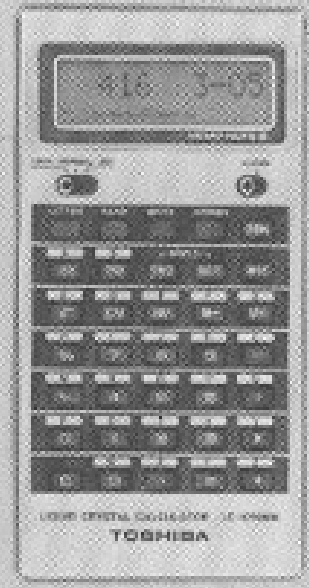
TOSHIBA ELECTRONIC MEMO NOTE III
LIQUID CRYSTAL CALCULATOR

MODEL
MODELE
MODELL
MODELO

LC-1019MN

INSTRUCTION MANUAL
MANUEL D'UTILISATION
BEDIENUNGSANLEITUNG
MANUAL DE INSTRUCCIONES

The space below is provided to record the Serial Number of this unit.
The Serial Number can be found on the rating label.
Model No. LC-1019MN
Serial No._____
Retain this information for future reference.



ENGLISH

WELCOME TO THE MEMO NOTE III !

Thank you for purchasing this Toshiba Electronic Memo Note LC-1019MN composite clock calculator. Your model has a host of new functions and features. In addition to the conventional 10-digit capacity 1-memory liquid crystal display calculator, this model has a clock (including world time) function, and information can be stored and held until recall using both letters (26) in the alphabet and numerals. Also, if the time is set with the information, an alarm will sound at the preset time and the content of the information is simultaneously displayed. In other words, what you have bought is a calculator with the world's first memo note enabling 30 alarm times to be set.

Main features

1. The LC-1019MN memorizes and holds up to 30 information items, with a single item being composed of up to 10 alphabetic characters followed by 10 numerical digits, for about a year.
2. Information can be extended up to four times the 10 alphabetic characters followed by 10 numerical digits or up to 10 alphabetic characters followed by four times the 10 numerical digits.
3. The information is both entered and read out using the calculator keys, and it can be both erased or modified as required.
4. The alphabetic character information is indicated in segments on the same panel as that used by the numerical data. Refer to page 10 for the actual characters.
5. It is possible to enter in the hyphen symbol [—] as information and it is also indicated on the display.
6. The month, day, hours, minutes, AM/PM and days of the weeks are displayed and the seconds are indicated by a winking function.
7. The time function comes with an automatic calendar so that there is no need to make adjustment at the end of the month.
8. The world time function allows the time in principal cities all over the world to be indicated at the push of a key.
9. The following information, for instance, can be stored: The names of people and their telephone numbers, the names of banks and the deposited balances, the names of stocks and their value, the names of people and their dates of birth, passport numbers, cash card numbers, golf scores, exchange rates, the times medicine should be taken, the times and places of meetings, etc.

10. The calculator has a 10-digit capacity and a memory. Calculations which can be performed include square root, and percent using the special keys, and there is also a [+/-] (sign change) key. The CMOS LSI and liquid crystal display combine to reduce power consumption so that the model can be used on its batteries continuously for about a year.

Please read this instruction manual carefully as it contains useful information relating to the principles of operation and application of the LC-1019MN. Make sure that you understand the functions and comply with the cautions listed when using the model.

CONTENTS

PRECAUTIONS

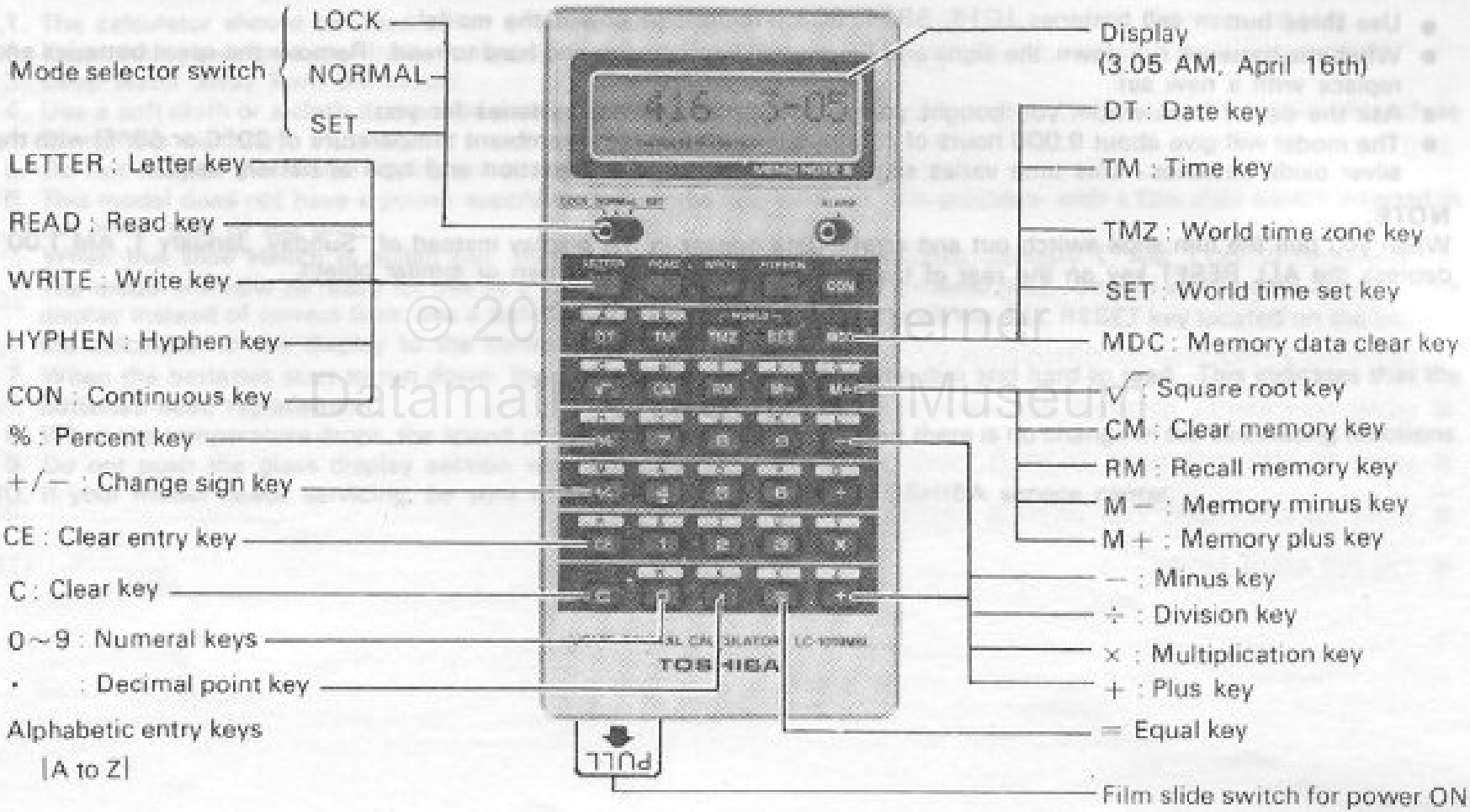
1. The calculator should be used at an ambient temperature ranging from 0°C to +40°C (32°F to 104°F).
2. Keep the calculator away from moisture, dust and high temperatures and do not expose it to direct sunlight.
3. Keep water away from the model.
4. Use a soft cloth or a cloth dampened with a synthetic detergent to clean the model. Do not use volatile liquids such as thinners or benzine.
5. Do not subject the model to impact or shock.
6. This model does not have a power supply switch on the keyboard but it is provided with a film slide switch inserted in the lower part of the unit.
   When this slide switch is pulled out, the power is turned on and "Sunday, January 1, AM 1.00" is displayed. The model will now be ready for use as a calculator and also for use as a memo note. Should erratic data appear in the display instead of correct time, use a ball-point pen or similar object to push the ALL RESET key located on the back of the calculator to the display to the correct time before operation.
7. When the batteries start to run down, the signs and figures will become dim and hard to read. This indicates that the batteries need replacement.
8. When the temperature drops, the speed of indication may slow down but there is no change in the calculating functions.
9. Do not push the glass display section with force since it may break.
10. If your model needs servicing, be sure to take it to an authorized TOSHIBA service center.

POWER SUPPLY

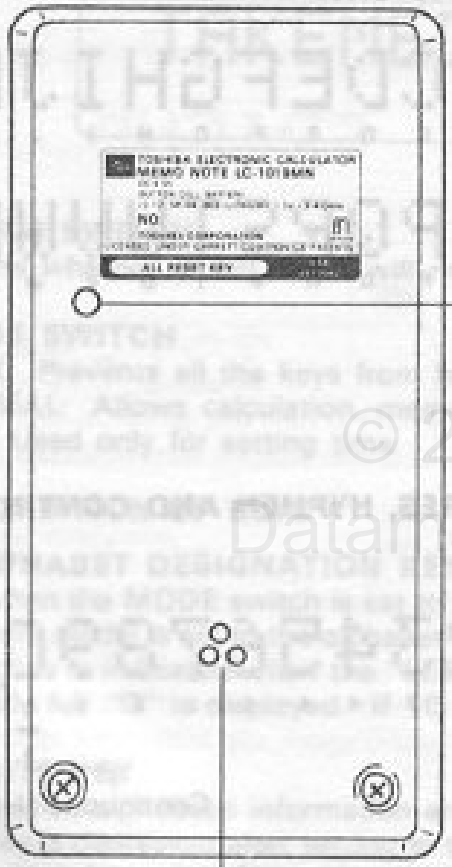
- Use three button cell batteries [G13, SR44, 803 (lithium)] to power the model.
- When the batteries run down, the signs and figures will become dim and hard to read. Remove the spent batteries and replace with a new set.
- Ask the dealer from whom you bought your model to replace the batteries for you.
- The model will give about 9,000 hours of continuous operation (at an ambient temperature of 20°C or 68°F) with the silver oxide batteries. This time varies slightly depending on the operation and type of battery used.

NOTE:
When you pull the film slide switch out and erratic data appear in the display instead of "Sunday, January 1, AM 1.00", depress the ALL RESET key on the rear of the model using a ball-point pen or similar object.

KEYBOARD AND DESCRIPTION OF KEYS



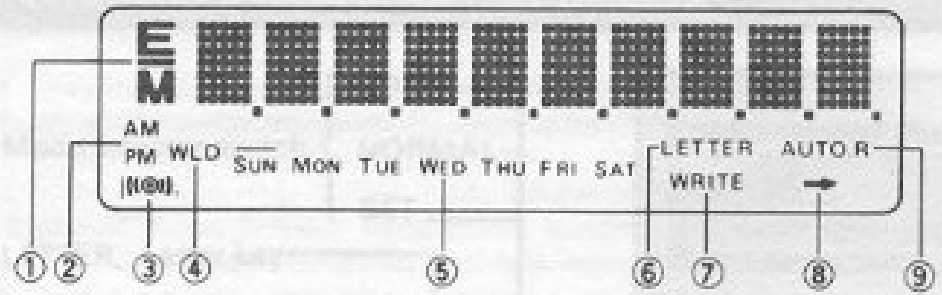
(Rear side of model)



ALL RESET key

- Depress this key with a ball-point pen or similar object when cleaing all the contents of all 30 independent memories or setting the correct time when the power is turned on.

■ DISPLAY PANEL

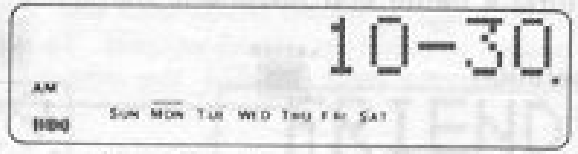


① E : Error sign
— : Minus sign
M : Memory sign
② AM/PM sign
③ ALARM symbol
④ WORLD TIME sign
⑤ Days of the week
⑥ This appears in the alphabetic mode (= alphabetic mode sign, second function designation sign).
⑦ This appears in the write mode (= write mode sign).
⑧ This arrow appears with data extension (when [CON] key has been depressed).
⑨ This appears in the automatic read mode (= automatic read mode sign).

■ DISPLAY (APPEARANCE OF ALPHABETIC CHARACTERS)

(FIGURES, HYPHEN AND CONTINUOUS SIGN)

Example: Take medicine at AM 10.30. Display appears as [TAKEMEDCIN]



In other words, take the medicine at AM 10.30.

■ ALARM SWITCH

Selects whether or not alarm will ring at preset time.

■ MODE SWITCH

LOCK: Prevents all the keys from being depressed and allows the time to be displayed.
NORMAL: Allows calculation, memo write and readout operations.
SET: Used only for setting time.

■ DESCRIPTION OF KEYS

LETTER

ALPHABET DESIGNATION KEY (LETTER KEY)

Works when the MODE switch is set to the NORMAL position. When this key is depressed and "LETTER" appears on the display, the model is set to the alphabet mode and it is possible to enter up to 10 alphabetic letters. The remaining number of memories is indicated when the "LETTER" appears on the display. When completely clear "30" is displayed and when completely full "0" is displayed. If 10 memories are being used and 20 remain, "20" is displayed.

WRITE

WRITE KEY

- Used when alphabetic information and numerical information are to be written into the electronic memo and stored. If this key is depressed after setting to the alphabetic mode, the model is set to the write mode and "WRITE" appears. To store the information, first write the alphabetic information, then the numerical information or the time information, and this completes the operations in this mode. If alphabetic information has already been written by entry in the alphabet mode, the following information is displayed and it can be written in.

- It is also possible to calculate when "WRITE" appears.

Example: Writing a name and telephone number "FRIEND 321-4567".

READ

READ KEY

Used for reading out information already stored in the electronic memory.

There are two forms of readout:

1. There is the type where the memorized alphabet information is designated, this key is depressed, and numerical information or time information is read out.
2. There is the type where automatic readout recalls the stored information in order from the first item. With this type, the first item of stored information is displayed with the first push of the key but with the second push the rest of the information items are displayed automatically in succession. When the key is depressed again, the automatic readout stops.

In addition to these two forms, there is:

Readout with the MODE switch at NORMAL

- If this key is depressed during a calculation, it functions as a time call-out key, and the month, day, hours and minutes are displayed.
- When the preset alarm time is reached, the information and time are displayed repeatedly. If the key is depressed in this mode, the repetition of the display stops.

Example: Reading a friend's telephone number.

Key operation ..... 

Display .....

29.
LETTER

FRIEND
LETTER

321-4567.

- The model is set to the AUTO READ mode if the key is depressed right after the 

keys. The "AUTO. R" sign appears on the display and each successive depression of this key causes one line of information to be displayed.

Key operation ..... 

Display .....

29.
LETTER

FRIEND
AUTO R

321-4567.
AUTO R

FRIEND
AUTO R

NOTE:
The unit is set to the AUTO READ mode with the LETTER, READ, READ keys depressed, and each line of information is displayed in succession at intervals of one second. To stop and read the display, depress the R/S/XQ key again. When the CON key is depressed from the stop position, the information data are read out in reverse and the reading process stops at the first data item.

HYPHEN KEY
Used to enter a hyphen with alphabetic and numeric data. It cannot be used when the model is set to the calculation mode.

CONTINUOUS KEY
- The alphabet data or numerical data usually have a capacity of up to 10 characters (or figures). However, if this key is used, the alphabetic data or numerical data can be extended to 40 characters (figures).
  In other words, the maximum extension data (comprising both the alphabet data and numerical data) is 50 characters (digits).

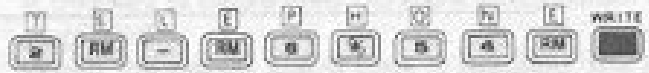
For operation, depress the key with the WRITE key depressed.

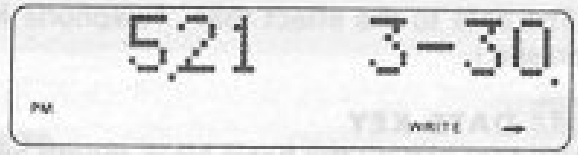
- If this key is depressed from the position where the display has been stopped with the model in the automatic readout mode, the data are read in reverse.

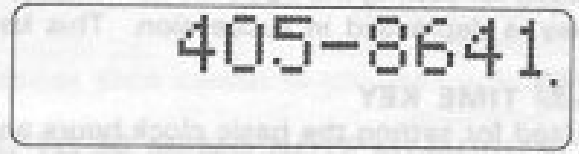
Example: Telephone Mrs. Thatcher at PM 3.30 on May. 21. Her telephone number is 405-8641.

Key operation

Display





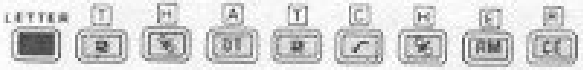


MEMORY DATA CLEAR KEY

- Depress this key to erase data which have previously been stored.
- When the MODE switch is set to NORMAL, stored alphabetic data are entered and the key is depressed, those data only are erased.
- If key is depressed at a scheduled set time with the alarm symbol (((•))) and message displayed, these data are erased.
- To erase all the stored data, use a ball-point pen or similar object to depress the ALL RESET key lightly at the rear of the model and this will clear all the data. Remember that the time data are also erased.

Example: To erase the data pertaining to Mrs. Thatcher.

Key operation



(The data to the effect that "Telephone Mrs. Thatcher at PM 3.30 on May 21; her telephone number if 405-8641 is now erased.)

DT DATE KEY
Used for setting the basic clock month and day of the month. After setting both the month and the day, the date is set if this key is depressed in succession. This key can also be used to set months and data for setting scheduled times.

TM TIME KEY
Used for setting the basic clock hours and minutes. After setting both the hours and minutes, the AM or PM is selected if this key is depressed. In this case, the seconds are set to "00". This key is also used to set the hours and minutes when setting scheduled times.

TMZ WORLD TIME ZONE KEY
Used to recall time zones of the basic clock (in SET mode). The world time zones are also called out (in NORMAL mode).

SET WORLD TIME SET KEY
Used to set the time zones of the basic clock (in the SET mode). This key is also used to set the time zones of the world time and to call out the world times (in the NORMAL mode).

C CLEAR KEY
Used to clear.

CE CLEAR ENTRY KEY
Used to clear an incorrectly entered number.

+ − × ÷ = ARITHMETIC COMMAND KEYS
Depress the addition, subtraction, multiplication or division keys according to the arithmetic operation required.

√ SQUARE ROOT KEY
Calculates the square root of the displayed number.

+/- CHANGE SIGN KEY
Changes the sign of the displayed number from positive to negative or vice versa.

% PERCENT KEY
Used to perform percent or add-on/discount calculations.

M+ M- RM CM MEMORY KEYS (INDEPENDENT MEMORY UNRELATED TO 30 MEMO NOTE MEMORIES)
- To add a number to, or subtract a number from the memory, depress the M+ or M- key and then the number key.
- To add a number just entered as the result of an operation to, or subtract that number from, the memory, depress the M+ or M- key instead of = key. If the result overflows, however, the number cannot be added to the memory.
- To display the number stored in the memory, depress the RM key.
- To clear the number stored in the memory, depress the CM key. Make sure that the memory sign goes off.

A DT ~ Z + ALPHABETIC ENTRY KEYS
Used to enter alphabetic characters if the keys are depressed after the LETTER key.

ALL RESET KEY
Used to clear all registers including all 30 memo note memories.

SPECIFICATIONS

Model:	Electronic Memo Note III, LC-1019MN
Memo note section:	
Numeric keys:	10-key system
Alphabetic keys:	30-key system
Display capacity in memo note mode:	Liquid crystal display, 10-digit alphabetic or 10-digit numeric
Operations:	30 independent alphanumeric memories (1 memory unit: 10-digit alphabetic and 10-digit numeric)
Clock section:	
Display:	12 hours with liquid crystal display and AM/PM sign Date, hours, minutes with AM/PM sign and day of week sign, clock operation signal
Alarm function:	30 alarms, sounding for 16 seconds with electronic buzzer
World time function:	Time at 26 locations
Accuracy:	Average ±20 sec. error/month (at 20°C to 25°C)
Setting time system:	Direct input system with numeral keys
Calculation section	
Display:	10-digit mantissa with 1-digit sign (M, −, E), leading zero suppression system
Decimal point:	Full floating
Operations:	Four basic arithmetic operations, mixed calculations, constant calculations, power calculations, percent calculations, square root calculations, memory calculations, and-on/discount calculations and other applied calculations
General:	
Calculating element:	CMOS LSI + CMOS RAM + CMOS CPU (30 high-capacity memories and 32.76B kHz tuning fork crystal oscillator)
Operating temperature:	0°C to 40°C (32°F to 104°F)

Power supply:	G13, SR44, 803 (lithium), button cell batteries × 3
Power consumption:	DC 4.5V, 4.0 mW
Operating time:	Approx. one year
Dimensions:	70 (W) × 10 (H) × 138 (D) mm (2.76 × 0.39 × 5.43 in.)
Weight:	Approx. 105g (3.7 oz) (with batteries)
Accessories:	Book case, button cell batteries × 3 (built-in)

BEFORE USE AS A CALCULATOR OR AN ELECTRONIC MEMO NOTE

1. First pull out the film sheet at the bottom of the calculator. This causes the power to come on and the display will indicate Sunday, January 1, AM 1.00
2. If the MODE switch is set to the NORMAL position, it is possible to proceed with calculations or with the alphabetic and numeric data programming.
3. It is possible to store up to 30 information units, with one unit being equivalent to 10 alphabetic characters and 10 numerical digits.
4. With the numerical data storage it is also possible to store times (months, days, hours, minutes, days of the week) and so the 30 memories can function as a clock containing up to 30 alarms, and at the same time the content of messages can be displayed too.
5. Alphabetic characters (ABC ... XYZ) can be entered with the MODE switch at NORMAL when the LETTER key is depressed and "LETTER" appears. Depress the [£] key to release the "LETTER" mode.
6. The time in 26 cities throughout the world is displayed. Refer to page 30 and the attached cards for the relationship between the cities and the alphabet characters.
7. When the alarm switch is kept at the ON (● mark) position, the alarm sounds for 16 seconds. When set to OFF, the ((●)) mark and message appear and the alarm stops sounding.
8. If the January 1, AM 1.00 display was not indicated when the film sheet was first drawn out, use a ball-point pen or similar object to gently push the ALL RESET key on the rear of the calculator.

WHEN USING THE MODEL AS AN ELECTRONIC MEMO NOTE

■ HOW TO WRITE IN ALPHABETIC AND NUMERIC INFORMATION

FIVE EXAMPLES OF HOW TO STORE FIVE ITEMS OF DATA (COMMANDS BELOW)

1. Sound the alarm to get up at 6.30 every morning.
2. Sound the alarm every day at 8.30 in the morning, noon, and at 3 o'clock and 5 o'clock in the afternoon.
3. Sound the alarm at 9.30 and 10.30 in the morning in order to meet Mr. Washington at Tokyo Central Station at 10.30 AM on December 25th.
4. You have deposited $1,000 in the City Bank (with a balance of $1,230) to bring your total deposit to $2,230.
5. On May 30th at 10.10 AM you bought 1850 shares of AVCO company at $18.40 each and the payment amount was $34,040.

● The data are stored in the following way and displayed.

Alphabetic (abbreviation)	Numeric
1. GET-UP	6-30
2. ALARM	8-30, 12-00, 3-00, 5-00
3. WASHINGTON, TOKYO-STA	12.25, 9-30, 10-30
4. CITY-BANK	(1230), (1000), 2230
5. AVCO	34040, 18.40, 1850, 5.30 10-10

- The key operation is as follows:
  First set the MODE switch to NORMAL.

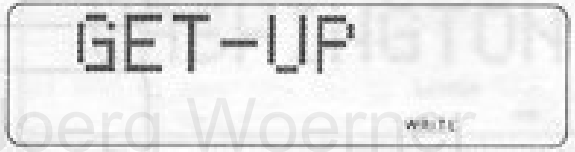
(Key operation) (Display)

1. Get up at 6.30 AM every morning.

LETTER .....

"30" indicated first means that 30 memories can be used.

G F T HYPHEN U P WRITE .....



GET-UP is indicated.

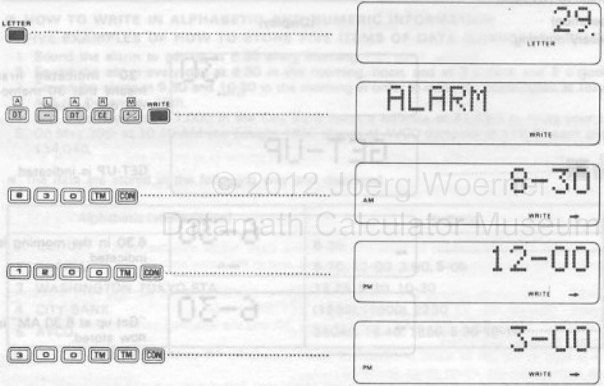
6 3 0 TM .....

6.30 in the morning is indicated.

WRITE .....

"Get up at 6.30 AM" is now stored.

2. Sound the alarm at 8.30 in the morning, noon, and at 3 o'clock and 5 o'clock in the afternoon.



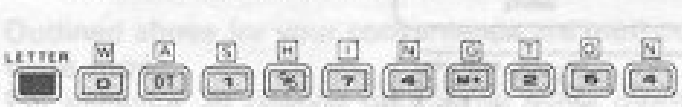
"29" indicates that one memory is being used and so the remaining 29 can be used.

Following on 8.30 three data are memorized and so write with the CON key.

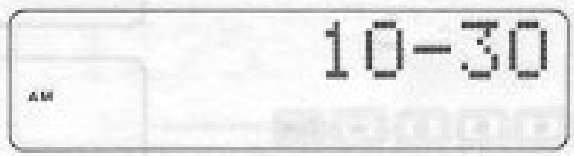
The TM key is depressed twice to change from AM to PM.

* A maximum of four numeric data can be stored along with one alphabetic data.

3. Sound the alarm at 9.30 and 10.30 in the morning in order to meet Mr. Washington at Tokyo Central Station at 10.30 AM on December 25th.



TOKYO-STA follows on this and to depress the CON key.

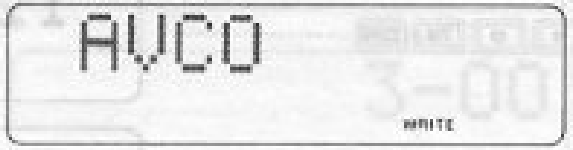


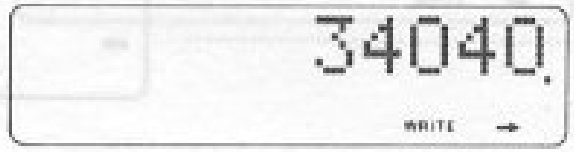
4. You have deposited $1,000 in the City Bank (with a balance of $1,230) to bring your total deposit to $2,230.

With this example, the 1230 has already been memorized.

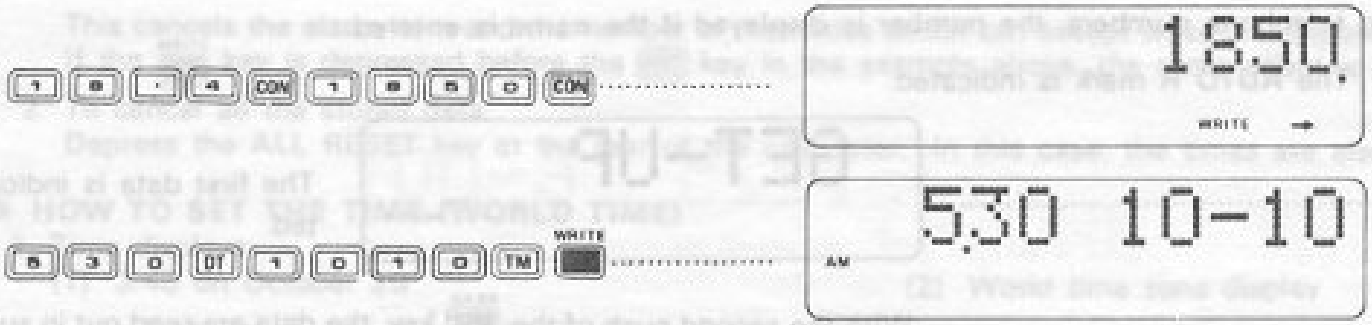
* This is an example where it is possible to perform a calculation in the write mode.

5. On May 30th at 10.10 AM you bought 1850 shares of AVCO company at $18.40 each and the payment amount was $34,040.



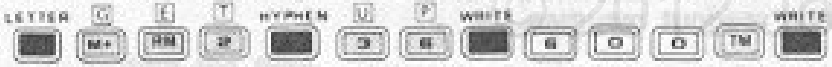


Total value indicated.



Outlined above for your convenience are methods of storing typical data. It is also possible to change numerical data in the write mode.

For instance, to change getting up every morning at 6.30 AM in example (1) to 6.00 AM, operate as follows:



Proceed in the same way to change the date.

■ HOW TO READ THE INFORMATION OUT

There are two methods of reading the information out. One is the method where the alphabet is designated and only the related data are read out. The other is the automatic readout method where the data are read out from the first in succession at 1-second intervals. The READ key is used.

Set the MODE switch to the NORMAL position.

1. To find out the time to get up in the morning in the previous example.

(Key operation)

(Display)

* When storing telephone numbers, the number is displayed if the name is entered.

2. Automatic readout. The AUTO R mark is indicated.

2-1) [LETTER] [READ] ..... GET-UP AUTO R — The first data is indicated.

2-2) [READ] ..... With the second push of the [READ] key, the data are read out in succession at 1-second intervals. This operation is endless.

2-3) [READ] ..... To stop the display, depress the [READ] key again.

2-4) [READ] ..... Automatic readout resumes.

If the [CON] key is depessed at (2-3), the data displayed immediately before is displayed. This is the back step function. This operation stops when the first data is displayed.

■ HOW TO CANCEL STORED INFORMATION (HOW TO USE THE [MIC] KEY)

Depress the [MIC] key with the MODE switch at NORMAL.

1. To cancel the time at which the alarm was to sound at the time determined in the previous example.

(Key operation) (Display)

[LETTER] [A] [ST] [MIC] ..... 0.

This cancels the alarm item and the number of memories which can accept write-in is automatically increased by one. If the WRITE key is depressed before the MDC key in the example above, the same effect is achieved.

2. To cancel all the stored data
Depress the ALL RESET key at the rear of the calculator. In this case, the times are also cleared.

■ HOW TO SET THE TIME (WORLD TIME)

1. Time displays

(1) 3.46 on October 25

(2) World time zone display

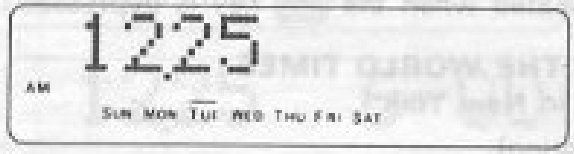
2. Setting the time

Example: Setting to 6 PM on December 25 (Tuesday)

- Set the MODE switch to SET first.

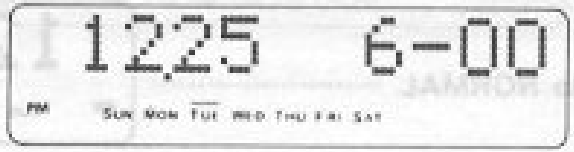
(Key operation)

1 2 5 DT DT DT .....



The day of the week is set with the DT key.

6 0 0 TM TM .....



AM, PM are set with the TM key.

3. Setting the world times.

● How to set the time zones of the basic clock.

(Key operation) (Display)

Set the MODE switch to SET. ..... 

[TMZ] [A] [0] ..... 

* W indicates Tokyo.

[SET] ..... 

* If the basic clock's time zones are not set immediately after the film sheet is pulled out to power the calculator, time zone I (LONDON GMT) is indicated when the [TMZ] key is depressed.

■ HOW TO CALL OUT THE WORLD TIMES

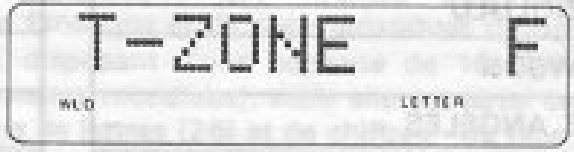
1. Finding out the time in New York

(Key operation) (Display)

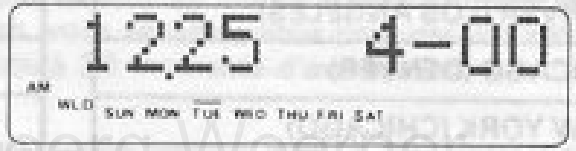
Set the MODE switch to NORMAL. ..... 

TM/C .....

F
M− (New York) .....



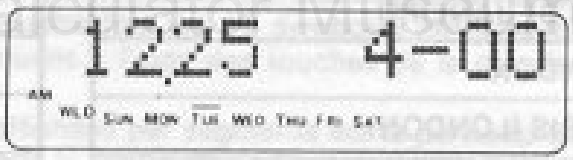
SET .....



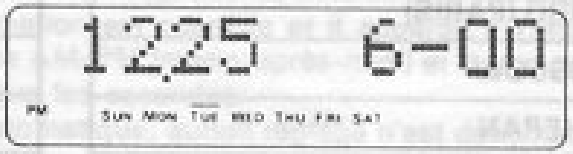
When it is 6 PM in Tokyo, the time in New York is 4 AM.

2. Returning from the world time to the basic clock functions

Set the MODE switch to NORMAL. .....



TM/C C .....



3. The world time zones are as follows ( ) : summer time

CODE	CITY
A	HONOLULU
B	DAWSON
C	LOS ANGELES
D	DENVER (LOS ANGELES)
E	CHICAGO (DENVER)
F	NEW YORK (CHICAGO)
G	CARACAS (NEW YORK)
H	RIO DE JANEIRO
I	LONDON
J	PARIS (LONDON)
K	CAIRO (PARIS)
L	MOSCOW
M	TEHERAN

CODE	CITY
N	DUBAI
O	KABUL
P	KARACHI
Q	NEW DELHI
R	DACCA
S	RANGOON
T	BANGKOK
U	SINGAPORE
V	HONG KONG
W	TOKYO (HONG KONG)
X	SYDNEY
Y	SOLOMON (SYDNEY)
Z	WELLINGTON

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