TEXAS INSTRUMENTS
PRINTER DISPLAY
TI-5045 II
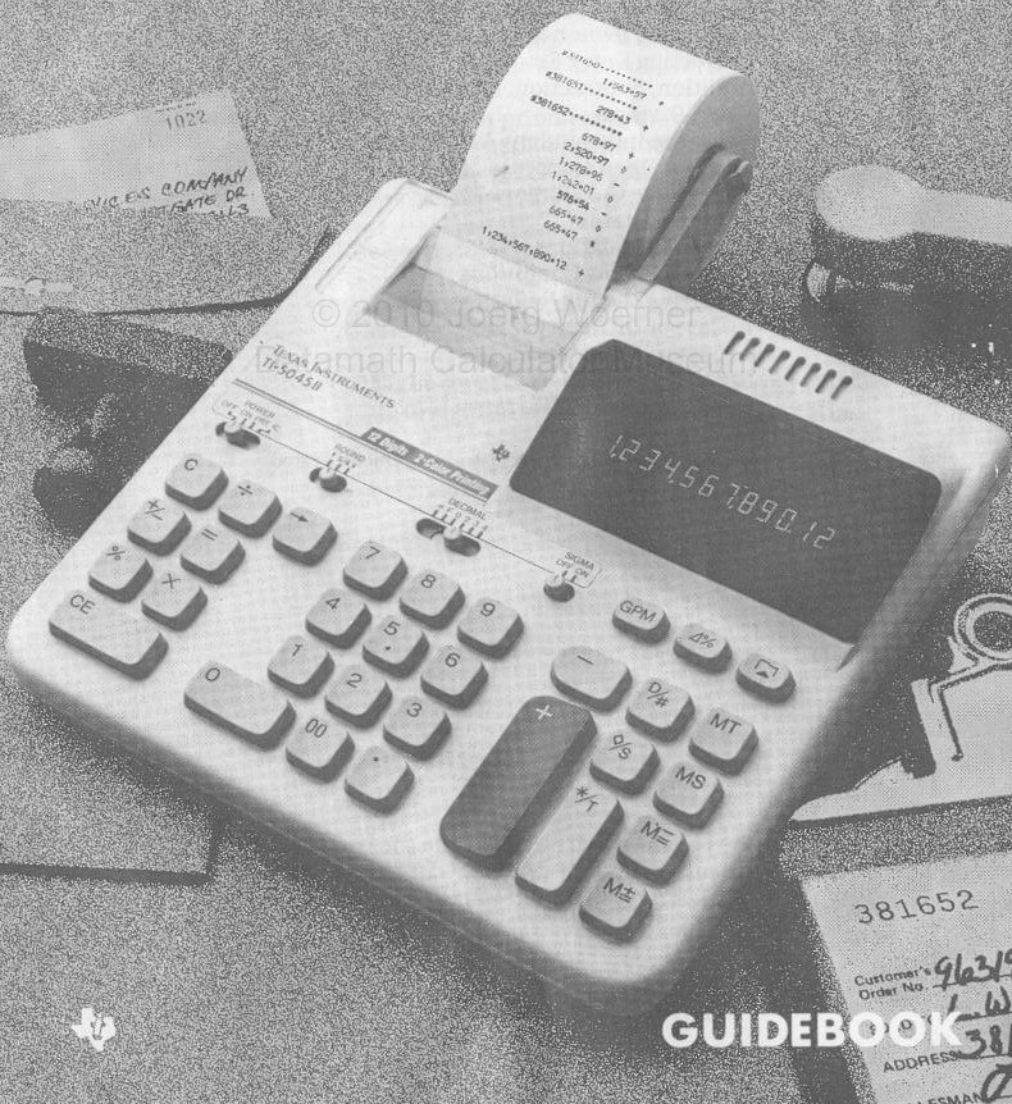
GUIDEBOOK

TI-5045II Guidebook

The TI-5045II printer/display calculator has many functions and capabilities. This manual explains how to use these functions and capabilities efficiently.

Table of Contents

Important

Record the serial number from the bottom of the calculator and the purchase date in the spaces below. Always refer to this information in correspondence.

TI-5045II

Model No.	Serial Number	Purchase Date

Introduction

The TI-5045II printer/display calculator has an easy-to-read display for checking entries and results. The built-in printer lets you keep a permanent record of your calculations. These and other features are explained below.

The Display	The easy-to-read display shows entries and results with up to 12 digits, plus commas and decimals. Negative numbers are displayed with a minus sign ($-$) to the left of the number. When any value other than zero is stored in the calculator's memory, **M** is displayed. The $\leftarrow$ indicator is displayed when an error or overflow condition occurs.
The Printer	The calculator prints numbers with up to 12 digits, plus commas, decimals, and an audit trail. The printer uses a two-color ink roller and a standard 2-1/4 inch roll of plain paper. Negative values are printed in red.
The Keyboard	The keyboard is designed with features such as:

- **Large, contoured keys**—Minimize keystroke errors and fatigue.

- **Eight-level keyboard buffering**—Allows you to press up to eight keys while the printer is operating.

- **Two-key rollover**—Allows you to press a second key before releasing the previously pressed key.

Special Features

This calculator includes several special features:

- Independent add register

- Four-function memory

- Gross profit margin key

- Percent change key

- Item counter

- Automatic constant

- Selectable **SIGMA** switch

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Installing the Paper

Before you operate the calculator, remove any protective shipping materials and install the roll of paper included with your calculator. The roll needs to be replaced when a continuous stripe appears on the paper, indicating that only a few feet of paper remain on the roll. Be sure to use quality bond paper.

Procedure: Installing the Paper

To install the 2–1/4 inch roll of printing paper:

1. Remove the clear plastic printer-compartment cover.

2. Slide the prongs of each paper-holder arm into the slots at the back of the calculator. Then replace the printer-compartment cover.

3. Plug the power cord into any convenient 110-volt electrical outlet.

4. Set the **POWER** switch to **ON**.

5. Cut the end of the paper squarely. Then hold the paper so that it unrolls from the bottom, and insert the end of the paper firmly into the paper slot on the back of the calculator between the paper-holder arms.
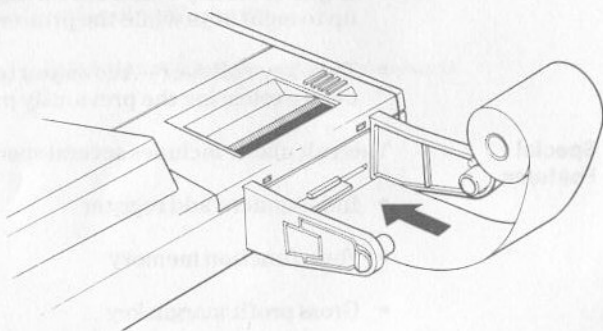

6. Press ▲ until the paper is in printing position.

7. Place the roll of printing paper on the paper-holder arms. Use quality bond paper to avoid paper jams.

8. Set the **POWER** switch to **PRT** or **IC**.

Note: To prevent damage to the printer (which may void the warranty), set the **POWER** switch to **ON** when you operate the calculator without paper.

During calculations, symbols are printed to the right of entries. Negative entries and negative results are printed in red. Refer to Error/Overflow Conditions for information on other symbols.

Symbol	Meaning
+	Addition to the independent add register
−	Subtraction from the independent add register
×	Multiplication operation
÷	Division operation
=	Completion of a multiplication or division operation
◇	Subtotal of entries in the independent add register
*	Result after ⊒, %, or */T is pressed
M+	Addition to memory
M−	Subtraction from memory
M◇	Memory subtotal
M*	Memory total
GM	Item cost in a gross profit margin (GPM) calculation
%	Percentage
+%	Percentage add-on
−%	Percentage discount
Δ	Original value in a percentage change calculation
Δ%	Percentage change
Δ*	Numeric difference between original value and new value in a percentage change calculation, and profit or loss amount in a GPM calculation
#	Precedes a non-add entry
C	Clear key (C) was pressed

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Key Descriptions

| | | | | | | | GPM | Δ% | ⌧ |

C	÷	→	7	8	9	−	D/#	MT
+/−	=		4	5	6	+	%/s	MS
%	×		1	2	3		*/T	M=
CE		0	00	·				M±
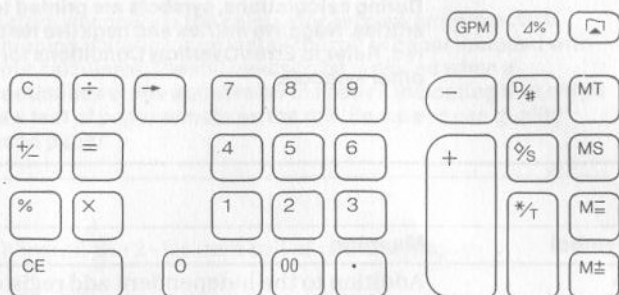
C	**Clear Key**—Clears the display, the independent add register, any pending operation, and any error or overflow condition. Does not clear the memory. (pages 8, 14, 16)
+/−	**Change Sign Key**—Changes the sign (+ or −) of the displayed number. (pages 9, 15)
%	**Percent Key**—Instructs the calculator to interpret the number in the display as a percentage. Completes a multiplication or division operation. (page 12)
CE	**Clear Entry Key**—Clears an entry, enabling you to enter another number in its place. Also clears an error or overflow condition. Note that this key does not clear the independent add register or any pending operation. (pages 8, 16)
÷	**Divide Key**—Instructs the calculator to divide the number in the display by the next value entered. (pages 9, 13)
=	**Equals Key**—Completes any pending multiplication, division, percent change (Δ%), or gross profit margin (GPM) operation, but does not add the result to the independent add register.
×	**Multiply Key**—Instructs the calculator to multiply the number in the display by the next value entered. (pages 9, 11)
→	**Right Shift Key**—Removes the last digit entered in the display and shifts the remaining digits one space to the right. This lets you make corrections without clearing the entire number. (page 8)
0 - 9 , 00	**Number Keys**—Enter numbers containing up to 12 digits. For numbers between 1 and −1, a zero automatically precedes the decimal, allowing a maximum of 11 digits to the right of the decimal.

⌐·⌐	**Decimal Point Key**—Enters a decimal point. If you do not enter a decimal point, the calculator automatically places a decimal point to the right of an entered number.
GPM	**Gross Profit Margin Key**—Calculates the selling price and profit (or loss) amount on an item when its cost and gross profit (or loss) margin are known. (page 15)
−	**Subtract Key**—Subtracts the number in the display from the independent add register. (pages 9, 12)
+	**Add Key**—Adds the number in the display to the independent add register. (pages 9, 12)
Δ%	**Percent Change Key**—Computes the percentage of change between two values. (pages 12–13)
D/#	**Non-Add Key**—Prints a reference number or date without affecting calculations in progress. The number is printed at the left of the paper. You can enter decimal points to separate parts of the number; for example, when you want to print a date. (page 10)
◇/S	**Subtotal Key**—Displays and prints the current value in the independent add register, but does not affect the contents of the independent add register. (pages 6, 9)
*/T	**Total Key**—Displays and prints the total in the independent add register, and then clears the register. Also resets the item counter to zero. (pages 6, 8, 9)
▲	**Paper Advance Key**—Advances the paper one line without printing anything or affecting your calculation. (page 2)
MT	**Memory Total Key**—Displays and prints the value currently in memory, and then clears the memory. Also clears the M indicator from the display and resets the memory item count to zero. (page 11)
MS	**Memory Subtotal Key**—Displays and prints the value currently in memory without clearing the memory. (page 11)
M≡	**Subtract from Memory Key**—Prints the number in the display and subtracts it from the memory. If a multiplication or division operation is pending, pressing M≡ completes the operation and subtracts the result from memory. (page 11)
M±	**Add to Memory Key**—Prints the number in the display and adds it to the memory. If a multiplication or division operation is pending, pressing M± completes the operation and adds the result into memory. (page 11)

Setting the Switches

The four switches at the top of the keyboard let you vary the operation of the calculator to suit the needs of various applications. Each switch is described on these two pages.

Setting the POWER Switch

The **POWER** switch has four positions: **OFF**, **ON**, **PRT**, or **IC**. You can change the setting of this switch at any time.

OFF—The calculator is turned off. The memory and all entered values are cleared.

ON—Calculations are displayed but not printed. When you first set the switch to **ON**, 0. is displayed.

PRT—An audit trail of your entries, operations, and results is printed, but the item counter is off.

IC—Both the printer and the item counter are active. The item count (total number of additions to and subtractions from the independent add register) is printed when you press ⃞◌/S, ⃞*/T, ⃞MS, or ⃞MT. Pressing ⃞*/T or ⃞MT also clears the item counter.

When the **POWER** switch is set to **IC**, the **SIGMA** switch should be set to **OFF**. This ensures that the item count reflects only the total number of additions to and subtractions from the independent add register.

Setting the ROUND Switch

The **ROUND** switch rounds the result of a calculation to the number of decimal places you selected with the **DECIMAL** switch setting.

▼ —Results are rounded down to the selected number of decimal places.

5/4—Results are rounded up or down according to the value. For example, if the **DECIMAL** switch is set to **2**, a result is rounded up if the value in the third decimal position is 5 or more and rounded down if it is 4 or less.

▲ —Results are rounded up to the selected number of decimal places.

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Setting the DECIMAL Switch

The **DECIMAL** switch lets you select the number of decimal places to be displayed and printed in the results of calculations.

Add mode (+)—In addition and subtraction, automatically enters a decimal point to the left of the last two digits entered, unless you enter a decimal point. In multiplication and division, you must enter the decimal point. All results are displayed and printed with two decimal places.

Floating-decimal mode (F)—Allows the number of decimal places to vary, depending on the result of the calculation.

Fixed-decimal mode (0, 2, 3, 4)—Sets the number of decimal places to 0, 2, 3, or 4. Results of calculations are rounded up or down (according to the **ROUND** switch setting) to the number of decimal places you select.

- If a result contains **more** than the selected number of decimal places, the result is rounded.

- If a result contains **fewer** than the selected number of decimal places, trailing zeros are added.

Setting the SIGMA Switch

This switch lets you select whether or not the results of multiplication and division operations are automatically summed to the independent add register.

- **OFF**—The results of multiplication and division operations are kept separate from the independent add register.

- **ON**—The results of multiplication and division operations are automatically summed to the independent add register.

Correcting Entry Errors

You can always correct an entry error by pressing $\boxed{C}$ to clear the calculator and begin again. Many times, however, you can use one of the correcting techniques illustrated on this page to correct an entry error. Keep in mind that the item counter keeps track of all entries to the independent add register, including unintentional ones.

Example:
Correcting
Errors

$49.01 + 16.55 + 25.45 = 91.01$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print
$\boxed{C}$	0.	0. C
49.01 $\boxed{+}$	49.01	49.01 +
15.55	15.55	
$\boxed{CE}$†	0.	
16.555	16.555	
$\boxed{\rightarrow}$††	16.55	
$\boxed{+}$	65.56	16.55 +
24.55 $\boxed{+}$	90.11	24.55 +
$\boxed{-}$†††	65.56	24.55 −
$\boxed{*/T}$	65.56	65.56 *
$\boxed{+}$††††	65.56	65.56 +
25.45 $\boxed{+}$	91.01	25.45 +
$\boxed{*/T}$	91.01	91.01 *

† Pressing $\boxed{CE}$ clears an incorrect entry if no operation key was pressed.

†† Pressing $\boxed{\rightarrow}$ clears the right-most digit if no operation key was pressed.

††† Pressing the opposite operation key cancels an incorrect entry if an operation key was pressed. (Applicable only when you are performing calculations in the independent add register.)

†††† Pressing $\boxed{+}$ restores the value to the independent add register if $\boxed{*/T}$ was pressed by mistake.

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Addition, Subtraction, Multiplication, and Division

When the SIGMA switch is set to OFF, the independent add register keeps addition and subtraction entries separate from multiplication and division entries. If the POWER switch is in the IC position, the number of entries in the independent add register is printed when you press ◇/S or */T.

Example:
Addition and
Subtraction

$12.41 - 3.95 + 5.40 + 5.40 - .33 - .93 = 18.00$

Switches: POWER (IC), ROUND (5/4), DECIMAL (+), SIGMA (OFF)

Enter/Press	Display	Print
C	0.	0. C
1241 +	12.41	12.41 +
395 −	8.46	3.95 −
◇/S		002........
	8.46	8.46 ◇
540 +	13.86	5.40 +
+	19.26	5.40 +
◇/S		004........
	19.26	19.26 ◇
33 −	18.93	0.33 −
93 −	18.00	0.93 −
*/T		006........
	18.00	18.00 *

Example:
Multiplication
and Division

$11.32 \times (-6) \times (-5.04) \div 2 = 171.1584$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print
C	0.	0. C
11.32 ×	11.32	11.32 ×
6 +/− ×	−67.92	−6. ×
5.04 +/− ÷	342.3168	−5.04 ÷
2 =		2. =
	171.1584	171.1584 *

Using the Independent Add Register

Usually, the SIGMA switch is set to OFF so that the independent add register stores results of addition and subtraction calculations separately from the results of multiplication and division calculations. However, you might set the SIGMA switch to ON for applications such as invoice extensions.

Example:
Sum of Products

If you set the SIGMA switch to ON, the results of multiplication and division calculations are automatically summed to the independent add register.

A partial inventory list, including the part number, quantity, and price of each item, is given below. Find the value of the items. The date is December 24, 1990.

Part Number	Quantity	Price
61039	1,000	$.05 each
62148	3,200	$.14 each

Use the [D/#] key to print the part numbers and to date your tape for future reference.

Switches: POWER (PRT), ROUND (5/4), DECIMAL (2), SIGMA (ON)

Enter/Press	Display	Print
[C]	0.	0. C
61039 [D/#]	61,039.	#61039 . . . . . .
1000 [×]	1,000.	1,000. ×
.05 [=]		0.05 =
	50.00	50.00 +
62148 [D/#]	62,148.	#62148 . . . . . .
3200 [×]	3,200.	3,200. ×
.14 [=]		0.14 =
	448.00	448.00 +
[*/T]	498.00	498.00 *
12.24.90 [D/#]	12.2490	#12.24.90 . . .

The value of the first group is $50, and the value of the second group is $448. The total cost is $498.

Memory Operations

You can use the calculator's memory to solve problems that require you to store the result of one calculation while obtaining another. You can also use the memory register to perform one set of calculations while using the independent add register for other calculations. To clear the memory and the M indicator from the display, press [MT].

Example: **Memory** **Operations**	You want to purchase quantities of several different items: 5 items at \$4.95, 3 items at \$10.50, and 7 items at \$7.25. After multiplying the number of items by the cost of each item and adding each one to memory, you calculate a subtotal to see the amount of your order. You decide not to order the last item. Subtract it and find the total amount of your order.

Switches: POWER (PRT), ROUND (5/4), DECIMAL (2), SIGMA (OFF)

Enter/Press	Display	Print	
[MT] †	0.00	0.00	M*
[C]	0.	0.	C
4.95 [×] 5 [M±]		4.95	×
		5.	=
	M 24.75	24.75	M+
10.50 [×] 3 [M±]		10.50	×
		3.	=
	M 31.50	31.50	M+
7.25 [×] 7 [M±]		7.25	×
		7.	=
	M 50.75	50.75	M+
[MS]	M 107.00	107.00	M◊
7.25 [×] 7 [M⊟]		7.25	×
		7.	=
	M 50.75	50.75	M−
[MT]	56.25	56.25	M*

† Pressing [MT] prints the current memory total (which may not be 0.00 as shown) and clears the memory.

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Percentage Calculations

The percent key % lets you calculate percentages and percentage ratios. If you follow a percentage calculation with the + or − key, you can calculate an add-on or discount. To calculate a percentage ratio, use % to complete a division problem. The Δ% key lets you calculate the percentage of change between two values.

Example:
Calculating a
Percentage

$49.00 \times 15\% = \$7.35$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (2), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
49 ×	49.	49.	×
15 %		15.	%
	7.35	7.35	*

Example:
Calculating an
Add-On

$1,450 + 15\%$ add-on $= 1,667.5$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
1450 ×	1,450.	1,450.	×
15 %		15.	%
	217.5	217.5	*
+	1,667.5	1,667.5	+%

Example:
Calculating a
Discount

$69.95 - 10\%$ discount $= 62.955$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
69.95 ×	69.95	69.95	×
10 %		10.	%
	6.995	6.995	*
−	62.955	62.955	−%

Example: Calculating a Percentage Ratio	29.5 is what percent of 25?

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
29.5 ÷	29.5	29.5	÷
25 %		25.	%
	118.	118.	*

Procedure: Calculating a Percentage Change

To find the percentage change between two values:

1. Enter the original value and press △%.

2. Enter the new value and press =.

Example: Calculating a Percentage Change

If a price has gone from $9.75 to $11.25, calculate the percentage increase in the price.

Switches: POWER (PRT), ROUND (5/4), DECIMAL (2), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
9.75 △%	9.75	9.75	△
11.25 =		11.25	=
		1.5	△*
	15.38	15.38	△%

$1.50 is the amount of the price increase, and 15.38% is the percentage increase in the price.

Using Constants

The automatic-constant feature lets you multiply or divide a series of numbers by a constant value. The constant is set when you perform the first calculation in a series.

Example: Multiplying a Constant

The first number that you enter in a multiplication problem is used as the constant multiplier.

$$5 \times 3 = 15, \quad \underline{5} \times 4 = 20$$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
5 ×	5.	5.	×
3 =		3.	=
	15.	15.	*
4 =		4.	=
	20.	20.	*

Example: Dividing by a Constant

The second number that you enter in a division problem is used as the constant divisor.

$$66 \div 3 = 22, \quad 90 \div \underline{3} = 30$$

Switches: POWER (PRT), ROUND (5/4), DECIMAL (F), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
66 ÷	66.	66.	÷
3 =		3.	=
	22.	22.	*
90 =		90.	=
	30.	30.	*

Clearing a Constant

You can clear a constant by starting a new calculation or by pressing C to clear the calculator.

The gross profit margin key GPM calculates the selling price and profit (or loss) amount of an item when the cost and the profit or loss margin (based on the selling price) are known.

Procedure

To calculate margin problems:

1. Enter the cost and press GPM.

2. Enter the profit or loss margin. Be sure to enter the loss margin as a negative number.

3. Press =.

Example 1

An item costs you $65.00, and you would like to earn a 40% profit. Calculate the selling price of the item.

Switches: POWER (PRT), ROUND (5/4), DECIMAL (2), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
65 GPM	65.	65.	GM
40 =	40.	40.	%
		43.333333333	Δ*
	108.33	108.33	*

$43.33 is the amount of profit, and $108.33 is the selling price.

Example 2

An item costs you $35,000. You must sell it at a 33.3% loss. Calculate the selling price.

Switches: POWER (PRT), ROUND (5/4), DECIMAL (2), SIGMA (OFF)

Enter/Press	Display	Print	
C	0.	0.	C
35000 GPM	35,000.	35,000.	GM
33.3 +/− =		−33.3	%
		−8,743.435859	Δ*
	26,256.56	26,256.56	*

$8,743.44 is the amount of loss, and $26,256.56 is the selling price.

Error/Overflow Conditions

Indicators appear in the display and are printed to indicate error and overflow conditions.

Error-Causing Conditions

An error will result if you:

- Attempt to divide by zero.

- Calculate a result with more than 12 digits to the left of the decimal.

- Calculate a result in memory with more than 12 digits to the left of the decimal.

Error Indicators

If you attempt to divide by zero, a row of decimals and 0. * are printed. The ← indicator and 0. are displayed.

Overflow Indicators

When an addition, subtraction, multiplication, or division overflow occurs:

- The calculator prints a row of decimals and the first 12 digits of the answer with a decimal 12 places to the left of its correct position, followed by an asterisk.

- The display shows ← and the first 12 digits of the answer with a decimal point 12 places to the left of its correct position.

Clearing an Error/Overflow Condition

| To clear:	Press:
An error/overflow condition, the display, the independent add register, and any pending operation, but not the memory.	C
A multiplication or division error/overflow condition and any pending operation, but not the independent add register or the memory.	CE
An addition or subtraction overflow condition and the entry that caused the condition, but not the independent add register or the memory.	CE
Only the entry that caused a memory error or overflow condition, but not the memory contents.	C or CE

Replacing the Ink Roller

You can usually obtain ink rollers and 2–1/4 inch rolls of
quality bond paper at the store where you purchased your
calculator. Instructions for replacing the ink roller are given
below. Refer to page 2 for instructions on installing the paper.

**Procedure:
Replacing the
Ink Roller**

If the printing becomes faint, the ink roller may need to
be replaced. To install a new ink roller:

1. Set the **POWER** switch to **OFF**.

2. Remove the printer-compartment cover by pressing
   down on the cover and sliding it back and away from
   the calculator.

3. Remove the old ink roller by gently lifting the tab on
   the left side of the roller where it is labeled **PULL UP**.
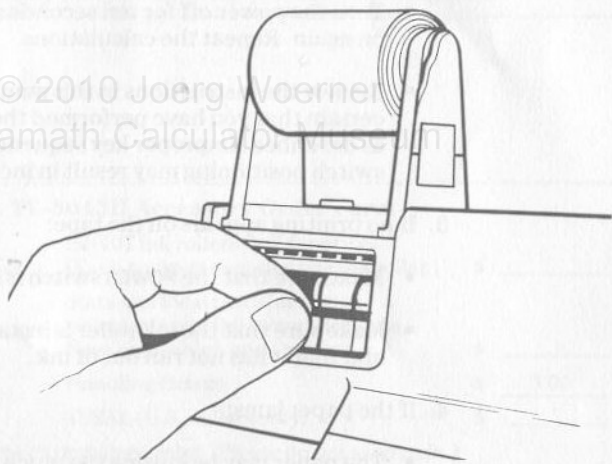
4. Position the new ink roller in the compartment and
   gently press it down until it snaps into place on both
   sides.

5. Replace the printer-compartment cover.

   Warning: Never attempt to refill or moisten the old ink
   roller. This may damage the printing mechanism and void
   the warranty.

In Case of Difficulty

The following procedures can help resolve difficulties you may experience while operating the calculator.

Procedures

1. Be sure that the power cord is properly connected and that the **POWER** switch is set to **ON**, **PRT**, or **IC**. An inoperative outlet is sometimes the reason the calculator does not work.

2. If the difficulty involves calculation errors or the calculator does not respond to keyboard entries:

   - Press C to clear the calculator. The calculator should display **0.** and print **0. C**. Check the switch settings and repeat your calculation.

   - Turn the power off for ten seconds and then back on again. Repeat the calculations.

   - Review the instructions in this manual to be certain that you have performed the calculations as described. Improper key sequences or improper switch positioning may result in incorrect answers.

3. If no printing appears on the tape:

   - Make sure that the **POWER** switch is set to **PRT** or **IC**.

   - Make sure that the ink roller is installed correctly and that it has not run out of ink.

4. If the paper jams:

   - The paper may be curling too much if it is close to the end of the roll. Install a new roll of paper.

   - Make sure that you are using quality bond paper.

   If these procedures do not correct the difficulty, refer to "Service Information."

Accessory Order Form

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Datamath Calculator Museum

TI–5045II Accessory Order Form

Please send me:

Quantity		
	IR–40T ink rollers (call for price) (Each package contains one ink roller.)	$ _____
	State and local taxes (all states except Alaska, Delaware, Montana, New Hampshire, and Oregon)	$ _____
	Handling charge	$ 3.00
	TOTAL (U.S. dollars only)	$ _____

☐ I am enclosing a check or money order. (Please do not send cash.)

☐ Bill to my: ☐ MasterCard ☐ Visa

_____   _____
·Number   Expiration date

_____
Signature

☐ Please ship C.O.D. (C.O.D. charges will be added.)

_____   _____
Name   Address

_____   _____
City   State   Zip

Service Information

If the solutions suggested by "In Case of Difficulty" do not
correct a problem, please call or write Consumer Relations to
discuss the problem.

For Service and General Information

If you have questions about service or the general use of
your calculator, please call Consumer Relations at:

1–806–747–1882

Please note that this is a toll number, and collect calls are
not accepted.

You may also write to the following address:

Texas Instruments Incorporated
Consumer Relations
P.O. Box 53
Lubbock, Texas 79408

Please contact Consumer Relations:

- Before returning the calculator for service.
- For general information about using the calculator.

Express Service

Texas Instruments offers an express service option for
fast return delivery. Please call Consumer Relations for
information.

This digital apparatus does not exceed the Class B limits
for radio noise emissions from digital apparatus set out in
the Radio Interference Regulations of the Canadian
Department of Communications.

Returning Your Calculator for Service	A defective calculator will be either repaired or replaced with the same or comparable reconditioned model (at TI's option) when it is returned, postage prepaid, to a Texas Instruments Service Facility.

Texas Instruments cannot assume responsibility for loss or damage during incoming shipment. For your protection, carefully package the calculator for shipment and insure it with the carrier. Be sure to enclose the following items with your calculator:

- Your full return address
- A daytime phone number
- Any accessories related to the problem
- A note describing the problem you experienced
- A copy of your sales receipt or other proof of purchase to determine warranty status

Please ship the calculator postage prepaid; COD shipments cannot be accepted.

In-Warranty Repair	For a calculator covered under the warranty period, no charge is made for service.
Out-of-Warranty Repair	A flat-rate charge by model is made for out-of-warranty service. To obtain the service charge for a particular model, call Consumer Relations **before** returning the product for service. (We cannot hold products in the Service Facility while providing charge information.)

Texas Instruments Service Facilities

U.S. Residents (U.S. Postal Service)
Texas Instruments
P.O. Box 2500
Lubbock, Texas 79408

U.S. Residents (other carriers)
Texas Instruments
2305 N. University
Lubbock, Texas 79408

Canadian Residents Only
Texas Instruments
41 Shelley Road
Richmond Hill, Ontario, Canada L4C 5G4

One-Year Limited Warranty

This Texas Instruments electronic calculator warranty extends to the original consumer purchaser of the product.

Warranty Duration

This calculator is warranted to the original consumer purchaser for a period of one (1) year from the original purchase date.

Warranty Coverage

This calculator is warranted against defective materials or workmanship. **This warranty is void if the product has been damaged by accident, unreasonable use, neglect, improper service, or other causes not arising out of defects in material or workmanship.**

Warranty Disclaimers

Any implied warranties arising out of this sale, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the above one-year period. Texas Instruments shall not be liable for loss of use of the calculator or other incidental or consequential costs, expenses, or damages incurred by the consumer or any other user.

Some states do not allow the exclusion or limitations of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you.

Legal Remedies

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

Warranty Performance

During the above one-year warranty period, a defective TI calculator will either be repaired or replaced with a reconditioned comparable model (at TI's option) when the product is returned, postage prepaid, to a Texas Instruments Service Facility.

The repaired or replacement calculator will be in warranty for the remainder of the original warranty period or for six months, whichever is longer. Other than the postage requirement, no charge will be made for such repair or replacement.

Texas Instruments strongly recommends that you insure the product for value prior to mailing.