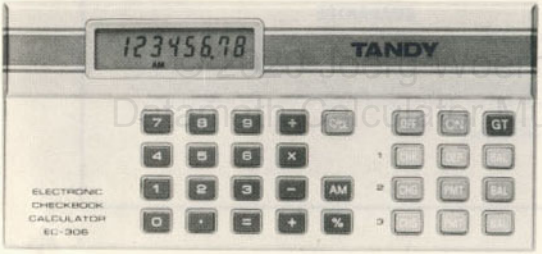
ELECTRONIC CHECKBOOK CALCULATOR



CUSTOM MANUFACTURED IN HONG KONG FOR
TANDY CORPORATION

EC-306

OWNER'S MANUAL

PLEASE READ BEFORE USING THIS EQUIPMENT

TANDY®

CAT. NO.
65-696

GUARANTEE

TANDY offers the following guarantee on the equipment : any defect discovered within 90 days from date of purchase will be repaired without any charge for parts or labour (or at TANDY's option, replaced or the purchase price refunded). Simply deliver the equipment with your receipt to any TANDY shop or authorised dealer. This guarantee does not cover any defect caused by misuse or accidental damage, nor does it cover any cost of delivery or collection. Your receipt is all you need to obtain this FREE SERVICE.

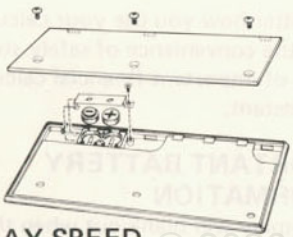
INTRODUCTION

Congratulations! You are the owner of the Checkbook Calculator, a unique product of the electronic age designed to help you keep track of your personal finances. Besides all of the standard calculator features (which allow you to figure interest charges, check bank and charge account statements, balance your household budget and so on) the EC-306 offers a new way to keep or check your personal monetary records. The three continuous memories in your EC-306 can be used to save important balances until the batteries die.

No matter how you use your calculator, enjoy the convenience of safely storing results of important financial calculations in an instant.

IMPORTANT BATTERY INFORMATION

The display will blank out when the Batteries need replacing. Changing the Batteries is a simple task. Remove the Calculator from its pouch by unsnapping the plastic tabs on the back of the Calculator. Unscrew the Battery Compartment Plate and replace the Batteries, with polarity as shown. Use Radio Shack's Alkaline button cell 23-115 or Silver Oxide cell 23-105.



DISPLAY SPEED

The display speed decreases as the temperature of the surrounding air drops. The display does not function properly below 0°C (32°F).

GETTING STARTED

Press ON to turn on the Calculator.

The display shows | AM 0.00 |.

The "AM" displayed means that the calculator decimal setting is in ADD mode.

ADD MODE AM KEY

The AM indicator lights when the decimal system is set in ADD mode. This means that the decimal point is automatically inserted 2 places to the left of entries made for addition or subtraction.

Exception: If you press the decimal point key. [.], ADD mode is overriden and the decimal point is placed at the position you selected. The calculator will require that a decimal point be entered with each number thereafter until AM is reset.

You leave AM mode when you multiply and divide.

ADD mode is designed for adding or subtracting dollars and cents because the decimal point is always maintained at the proper position for entries and results. You may multiply and divide while ADD mode is set; however, notice that the first entry made on x or ÷ has the decimal point placed in the ADD mode position. Subsequent multiplication or division entries have a floating decimal.

Pressing [AM] Key changes the decimal system from a floating decimal to ADD mode and vice-versa. A floating decimal system automatically puts the decimal behind numbers as you key them into the calculator until you press the decimal point key [·]. When [·] is pressed, the decimal point is fixed at that place and further numbers keyed into the calculator during that entry are entered as decimal fractions, to the right of the decimal point.

Press [AM] Key to set the calculator for a floating decimal when performing multiplication, division, or when using the percent key. Addition and subtraction may also be performed with a floating decimal.

C/CE CLEAR KEY

Turning on the calculator clears everything but the memories and the ADD mode decimal setting. The CLEAR Key is labelled CE, an abbreviation for Clear Entry and C, abbreviation for Clear. Here is how it works. Press C/CE once directly following a mistaken number key depression, and the displayed number is erased. Pending calculations and memories are not erased. Press C/CE twice to clear everything in the Calculator except the memories. Press C/CE to clear the E symbol, which lights in the display to signal an error condition. An error condition is caused by dividing a number by zero or calculating an answer too large for the eight digit-display to handle.

OFF SPECIAL OFF CIRCUIT SAVES BATTERY

If you forget to turn off your Calculator, it will automatically turn off after about 9 minutes to conserve energy and extend Battery life.

ADD, SUBTRACT, MULTIPLY, DIVIDE

To perform simple addition, subtraction, multiplication or division, key in the problem as it is written: Enter the first number; press + , − , x , or ÷ . Enter the second number; press = .

NOTE:

To enter a negative number, first press [−] Key and then enter the number. (The Calculator cannot multiply or divide two negative numbers)

PERCENT KEY

The versatile percent key [%], instead can be used to solve the following range of percentage problems.

1. How much is a given percentage of a number?

Example:

Depress 115.00 x 5% to find 5% of $115. Answer: $5.75.

2. Find the percentage one number is of another.

Example:

Depress 100.00 ÷ 200% to find what percent 100 is of 200.
Answer: 50 percent.

3. Find the net amount that results from adding on a given percentage of a number to that number.
Method A: Recommended when you are operating your calculator in ADD mode.

Depress 115.00 x 5% + to find the net amount that results from adding on 5% to $115. Answer: $120.75.
Method B: As you say it.
Depress 115.00 + 5.00% =
to find the net amount that results from adding on 5% to $115.
Answer: $120.75.

4. Find the net amount that results from discounting a number by a given percentage.
Method A: Recommended when you are opening in ADD mode.
Depress 115.00 x 5% −
to find the net amount that results from discounting $115 by 5%.
Answer: $109.25.
Method B: As you say it.
Depress 115.00 − 5.00% =
to find the net amount that results from discounting $115 by 5%.
Answer: $109.25.

CALCULATIONS WITH A CONSTANT

The feature is useful when you have repetitive calculations such as:

5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25

Calculations with a constant multiplicand are performed by keying in the constant value only once, pressing [x]. Continue to enter variable numbers only with [=] as follows:

Example:

Press [AM] to set the floating decimal system. The AM indicator should not be displayed.

Depress: 5 x 2 = (problem performed in standard manner) 3 = 4 = 5 = (variable numbers 3, 4 and 5 are entered on the equals key)

Display shows: 10, 15, 20, and 25 respectively.

The Calculator remembers the number entered on the [x] key (5), so you only need to key it into the Calculator once. After that, just key in the other numbers and press [=]. Calculations with a constant divisor are performed like this:

Key sequence: 20 ÷ 4 =
16 = 12 =
2 =

Display shows: 5, 4, 3, 0.5 respectively.

The Calculator remembers the number entered after the [÷] key (4), so you only need to key it into the Calculator once.

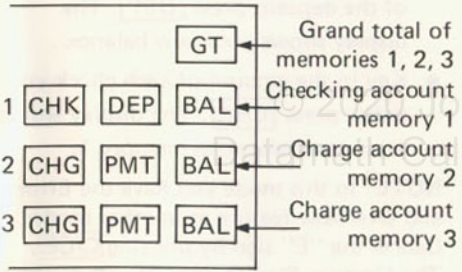
E IN DISPLAY

The 'E', which flashes in the display, indicates that an error or invalid key sequence has been performed. The Calculator keys will not work until [C/CE] is pressed to clear the error condition. The following results and operations cause error.

1. Results greater than 99999999*
2. Division by zero

*When results are greater than 99999999, the eight most significant digits of the results are displayed with the decimal point placed eight places to the left of its true position.

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 above. For example, CHG_2 or PMT_3 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 recordkeeping facilities of your Calculator as a verification of information recorded on paper. Data is retained in the memory until the Batteries need replacing.

TO GET STARTED

Make sure that all the memories are clear.

To clear the three memories, press the keys as shown in the example below:

Press		Display	Comments
BAL_1	CHK	0.00 1	Memory 1 cleared
BAL_2	CHG_2	0.00 2	Memory 2 cleared
BAL_3	CHG_3	0.00 3	Memory 3 cleared

CHECKING ACCOUNT MEMORY

After clearing the memories, key in the amount that you have in your checking account, press DEP

- When you make a deposit into your checking account, key in the amount of the deposit, press DEP. The display shows your new balance.
- Key in the amount of each check you write; press CHK. The display shows your new balance in memory 1.

NOTE: In this mode you have the Error and Overflow feature as in other modes. Cancel the "E" sign by pressing C/CE. The Memory Sign (1, 2 or 3) will disappear, all data will be cleared from that memory except for the last sum before the Overflow. Press BAL to recall this number.

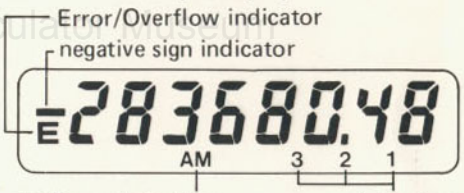
CHARGE ACCOUNT MEMORIES

The charge account memories are designed to keep a record or verification check of your charge accounts, loan balances, or other "accounts payables" you have. These memories may also be used for keeping budget records.

- After clearing the memory, key in the current balance, principal of the loan amount, etc., press [CHG].
- Key in payments as you make them; press [PMT]. The display shows the balance.
- If the record you are keeping is of the interest-bearing type, you must add the interest each period, from your statement to your remaining balance. To do this, key in the interest charge and press [CHG].

When you press a memory key, the related display memory number indicator is displayed, alerting you that your account is overdrawn.

Example display



GT KEY

Press this key to see the sum total or grand total of memories 1, 2 and 3. If you are keeping your checking account records in memory 1, and two charge account records in memories 2 and 3, pressing [GT] shows you your "net worth", that is, amount of money in checking account less amount owed on the two charge accounts.

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

Income	Utilities/ Rent	Travel/ Entertainment
$715.26	$ 22.65	$11.70
$ 17.52	$ 19.70	$ 5.55
$ 35.76	$350.00	$ 7.00
		$75.00

Press		Display		Comments
BAL_1	CHK	0.00		
		AM	1	Clears Memories
BAL_2	CHG_2	0.00		
		AM	2	
BAL_3	CHG_3	0.00		
		AM	3	
715.26				
DEP		715.26		
		AM	1	Income
17.52				
DEP		732.78		
		AM	1	
35.76				
DEP		768.54		
		AM	1	

22.65				2 flashes to indicate that the number in memory is negative.
CHG_2	–	22.65		
		AM	2	
19.70				
CHG_2	–	42.35		
		AM	2	
350.00				Utilities and Rent
CHG_2	–	392.35		
		AM	2	

11.70		
CHG_3	– 11.70	3 flashes to
	AM 3	indicate
5.55		that the
CHG_3	– 17.25	number in
	AM 3	memory is
7.00		negative.
CHG_3	– 24.25	Entertain-
	AM 3	ment
75.00		expenses
CHG_3	– 99.25	
	AM 3	
GT	276.94	Net worth
	AM 3 2 1	= income
		– expenses

Example:

Press		Display	Comments
BAL_1	CHK	0.00	
		AM 1	
BAL_2	CHG_2	0.00	Clears
		AM 2	Memories
BAL_3	CHG_3	0.00	
		AM 3	
1125.00			
DEP		1125.00	Enters
		AM 1	$1125 into memory 1; represents balance in checking account.

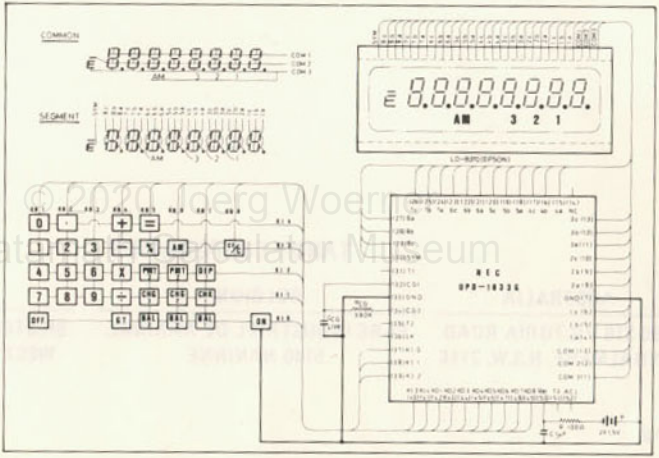
59.22			
CHG_2	– 59.22	Enters	
	AM 2	$59.22 into	
		memory 2;	
		represents	
		balance	
		owed on	
		charge	
		account.	
476.23			
CHG_3	– 476.23	Enters	
	AM 3	$476.23 into	
		memory 3;	
		represents	
		balance owed	
		on charge	
		account.	
5.50			
CHK	1119.50	Records	
	AM 1	two checks	
		written.	
2.50			
CHK	1117.00	Display shows	
	AM 1	balance in	
		checking	
		account	
		after check	
		entering	
		sequence	
		complete.	
25.00			
CHG_2	– 84.22	Records a	
	AM 2	charge to	
		memory 2.	

7.50			
PMT_2	–	76.72	Decreases
	AM	2	credit balance by $7.50.
50.00			
PMT_3	–	426.23	Decreases
	AM	3	credit balance by $50.00.
GT		614.05	Net worth =
	AM	3 2 1	Mem. 1 — Mem. 2 — Mem. 3

SPECIFICATIONS

Display:	Multi-digit liquid crystal display, 8 digits, minus sign, overflow, Zero suppression and Add Mode.
Calculation System:	Algebraic logic (enter and solve problems just as written)
Capacity:	8 digits ÷ 8 digits ≤ 8 digits 8 digits x 8 digits ≤ 8 digits
Decimal Point:	Full floating decimal point
Overflow Sign:	"*E*" flashing
Memory Sign:	1, 2, 3
Calculator Capability:	Addition, subtraction, Multiplication, Division, Mixed calculation, Constant calculation, Powers calculation, Percentage calculation, Add-on/Discount calculation, Memory calculation.
Logic Element:	MOS LSI
Operating Temperature:	32°F ~ 104°F (0°C ~ +40°)
Storage Temperature:	–13°F ~ 131°F (–25°C ~ +55°C)
Power Supply:	Two button cell batteries (Radio Shack Cat. No. 23-115/23-105)
Power Consumption:	60μW (typical)
Dimensions:	6" x 3" x ¼" (154 x 72 x 6 mm) (Length x Width x Thickness)
Weight:	Approx. 2.82 oz. (80g) (with batteries)
Accessory:	Pouch

SCHEMATIC DIAGRAM



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