

Cat. No. 65-570A

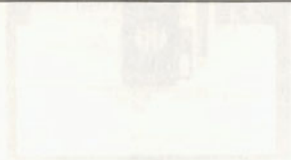
# OWNER'S MANUAL

Please read before using this equipment

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# EC-430

# DUAL-POWERED CHECKBOOK CALCULATOR



**Radio Shack®**

## INTRODUCTION

The engineering that brought you the convenience of a pocket calculator now gives you a new concept: one product to track your personal finances and process your day-to-day arithmetic operations, too!

The Radio Shack EC-450 has special features that allow you to figure interest charges, check bank and charge account statements and balance your household budget. It uses three continuous memories to save important balance information even when you turn off the calculator.

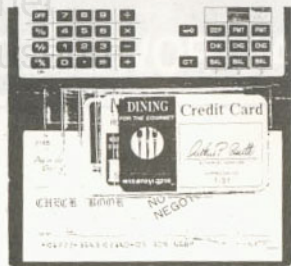
A built-in solar panel powers the calculator in normal light. In dim light, an internal battery takes over.

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## CHECKBOOK AND CREDIT CARD HOLDER

For your convenience, you can carry up to five credit cards along with your checkbook combination. Insert the last page of your checkbook into the checkbook holder. Then, turn the insert of the credit card holder over and insert your cards with the front facing you. Then, insert the flap of the holder onto the back of the checkbook holder and fix it in place.

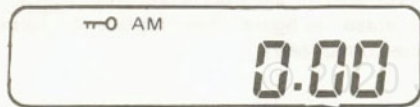


## CALCULATOR FUNCTION KEYS

**C/CE** Power On  
ON

Press this key to turn on the calculator.

The display shows



**AM** indicates that the calculator's decimal system is in Add mode. In this mode, you can leave the decimal point out of any "dollar-and-cents" figure you enter for addition or subtraction. The calculator automatically inserts the decimal point to mark off the cents from the dollars. For example, if you enter the number 125, the calculator converts it to 1.25. If you enter 3, the calculator converts it to .03.

To override Add mode, simply insert the decimal point where you want it. If you do this, however, the calculator requires that you put a decimal point in each subsequent number until you reset Add mode. To reset Add mode, press **C/CE** twice.

**(Caution:** Resetting Add mode clears all data except information in memory.)

You can multiply or divide in Add mode. However, only your first entry in the calculation has the placement of its decimal point based on Add mode.

**Note:** **C/CE** is used to clear data, as well as to turn on the calculator. This clear function is discussed later.

## **A/F** Floating Decimal

Pressing **A/F** to enter Floating Decimal mode. **AM** disappears from the display. In Floating Decimal mode, the calculator automatically inserts a decimal point immediately following any whole number you enter for addition or subtraction. For example, if you enter the number 125, the calculator interprets it as such.

As with Add mode, you can override Floating Decimal mode simply by inserting a decimal point in a number. If you do this, however, the calculator requires that you put a decimal point in each number until you reset Floating Decimal mode. Use **A/F** to switch back and forth between Floating Decimal mode and Add mode.

## **C/CE** Clear Entry

When you turn on the calculator, it clears all data and modes except information in memory and the ADD mode decimal setting.

If you enter an incorrect figure, press **C/CE** once to erase the figure. Then, replace the figure with the correct entry.

If you want to clear all data (except memory data), press **C/CE** twice. A zero appears on the display.

Press **C/CE** to clear an error condition, such as one caused by dividing by zero or calculating a number too large for the unit to process. If necessary, press **C/CE** a second time to display a zero. (See "Error Indicator.")

**OFF** Auto Battery Off

Press **OFF** to turn off the calculator. If you forget, a built-in shut-off circuit turns off the calculator in about nine minutes.

**+** , **-** , **×** , **÷** , Add,  
Subtract, Multiply, Divide

Press the appropriate key to perform simple arithmetic operations. Enter the amounts and press the keys as you would normally write the problem. Press **=** to obtain a final result.

Press **-** before a number and then press **=** to make the number negative.

**Note:** The unit cannot multiply or divide two negative numbers.

**%** Percent

Press **%** to find a percent of a number.

Examples:

- Find 5 percent of \$115. Enter  
 $115 \times 5 \%$  to get **\$5.75**.
- Find what percent 100 is of 200. Enter  
 $100 \div 200 \%$  to get **50**.
- Find the net amount after increasing \$115 by 5 percent.

Method A:  $115.00 \times 5 \% +$   
**= \$120.75**

Method B:  $115.00 + 5 \%$  **\$120.75**

- Find the net amount after discounting \$115 by 5 percent.

Method A:  $115.00 \times 5 \% -$   
**= \$109.25**

Method B:  $115.00 - 5 \%$  **\$109.25**

## Using a Constant

If you have repetitive multiplication or division calculations such as:

$$5 \times 2 = 10$$

$$5 \times 3 = 15$$

$$5 \times 4 = 20$$

$$5 \times 5 = 25$$

You can find all the results by pressing  $\boxed{=}$  without re-entering the constant factor.

Example: Press  $\boxed{A/F}$  for Floating Decimal mode.

Press

5  $\boxed{\times}$  2  $\boxed{=}$  3  $\boxed{=}$  4  $\boxed{=}$  5  
 $\boxed{=}$  . You see 10, then 15, then 20, and 25 displayed.

The calculator remembers the figure immediately preceding the  $\boxed{\times}$  or  $\boxed{\div}$  operator.

## Error Indicator

If a calculation results in an answer greater than 99999999 or if you attempt to divide by zero, the calculator returns an error and display a flashing E.

Press  $\boxed{C/CE}$  to clear the unit for further entries.

**Note:** When the result of a calculation is greater than 99999999, the calculator displays the eight most significant integers. The decimal appears eight places to the left of its actual position.

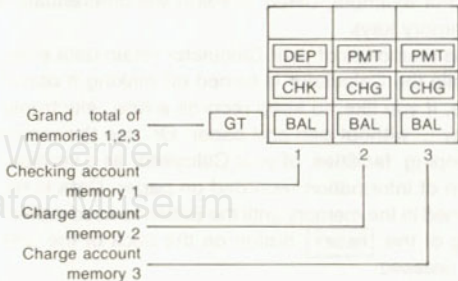
Press  $\boxed{C/CE}$  to clear the E display.

Press  $\boxed{C/CE}$  again to display a zero.

## CHECKING/CREDIT MEMORIES

Your EC-430 has three special memories to keep track of payments and charges on three different accounts. These memories retain the account balances even when you turn off the calculator. The memories are arranged in columns of three keys each.

## Three Permanent Memories





In the examples that follow, the **CHG** **PMT** and **BAL** keys will be referred to by numbers corresponding to the memories as labeled on page 7. For example, CHG<sub>2</sub> or PMT<sub>3</sub> will differentiate the memory keys.

The memories of your Calculator retain data even while the Calculator is turned off making it possible, if you like, to keep records a new, electronic way ... without pen and paper. Or, use the record keeping facilities of your Calculator as a verification of information recorded on paper. Data is retained in the memory until the Batteries need replacing or the **RESET** button on the back of the unit is pressed.

The first memory, which we refer to as M1, has **DEP** and **CHK** keys. It is intended for keeping track of your checking account transactions.



Memories M2 and M3 have **CHG** and **PMT** keys. Use them for charge accounts, budget records, loan balances, or other accounts payable.


To remind you which account you are using each memory for, label the memory columns. Use a grease pencil to identify the account in the boxes above the columns.

To prevent unauthorized access to all three memories, follow the instructions on page 9 to assign a single private security code.



## Using the Security Code




1. Press  to turn on the calculator.
2. The calculator is hinged to the top cover section of its vinyl case. Lift the bottom edge of the calculator and turn the calculator over.
3. Press the RESET button with a pointed object.
4. Enter up to four digits to use as your security code. Memorize the code, or write it down and store it in a safe place. Press  to store the code. The key symbol appears on the display.

To access the memories, enter your code and press . The key sign disappears from the display to show you that the memories are "unlocked."

To change your code, press RESET again, and enter the new code. All data stored in memory is lost; you must re-enter it.

After assigning the security code, read the following sections to learn to use the memories. In the examples, M1 is your checking account, M2 is your regular charge account, and M3 is for tracking household expenses.

# EXAMPLE:

Press   1 2 3 4 

Press 1 2 3 4 


Start the Account calculation/memories

Press 


Press 

Press 1 2 3 4 

## DISPLAY

 0 AM  
12 34.

AM  
12 34.

 0 AM  
0.00

AM  
12 34.

The security code is unlocked. You can check/calculate the account memories.

Unlock the memories before proceeding with the examples on the next pages.

## Confirming the Balances

1. Press **BAL1** to confirm the balance in M1. The display shows 0.00. The memory is ready for use.
2. Press **BAL2** and **BAL3** to confirm that the M2 and M3 balances are also 0.00.

## Checking Account Memory

1. Enter the amount in your checking account.
2. Press **DEP**. The calculator displays your "initial" deposit.
3. Each time you write a check, enter the amount and press **CHK**. The amount is deducted from your balance. Be sure to deduct any applicable per-check service charge. Your resulting balance is displayed.
4. If you attempt an entry that results in an overflow or other error, the E is displayed. Press **C/CE** to cancel the error. The last balance before the error is retained. Press **BAL1** to display this figure.

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Datamath Calculator Museum

## Charge Account Memories

Although referred to as charge account memories, M2 and M3 can be used to track loan balances, budget records or other accounts payable.

1. Confirm each balance as described earlier.
2. Enter your current balance or loan principal.  
Press the appropriate **CHG**.
3. As you make a payment, enter the amount and press the appropriate **PMT**.
4. Use **CHG** to enter any accrued interest charges.

**GT** Grand Total

Press **GT** to obtain an indication of your "net worth." The calculator subtracts the outstanding debts in M2 and M3 from the balance in M1.

## Example:

Record the income in memory 1, and the expenditures in memories 2 and 3.

	Utilities/	Travel/
\$715.26	\$ 22.65	\$11.70
\$ 17.52	\$ 19.70	\$ 5.50
\$ 35.76	\$350.00	\$75.00

Press		Display	Comments	Press		Display	Comments
BAL <sub>1</sub>	CHK	AM <sup>1</sup> 0.00		22.65	AM <sup>2</sup> - 22.65	2 flashes to indicate that the number in memory is negative	
BAL <sub>2</sub>	CHG <sub>2</sub>	AM <sup>2</sup> 0.00	Clears memories	19.70	AM <sup>2</sup> - 42.35		
BAL <sub>3</sub>	CHG <sub>3</sub>	AM <sup>3</sup> 0.00		350.00	AM <sup>2</sup> - 392.35		
715.26		AM <sup>1</sup> 715.26		CHG <sub>2</sub>		Utilities and rent	
DEP							
17.52		AM <sup>1</sup> 732.78	Income				
DEP							
35.76		AM <sup>1</sup> 768.54					
DEP							

Press	Display	Comments
11.70 CHG <sub>3</sub>	AM 3 - 11.70	3 flashes to indicate that the number in memory is negative
5.55 CHG <sub>3</sub>	AM 3 - 17.25	
7.00 CHG <sub>3</sub>	AM 3 - 24.25	Entertainment expenses
75.00 CHG <sub>3</sub>	AM 3 - 99.25	
GT	AM 3 2 1 276.94	Net worth = income minus expenses

### Example:

Press	Display	Comments
BAL <sub>1</sub> CHK	AM 1 0.00	Cleans memories
BAL <sub>2</sub> CHG <sub>2</sub>	AM 2 0.00	
BAL <sub>3</sub> CHG <sub>3</sub>	AM 3 0.00	
1125.00 DEP	AM 1 1125.00	Enters \$1125 into Memory 1; represents the balance in the checking account

Press	Display	Comments
59.22 CHG <sub>2</sub>	AM 2 — 59.22	Enters \$59.22 into Memory 2; represents the balance owed on the first charge account
476.23 CHG <sub>3</sub>	AM 3 — 476.23	Enters \$476.23 into Memory 3; represents the balance owed on the second charge account.

Press	Display	Comments
5.50 CHK	AM 1 11 19.50	Records two checks written
2.50 CHK	AM 1 11 17.00	Display shows balance in checking account after the check entering sequence is complete
25.00 CHG <sub>2</sub>	AM 2 — 84.22	Records a charge to Memory 2.



Press

7.50

PMT<sub>2</sub>

Display

AM

2

- 76.72

Comments

Decreases  
credit  
balance  
by \$7.50.

50.00

PMT<sub>3</sub>

AM

3

- 426.23

Decreases  
credit  
balance  
by \$50.00.

GT

AM

3 2 1

6 14.05

Net worth =  
M1 - M2 - M3

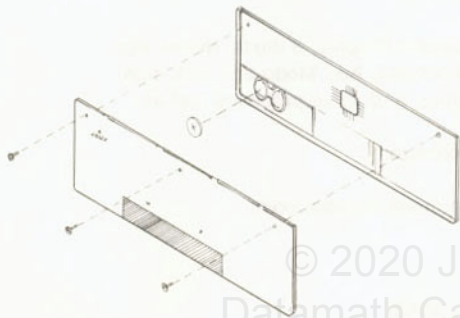
## Battery Replacement

When there is enough light, the solar panel powers the calculator. When there is insufficient light to operate, the internal battery takes over. Therefore, with time, you might someday notice that the display is dark or operation is slow. Either occurrence indicates that the battery needs replacement.

**Caution:** Never leave the calculator in direct sunlight for an extended period of time. Doing so can shorten the life of the solar panel.

To change the battery:

1. Obtain a new battery, Radio Shack Cat. No. 23-117. When you hold the battery, be sure to handle it by the edges to prevent skin oil from getting onto its surface and interfering with proper electrical contact.



2. Press **OFF**

3. Unscrew the three screws along the lower, back edge of the case. Then, stick a pointed object into one of the screw holes to lift off the cover.  
**Caution:** Don't lift off the cover with your finger. The edges of the cover are sharp and could cut you.

4. Insert the tip of a ball-point pen in the slot next to the old battery, and lift the battery out.  
5. Install the new battery with the positive (+) side up.  
6. Dispose of the old battery promptly. Do not incinerate it or allow children to play with it. It can prove fatal if swallowed.  
7. Replace the back cover, and secure it with the three screws.

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## SPECIFICATIONS

Display .....	Multi-digit Liquid Crystal Display, 8 digits, minus sign, overflow, zero suppression, Add Mode and lock sign.
Calculation System .....	Algebraic logical (enter and solve problems just as written)
Capacity .....	8 digits display maximum for all calculation.
Decimal Point .....	Full floating/Adding mode decimal point
Overflow Sign .....	"E" flashing
Memory Sign .....	1, 2, 3
Logic Element .....	MOS LSI
Operating Temperature .....	32°F-140°F (0°C ± 40°C)
Storage Temperature .....	- 13°F-131°F (- 25°C ± 55°C)
Power Supply .....	One button cell battery, Radio Shack Type 389A, Cat. No.23-117.
Dimensions .....	70 × 158 × 6mm (Length × Width × Thickness)
Weight .....	Approx. 2.82 oz. (115g) (with wallet)
Accessory .....	Vinyl Wallet

## RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 1 year from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

*We Service What We Sell*

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