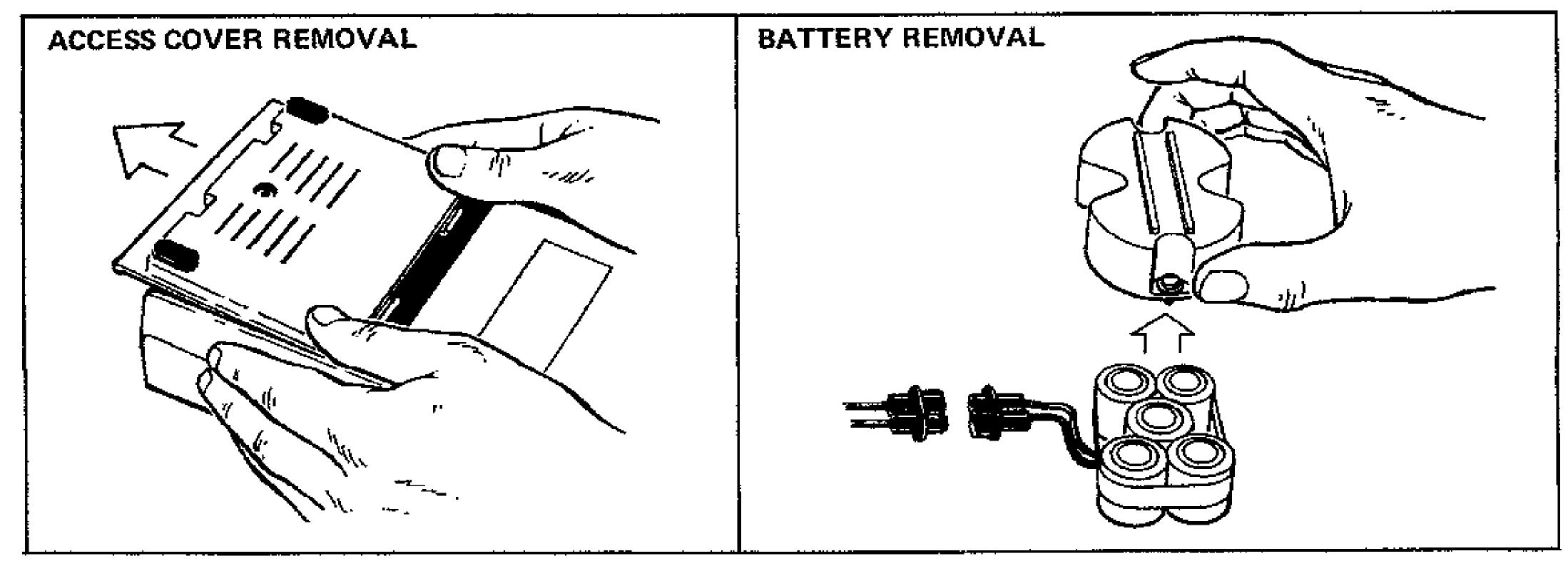
SEARS MICROELECTRONIC CALCULATOR GUARANTEE

We guarantee this calculator to work properly. If it does not, simply return it to our nearest store wherever you live in the United States, and we will:

During the first year, repair it free of charge.

SEARS, ROEBUCK AND CO.





You've Bought The Best, So We Suggest You Give Your Sears Calculator The Best Care . . .

You've bought a microelectronic calculator, a machine that's engineered in the same tradition of reliability and long life that produced aerospace vehicles like the moon-travelling Apollo.

But being microelectronic, it deserves the same care that you give your other prized possessions. Here are some practical tips:

- 1. Keep it away from moisture, water and other liquids.
- 2. Never use a dry or wet cleaner of any kind on its case; simply wipe it off with a clean dust cloth.
- 3. Turn it off and place dust cover on it when machine is not in use.
- 4. Do not expose your Sears microelectronic calculator to extremes of hot or cold. For example, avoid placing it on a radiator, or taking it out into rain or snow.

SPECIAL CAUTION: If your calculator is stored in below freezing temperatures, the display may become inoperative — the liquid crystal material freezes. As soon as the display reaches room temperature, it will work perfectly again. Warm-up times will vary according to conditions, but DO NOT EXPOSE CALCULATOR TO STOVE, OVEN, RADIATOR or other extreme heat during warm-up.

5. If your Sears calculator does not work properly, we suggest that you DO NOT ATTEMPT TO REPAIR IT YOURSELF. There's a roomful of ordinary electronics in your little microelectronic machine. Bring it or send it to your nearest Sears Service Center where specially trained experts will repair it for you. If you send it in, pack it carefully. If you write us about your calculator, be sure to state the model number on the bottom of the case.

BEFORE OPERATING YOUR CALCULATOR:

Your calculator operates from a nickel-cadmium (NiCad) rechargeable battery pack and an AC adapter - battery charger. Both are included with your calculator.

Your calculator is shipped with the NiCad battery pack in the machine but DISCHARGED. Attach the AC adapter - battery charger from your calculator to a conventional 110V AC outlet. Your calculator is ready to use! The calculator can be operated continuously from the AC adapter - battery charger without causing damage to the calculator.

NOTE:

Allow approximately five hours at maximum charge rate (see Note No. 1 below) for the battery pack to become fully charged before operating on batteries alone.

BATTERY RE-CHARGING:

Your calculator can be operated from the battery pack for a minimum of three hours before recharging is required. When the battery pack becomes discharged simply plug the AC adapter - battery charger into your calculator.

NOTES:

- 1. When the calculator is OFF and the AC adapter battery charger is plugged in, the battery pack is being charged at a maximum rate. When the calculator is ON the battery pack is being charged, but at a slower rate.
- 2. The battery pack can be recharged a minimum of 500 times. However, to prolong battery life it is suggested that the calculator NOT be operated to the point of total battery discharge.

LOW BATTERY INDICATION:

When the battery pack becomes discharged all characters will light on the liquid crystal display and the keyboard will become inoperative (see below). A Preliminary Signal to impending battery discharge is a dimming of the liquid crystal display.

CAUTION!!

TO AVOID PERMANENT DAMAGE TO THE BATTERY PACK, ONCE YOU ARE AWARE THAT THE BATTERIES ARE LOW, DO NOT ATTEMPT TO OPERATE THE CALCULATOR FURTHER UNLESS YOU PLUG IN THE AC ADAPTER BATTERY CHARGER.

BATTERY REPLACEMENT:

The battery pack (five 3/5 C cell nickel-cadmium batteries) is a replaceable item. Replacements can be ordered from your nearest Sears retail or catalog store and can be easily installed at home, or you can return your calculator to the nearest Sears Service Center for replacement of the battery pack. (See battery pack removal diagram on page 2.) Always specify the model number of your calculator when ordering parts from Sears.

CAUTION!

TO AVOID PERMANENT DAMAGE TO YOUR CALCULATOR, DO NOT OPERATE IT WITH THE BATTERY PACK REMOVED.



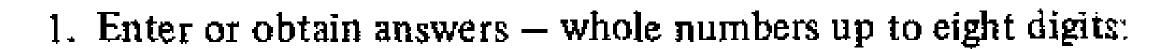
Your Sears Microelectronic Calculator Is Easier To Operate Than An Adding Machine . . .

COMMAND KEY FUNCTIONS

In subsequent sections, all the functions of Command Keys are illustrated by examples. For your easier understanding, these functions are described here.

standing, those rangemons are described nerv.
★EY:
Depress 🖹 key to tell machine to:
1. Perform Last Operation Entered
2. Display Answer
3. Retain Answer in Case You Want to Use It in Next Operation
4. Get Ready for a New Operation
EXAMPLES: ②+②= 4. +2= 6.
5. Depressing C key after erases answer. Machine is ready for completely new operation.
EXAMPLE: ②+②= 4. © 0.
% KEY:
The key performs same functions as key except answer is automatically multiplied or divided by 100 and decimal point is correctly positioned. See Section XI for details.
© KEY:
1. Depress C following e or 6 to clear machine completely for new operation – see examples above.
2. Depress © ONCE following a wrong number entry to ERASE ENTRY without destroying prior operation — see Reference IV—C and IV—D.
3. Depress C ONCE to eliminate entry or answer overflow condition — see following examples.
4. Under any circumstances, depress C TWICE to CLEAR machine completely for new operation. This is a good practice to adopt prior to beginning a new operation.

MACHINE CAPACITY:



12345678.

2. Enter numbers less than one up to seven digits to right of decimal. (Zero always appears to left of decimal if number is less than one.)

 $\bigcirc (1)(2)(3)(4)(5)(6)(7)$ 0.1234567

3. Enter decimal numbers up to eight digits.

123.45678

4. Machine displays decimal answers up to eight digits, discarding least significant numbers to right of decimal, e.g.

33,333333

IF YOU EXCEED MACHINE'S CAPACITY:

When an entry or answer exceeds machine's capacity, all keys become inoperative except "Overflow symbol" is displayed — see stars indicated by arrow below.

Depress C ONCE to eliminate overflow condition and all keys are again operative. Number displayed is first number of continued operation.

#18345676. © 18345676.

Depress TWICE to clear machine completely.

4 3 4 5 5 7 5 9 9

NOTE: In addition to exceeding machine's capacity with an entry or answer, attempting to divide by zero produces an overflow condition.

FUNCTIONS AND FEATURES

Because of its microelectronic power, the Arithmetic Mode and Command keys of your Sears calculator perform multiple functions. Additionally, a 6 key is provided, a unique feature among low cost calculators.

These keys enable you to solve problems with time-saving shortcuts.

Learning the key functions of your Sears calculator is easy. The following pages both tell you and show you so that you can learn in a few minutes. We suggest you practice the examples on your own machine.

ADDING, SUBTRACTING, MULTIPLYING, DIVIDING:

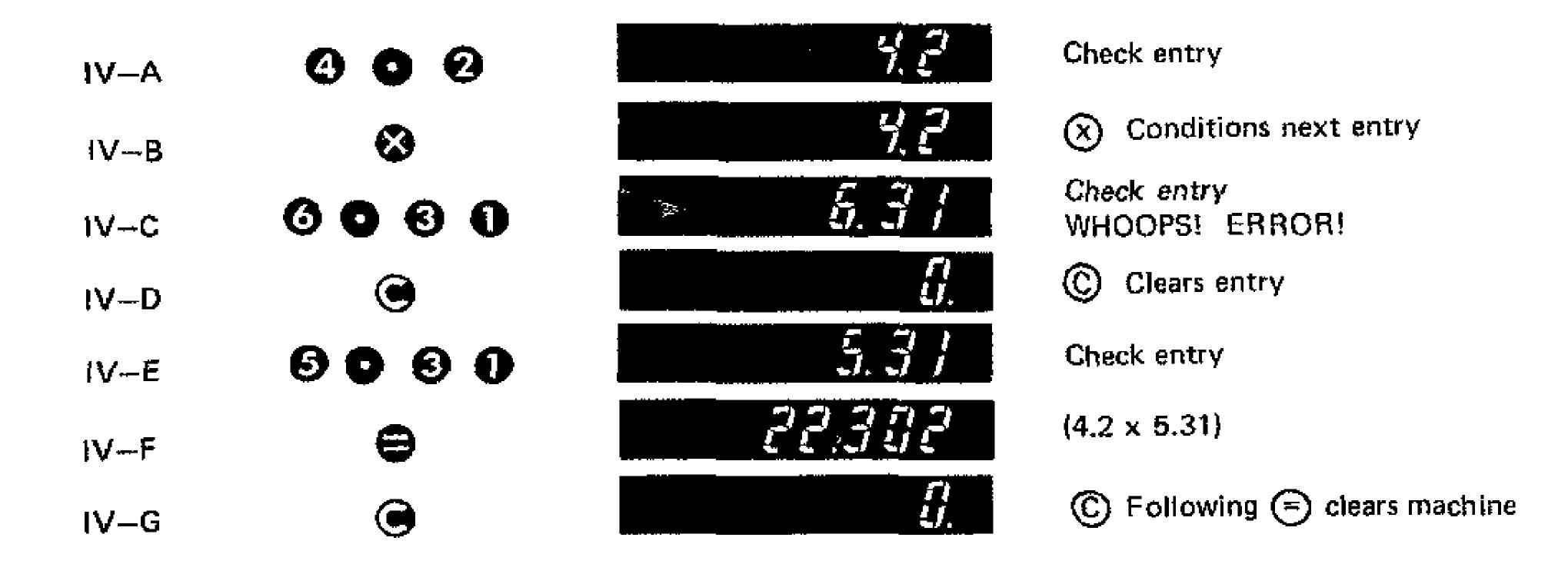
- 1. \bigcirc , \bigcirc , \bigcirc , keys "condition" the <u>next number entered</u>; that is, if you press \bigcirc , the <u>next number</u> you enter will be added (see Reference I-C below).
- 2. (+), (-), (**) keys also complete the last operation previously entered: that is, if you previously depressed (+), then entered a number, then depressed (-), the number will be added and the answer displayed with the depression of (-) (see Reference III-D). The (-) depression conditions the next number entry. This time-saving feature is called "chaining," and is shown in detail in Reference VI.
- 3. See how easy it is to check your entries, and to correct a wrong entry (References IV-C and IV-D).
- 4. You can subtract a larger number from a smaller number without having to erase and begin over (see Reference VII).
- I. ADDITION EXAMPLE: 7.1 + 3.2 = ?

REFERENCE	YOU DEPRESS THESE KEYS	CALCULATOR DISPLAYS	NOTES
I-A	• •	S. S	Clear machine
!-B	00		Check entry
I-C			+ Conditions next entry
i-D	8 9	3. 3	Check entry
}-E		15.3	(7.1 + 3.2)
I-F		Į.	© Following = clears machine
II. SUBTRA	CTION EXAMPLE: 1	0.3 - 6.1 = ?	
11-A	0000	18.3	Check entry.
H-B		183	Conditions next entry.
H-C	300	S. /	Check entry
II-D		4.2	(10.3-6.1)
II-E	•	Ej.	© Following = clears machine

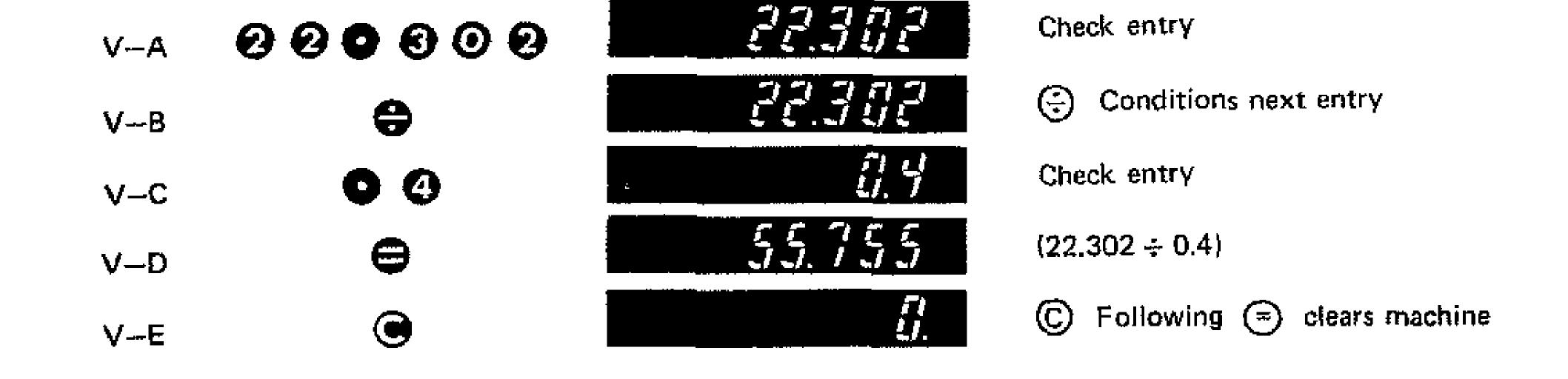
III. MIXED ADDITION, SUBTRACTION EXAMPLE: 7.1 + 3.2 - 6.1 = ?

REFERENCE	YOU DEPRESS THESE KEYS	CALCULATOR DISPLAYS	NOTES
A	Ø • •	7. ;	Check entry
IIIB	•		(+) Conditions next entry
IIIC	6 6	3.3	Check entry
III-D		15.3	Completes previous operation (7.1 + 3.2) and conditions next entry. IT IS NOT NECESSARY TO DEPRESS (=)
₩-E	600	Er. †	Check entry
III—F		7.2	(7.1 + 3.2 - 6.1)
IIIG	•	G.	C Following = clears machine

IV. MULTIPLICATION EXAMPLE: 4.2 X 5.31 = ? (ERROR CORRECTION)



V. DIVISION EXAMPLE: 22,302 ÷ 0.4 ≈ ?



VI. "CHAINING" EXAMPLE:
$$7.1 + 3.2 - 6.1 = ? \times 5.31 = ? \div 0.4 = ?$$
or*, $\frac{(7.1 + 3.2 - 6.1)}{0.4} = ?$

(NOTE: This is the same problem as the series of problems solved in References III, IV and V; but now you solve them with a time-saving minimum of key depressions, using the microelectronic multi-function capabilities of the \bigoplus , \bigoplus , \bigotimes , \bigoplus keys without bothering to depress the \bigoplus key — although you can continue the "chain" even if you prefer to depress \bigoplus (see Reference VI-F and VI-G).

REFERENCE	YOU DEPRESS THESE KEYS	CALCULATOR DISPLAYS	<u>NOTES</u>
VIA	Ø O 0		Check entry
VI—B	•		Conditions next entry
V!−C	60 0	\mathcal{J},\mathcal{E}'	Check entry
VI—D			Completes previous operation (7.1 + 3.2) and conditions next entry. IT IS NOT NECESSARY TO DEPRESS (=). This is 'Chaining'.
VIE	600	G. I	Check entry
VIF	=	7. 2	(7.1 + 3.2 - 6.1)
VI-G		7. 2	BECAUSE © WAS <u>NOT</u> DEPRESSED FOLLOWING (=), prior ANSWER (4.2) IS FIRST NUMBER OF NEW OPERATION. Also, (x) conditions next entry
VI—H	6 0 0 0	5.31	Check entry
VI—I			(4.2 x 5.31) ② Completes prior operation and conditions next entry. NO NEED TO PRESS ② as you did in VI-F and VI-G. This is true 'chaining'.
V!J	0 0		Check entry
VIK		55.755	(22.302 ÷ 0.4)

VII. ALGEBRAIC* SUBTRACTION EXAMPLE: 55.755 - 108.71 = ?

(NOTE: The principal purpose here is to show you that because of the microelectronic power of your Sears calculator, you do not have to erase a smaller number that you already have as a prior entry or answer (in this case the final answer to Reference VI) to subtract a larger number.

(Continued)

^{*} See Section XII.

VII. ALGEBRAIC SUBTRACTION EXAMPLE: 55.755 - 108.71 = ? (CONTINUED)

REFERENCE	YOU DEPRESS THESE KEYS	CALCULATOR DISPLAYS	NOTES-
VII—B	00000	188.71	Check entry
VII-C		58.355-	(55.755 — 108.71)
V!!-D	(3)	\mathcal{E}_{I}	C Following 😑 Clears machine

VIII. REPEATED ADDITION, SUBTRACTION, MULTIPLICATION or DIVISION:

- 1. The last number entered can be repetitively added or subtracted, or becomes the repeated divisor or multiplier by repetitively depressing (+), (-), (X), or (+) keys (see Reference VIII-C, and VIII-D, etc., below).
- 2. Repeated operations can be "chained" and mixed (see Reference VIII-D, VIII-E, VIII-G, etc.).
- 3. Remember that the Arithmetic Mode Keys do two functions in chaining: (1) the last operation is completed and displayed; (2) the next operation is entered (see Reference VIII-D, VIII-E, VIII-F, etc.)

EXAMPLE: $200 + 2 + 2 = ? - 2 - 2 = ? \times 2 \times 2 = ? \div 2 \div 2 = ?$

	• •	El.	
VIIIA	900	E G G.	Check entry
VIII-B	•	P II II.	Conditions next number entered
VIII—C	2		Check entry REPEATED NUMBER
VIII—D			NO NEED TO PRESS (=) (200 + 2) (+) Conditions next entry
VIII-E	•		NO NEED TO PRESS ⊕ (200 + 2 + 2) ⊕ Conditions next operation.
VIII-F			NO NEED TO PRESS (=) (204 2) Also conditions next operation
VIII—G			NO NEED TO PRESS (=) (204 - 2 - 2) (X) Conditions next operation
V}}}-H	8		(200 X 2) ③ Conditions next operation NO NEED TO PRESS (=)
			(Continued)

VIII. REPEATED ADDITION, SUBTRACTION, MULTIPLICATION or DIVISION: (CONTINUED)

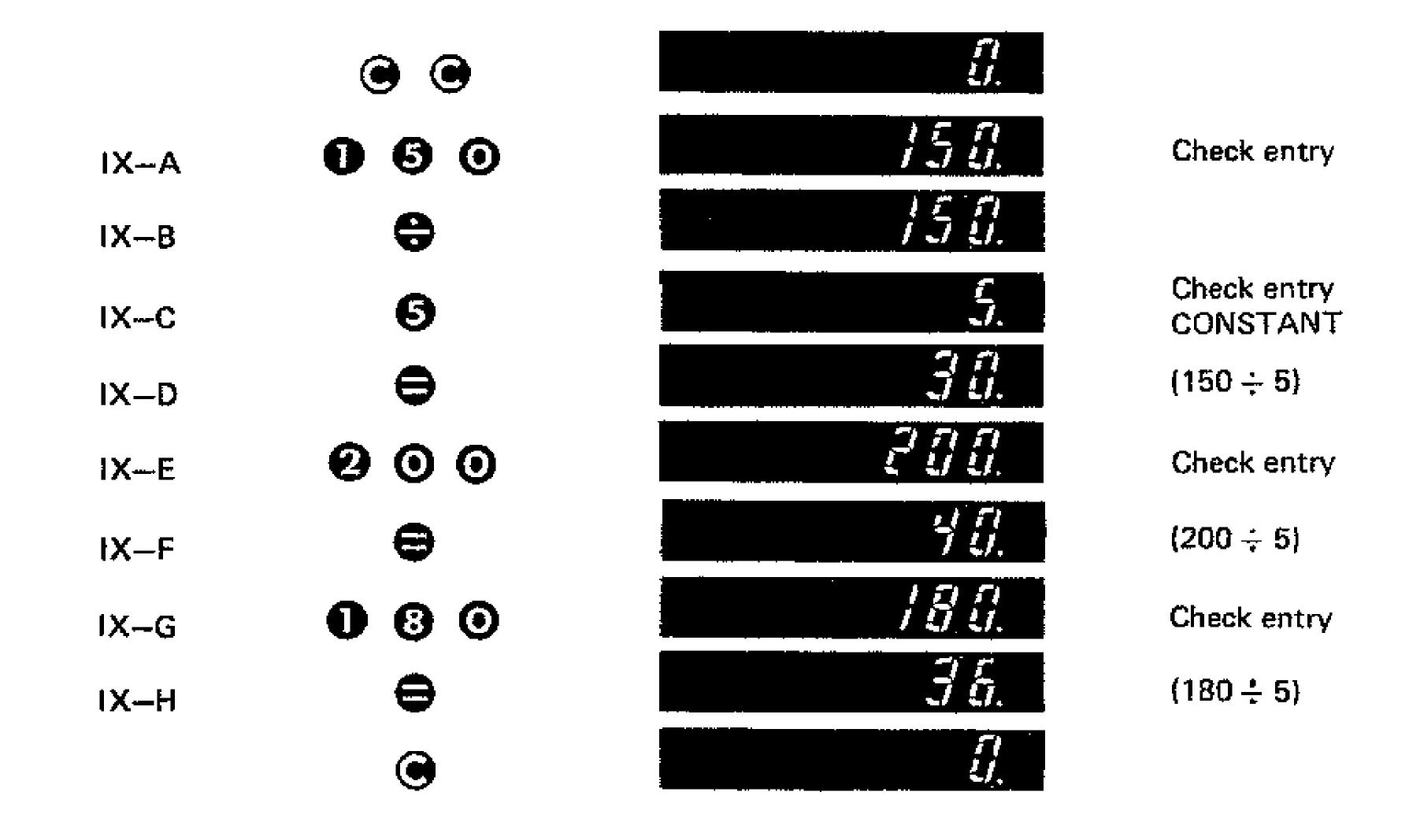
REFERENCE	YOU DEPRESS THESE KEYS	MACHINE DISPLAYS	<u>NOTES</u>
VIII—I			(200 X 2 X 2) Conditions next operation NO NEED TO PRESS
VIII—J	+		NO NEED TO PRESS (=) (800 ÷ 2) (Conditions next operation
VIII–K		E G G.	(800 ÷ 2 ÷ 2) Terminates repeated operation
	(3)		C Following (=) Clears machine

IX. DIVIDING DIFFERENT NUMBERS BY THE SAME DIVISOR (CONSTANT DIVISION):

By using (=) key, you can divide different numbers by the same number with a minimum of key depressions. Note the following:

- 1. "Constant Division" is similar to "Repeated Division" (Reference VIII-I) except that you use the 😑 key instead of the 🕒 key.
- 2. The number entered immediately following the (+) key is the constant divisor (Reference IX-C).

EXAMPLE: $150 \div 5 = ?$ $200 \div 5 = ?$ $180 \div 5 = ?$



X. MULTIPLYING DIFFERENT NUMBERS BY THE SAME NUMBER (CONSTANT MULTIPLICATION):

By using the (=) key, you can multiply different numbers by the same number with a minimum of key depressions. Note the following:

1. "Constant Multiplication" is similar to "Repeated Multiplication" (Reference VIII-G), except that (a) you enter the constant multiplier as the first number of the operation; (b) you use the (a) key instead of the key.

EXAMPLE: $150 \times 5 = ?$; $200 \times 5 = ?$; $180 \times 5 = ?$

REFERENCE	YOU DEPRESS THESE KEYS	MACHINE	NOTES
	● ●		
XA	6	Ī.	Check entry (CONSTANT)
ХВ	8	5.	
X-C	9 6 0	15 G.	Check entry
XD		75 G.	(5 X 150)
XE	9 0 0		Check entry
X-F		i di di di.	(5 X 200)
X-G	0 0	/ El El.	Check entry
X⊸H		300.	(5 X 180)
	•		

XI. PERCENTAGE CALCULATIONS:

Your Sears microelectronic calculator has a % key which is a valuable time-saver. Note the following:

1. Number (A) is What % of Another Number (B):

FORMULA: NUMBER (A) DIVIDED BY NUMBER (B), (%) KEY

EXAMPLE: 20 is what percent of 25?

CALCULATION: (2)(0)(+)(2)(5)(%) 80. or 80%

2. How Much is a Given Percent of a Number?

FORMULA: PERCENT TIMES NUMBER, (%) KEY EXAMPLE: 5 percent of 45 is how much?

CALCULATION: (5)(X)(4)(5)(%)

2.25

(Continued)

XI. PERCENTAGE CALCULATIONS (Continued):

3. Calculating a fixed percent of several different numbers can be performed as a "Constant" operation. NOTE: Enter the fixed percentage (constant) FIRST.

EXAMPLE: 25% of 80 = ?; of 60 = ?; of 20 = ?

REFERENCE	YOU DEPRESS THESE KEYS	MACHINE DISPLAYS	NOTES
	• •		Clear machine
XIA	9 9	$\mathcal{Z}\mathcal{Z}$	Check entry CONSTANT
X!—B		25.	
XI-C	9 0	ម្ចី ម្ចី ម្ចី ម្ចី ម្ចី ម្ចី ម្ចី ម្ចី	Check entry
XI-D	2		(25% of 80)
XI-E	3 0	G II.	Check entry
XIF	%	J.S.	(25% of 60)
XIG	9 0	E G.	Check entry
X}H		Ĵ.	(25% of 20)
	•		

^{4.} Calculating the percentages that various numbers are of a fixed number can also be performed as a

"constant" operation.

NOTE: Use (%) key for first calculation; (=) key after that.

EXAMPLE: 12, 16,21 are what percentages of 37?

	• •	Ü,	Clear machine
XI—IX	0 0		Check entry
XI-J	+		
XIK	❸ ❷	37.	Check entry CONSTANT
Xi-L	2	32432432	(12/37 = %)
XI-M	0 0	15.	Check entry
XI—N		43.243243	(16/37 =%)
XI-O	9 0		Check entry
XI—P		55.755755	(21/37 = %)
X1—Q	•		Clear machine

XII. ALGEBRAIC ARITHMETIC:

Your Sears microelectronic calculator figures algebraically. This is why we say: "Your Sears calculator solves problems as you write them."

For example: If a lawn is 11 feet 6 inches by 10 feet 3 inches, what is its area in square inches?

Logically, you would write this as three separate problems: (A) 11 feet times 12 inches plus 6 inches equals? inches; (B) 10 feet times 12 inches plus 3 inches equals? inches; (A) times (B) equals? square inches.

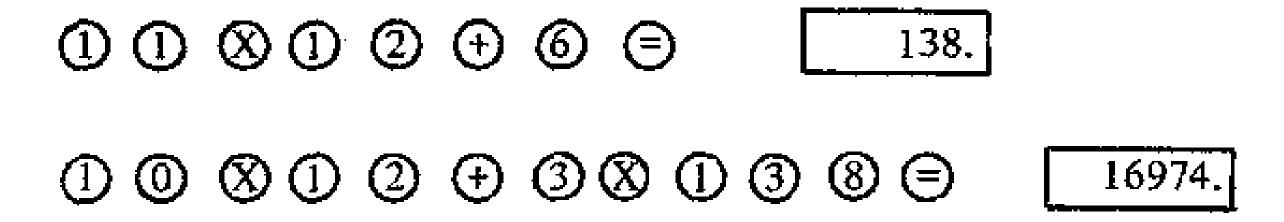
Or:

(A)
$$11 \times 12 = ? + 6 = ?$$
 inches; (B) $10 \times 12 = ? + 3 = ?$ inches; (A) $\times (B) = ?$ square inches.

Or, in algebraic style, we can write the above problem thus:

$$(11 \times 12) + 6 \times (10 \times 12) + 3 = ?$$

With your Sears microelectronic calculator, regardless of which way you write the problem, you solve it with a minimum number of key depressions as follows:



(16974 square inches is the area of the lawn.)

How to Get the Most

From Your Sears Microelectronic Calculator

A calculator is a "Brain Machine." A category that includes computers and other machines which reduce the amount of mental effort required to track our activities in this complex, modern world.

Calculators have long been the "money machines" of businessmen, merchants and bankers.

Until 1969 most calculators were electrically powered mechanisms of gears and levers and were typically priced at around \$1,000.

Your Sears microelectronic calculator with large liquid crystal display, is far more reasonably priced because of advances in technology. Additionally, its operation is simple. It is designed for home use.

You are going to be amazed at the number of situations in your daily living in which you can use your Sears calculator to save money — and have fun doing it.

The following pages show you a few examples of ways in which you can put your calculator to work in your home.

So have fun — using your Sears calculator to take the pain out of figuring interest on loans; calculating carpeting, panelling, wallpaper; comparing food prices; balancing the family checkbook and keeping the family budget; preparing income tax forms; checking investments in stocks, bonds and real estate; even computing baseball batting averages or bowling averages . . .

Here Are Just A Few Of Hundreds Of Ways You Can Save Money Or Make Life Easier With Your Sears Microelectronic Calculator

WHAT IS THE BEST BUY? EXAMPLE: Which is a better buy? (#1) 4-pound Box Detergent for 98¢; (#2) Two 38-Ounce Boxes for \$1.14? METHOD: PRICE DIVIDED BY <u>SAME</u> UNITS — in this case, convert to ounces. WITH YOUR SEARS CALCULATOR: BUY #1: .98 ⊕ 4 ⊕ 16* ≅ 0.0153125 (1.53¢ per OUNCE) BUY #2: 1.14 ⊕ 2 ⊕ 38 ≅ 0.015 (1.5¢ per OUNCE) *16 oz. = 1 ib. (Buy # 2 is the better buy because cost per ounce is lower.) EXAMPLE: Which is the better buy? (#1) Carpet at \$8.99 per SQUARE YARD; (#2) 450 Square Feet for \$449.50? BUY #1: 8.99 ⊕ 9* ⊕ 0.9988888 (per SQUARE FOOT) BUY #2: 449.50 ⊕ 450 ≡ 0.9988888 (per SQUARE FOOT)

*9 sq. ft. = 1 sq. yd.

BALANCING YOUR CHECKBOOK:

(No difference.)

No longer do you have to separate deposits from checks. Just figure them as they're listed with your Sears microelectronic calculator.

EXAMPLE: Last Balance: \$349.72. Checks: \$67.46, \$8.67, \$34.28. Deposit, \$192.78. Checks: \$14.11, \$221.54, \$98.27. Deposit \$61.72.

WITH YOUR SEARS CALCULATOR:

349.72 — 67.46 — 8.67 — 34.28 + 192.78 — 14.11 — 221.54 — 98.27 + 61.72 = 159.89 (New Balance)

FRACTIONS:

All you have to remember is that the line (-,/) in a fraction means DIVIDE, and your Sears microelectronic calculator does the rest.

EXAMPLES: (A) 1/4 of 421? (B) 1/32 equals what decimal?

(Continued)

WITH YOUR SEARS CALCULATOR:

- (A) $1 \oplus 4 \otimes 421 \oplus 105.25 (105-1/4)$
- (B) 1 ⊕ 32 € 0.03125

CHECKING INTEREST PAYMENTS:

EXAMPLE: You want to buy a sofa for \$532. Interest is 1 1/2% per month on unpaid balance. You can afford

\$50 a month. How long will it take you to pay for the sofa?

METHOD: UNPAID BALANCE times 1 1/2% equals INTEREST PAYMENT which subtracted from TOTAL

PAYMENT gives PAYMENT on PRINCIPAL.

WITH YOUR SEARS CALCULATOR:

1st MONTH: 532 (X) 1.5 (%) 7.98 (—) 50 (=) 42.02^{*} (+) 532 (=) 489.98 [\$7.98 interest payment; \$42.02 principal payment; \$489.28 new balance.

2nd MONTH: 489.98 (**) 1.5 (**) 7.3497 (—) 50 (=*) 42.6503-** (+*) 489.98 (**) 447.33 [\$7.35 interest payment; \$42.65 principal payment; \$447.33 new balance.

ETC., UNTIL PRINCIPAL IS REDUCED TO ZERO.

*Minus numbers on your calculator. If you understand algebra, there is no need to clear machine. Just ADD LAST MONTH'S BALANCE and keep going.

(SEE SECTION XI FOR USE OF (%) KEY)

IF YOU OWN A BUSINESS:

MARKING UP COSTS OF ITEMS TO MAKE A DESIRED GROSS PROFIT:

For what should you sell an item that costs \$25.80 to realize a 55% Gross Profit on EXAMPLE:

the selling price?

COST SELLING PRICE = METHOD: - GROSS PROFIT

WITH YOUR SEARS CALCULATOR:

25.80 ().45 () 57.3333333 ()\$57.33)