Calculator review

Below in this document are the handbooks for 2 common low-cost scientific calculators which one can buy in South Africa and Botswana. The handbooks supplied are flimsy and easily damaged or lost, so this duplication of their handbooks / user manuals hopefully will help people.

The calculators are :

1. **From the Clicks chain of shops – the Safeway SW82, which takes 2 x AA batteries (supplied but NOT working), and even works with rechargeable batteries. P30 or approx. US$ 4**
2. **From the PEP chain of shops – the KK1206E – which takes 2 x AG13 (supplied and working) – small and fiddley watch batteries. Pula 20 or approx. US$ 3.**

Comparison – both seem to offer exactly the same functionality. The KK has a much better sliding case and decent protection. The SW82 will need to be used

with one or two strong rubber bands (not supplied). The batteries in the SW82 were date expired and not functioning when the test calculator was purchased. The second functions on the SW82 were very readable whereas the KK's second functions – being pale red on grey – were difficult to see and read. The manual for the SW82 seems longer and more comprehensive, but the manuals to some extent are interchangeable anyway. The display on both seems the same and the decimal places and display length are the same. In fact I guess they use the same chip (IC) and maybe the same display.

I checked a few exp, ln etc functions against excel – the same results came out of both calculators and my PC.

The SW82 handbook is 32 pages and is marked with a footer. The KK1206E handbook is 12 pages and was not really suitable for marking with a footer.

Summary – the choice is down to the batteries and the keyboard. I guess I would personally choose the SW82 since it is better on both those counts, although the KK

is more attractive case-wise and price-wise. If you buy the SW82, then open and switch it on before leaving the shop (Clicks) – then if like mine your batteries are expired they will hopefully replace for you free of charge (I didn't do this).

http://cd3wd.com alexweir1949@gmail.com +267 738 15632

Alex Weir, Plot 25500, Block 9, Gaborone, Botswana. Monday 23 January 2012

Dear customer.

—Thank you very much for purchasing our electronic calculator.

— To fully utilize its features no special training is required, but we suggest you study this operation manual to become familiar with many abilities.

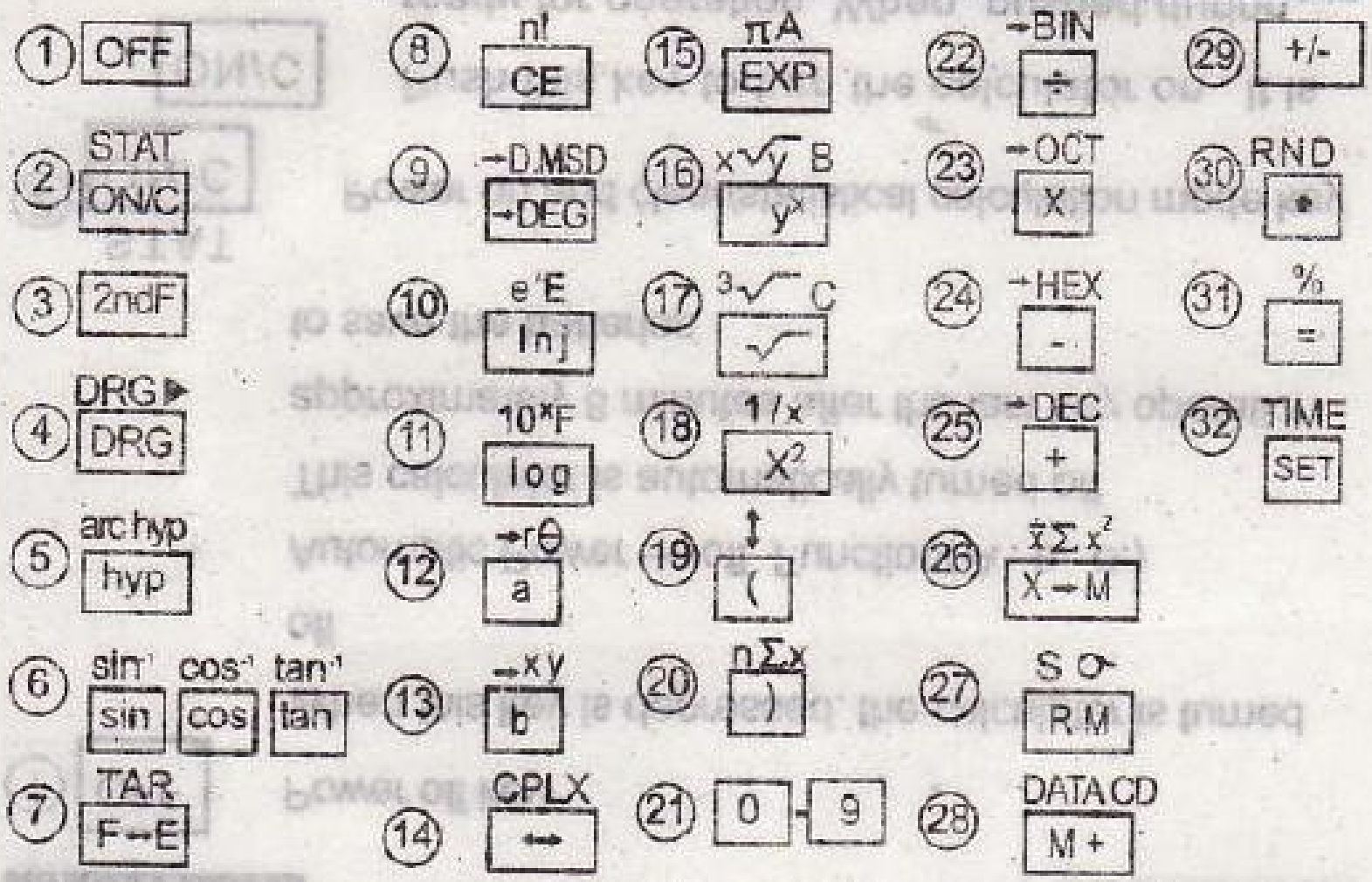
— To help ensure its longenty do not touch the inside of the calculator , avoid hard knocks and unduly strong key pressing. Extreme cold (BELOW 32° or 0°C) , heat (above 104F or 40°C)and humidity may also affect the funcitions of the calculator.Never use volatile fluid such as lacpuer thinner, benzine. etc. when cleaning the unit. FOR servicing.contact your retailer or nearby dealer.

Before starting calculation. be suer to press the ON/C key and

to confirm that " O " is shown in the display

Special care should be taken not to damage the nuit by bending or dropping .For example do not carry it in your hip packet.

THE KEYBOARD



OPERATING CONTROLS

① [OFF] Power off key

When this key is depressed, the calculator is turned off

Automatic Power — off Function(A . p . o.)

This calculator is automatically turned off approximately 8 minutes affer the last key operation to save the batteries

② STAT [ON/C] Power on and clear/statistical calculation mode key

[ON/C] Push this key to turn the calculator on . it is ready for operation. When pushed during

operation it clears the calculator except for the memory.

2ndF STAT Statistical program will be activated

When the calculator is set to the statistical calculation mode through these keys the symbol "STAT" appears. and at the same time the numerical values and calculation commands. except for memory contents are cleared.

mean while. in the statistical calculation mode the), X - M, RM and M+

keys work as the [n], [$\bar{x}$], [S] and [DATA] keys, respectively

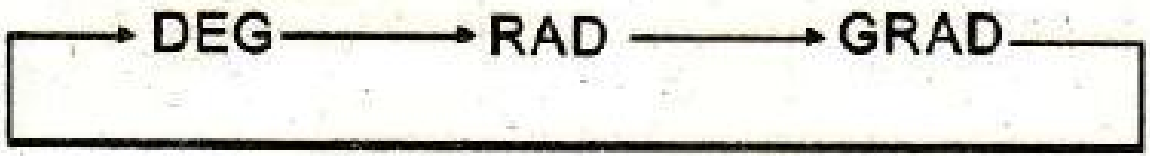
And pushing these keys immediately affer the [2ndF] key they work as the [$\sum x$], [$\sum x^2$], [0] and [CD] keys.

③ [2ndF] 2nd function designation key

④ DRG► [DRG] Degree/ Radian/ Grad selector/angular unit conversion key

DRG : Used for calculation of trigonometric, inverse trigonometric and coordinate

Coversion. The DRG key changes the angular mode.



(Press DRG)

Ex.DEG→GRAD:Depress the DRG key twice.

"DEG" mode — Entries and answers are in decimal dogrees.

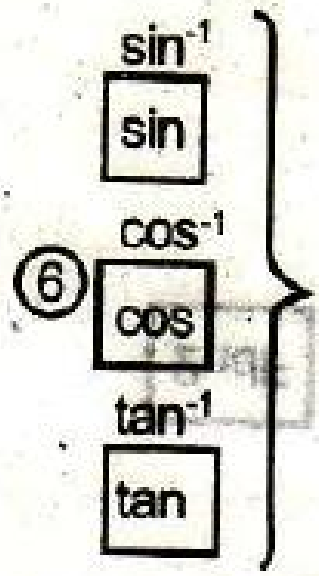
"RAD" mode — Entries and answers are in redians.

"GRAD" mode — Entries and answers are in grads

$(100_g = 90^\circ = \frac{\pi}{2})$

2ndF DRG> — it has the function of the DRG key as well as converting the displayed number into a number of the specifred angular mode.

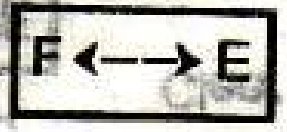
⑤ archyp / hyp — Hyperbolic / arc hyper bolic key



⑥ Trigonometric/inverse trigonometric function key

⑦ TAB

Display format exchange/Tabulation key



: When a calculation result is displayed in the floating decimal point system, pushing the displays the result in the scientific notation system.
Pushing the key once more displays the

result in the floating decimal point system again.

[2ndF] [TAB] : To specify the number of decimal digits in the calculation result.

⑧ n1 [CE] Clear entry/Factorial Key

[CE] : Used to clear an incorrectly entered number.

123 [+] 455 [CE] 456 [=] → 579

[2ndF] [n1] : Calculates the factorial of the displayed number.

factorial of n(n1) = n • (n — 1) •(n— 2) •••••• 2 • 1

⑨ →D MSD
+DEG
Degree/ minute/ second ↔ Decimal degrees conversion/hexadecimal number key

• DEG 2ndF • DMS : To convert degree/ minute/ second to decimal degree and vice versa.

D : Hexadecimal number "D" key.
(effective only in hexadecimal number model – HEX mode).

⑩ e'E
ln
Natural logarithm/ antilogarithm and hexadecimal number key

ln : Used to obtain the logenthm base e (e=2.718281828).

2ndF e : calculates the antilonganithm base e of the displayed number.

E : HEX.mode

"Hexadeciml number" E" key.

⑪ 10'F Common logarithm / antilogarithm and hex adeciaml

log

number key

log : Used to obtain the logarithm with the base of 10.

2ndF 10^x : Calculates the antilogarithm with the base of 10.

F : HEX mode

Hex adecimal number" F" key.

⑫ y^{θ}

Real number enter/coordinate conversion key

a

a : • This is used when real parts of comples numbers are to be Inputted and when calling the real parts of calculation results.

• This is used during coordiante conversions when the x coordinate of the Rectangular coordinates(x.y) is input of when ther of the polar coordinates.

(r, θ) is input. it is also used for calling the calcula 'ed values of x or r.

2ndF 'rθ : Convert rectangular coordinate into polar coordinate.

(13) X Y
b
b

Imaginay number enter/coordinate conversion key

- This is used when the imginary parts of complex numbers are to be input and when calling the imaginary parts of the calculation results.
- This is used during coordinate convesions when the Y coordinate of the Rectangular coordinates (x, Y) is input or when the θ of the polar coordinates (y , θ) is input. it is also used for calling the calculated values of r or θ

2ndF → xy : Converts polar cobrdinate into rectangular coordinate

(14) cplx

Right shift/complex number mode key

[•] : Example

Key in	Display
(1)123456 [•] [•]	→ 123
	45 → 12345.
(5)5 [EXP] 24 [•]	[•] → 5.00
	35 → 5.35

[2ndF] [CPLX] : Used to set the complex number mode.

(15) XA [EXP] : Enter exponent / Pi and hexadecim 3I number key

[EXP] : To enter number in scienthic noation.

[2ndF] [X] : The constant 1 JI (JI=3.141592654)is entered

15

A : HEX mode

Hex adecimal number" A" key

16 x $\sqrt{Y}$ θ Y^X Y^X : Raises a number to a power.

Y^X and hex adecimal number key

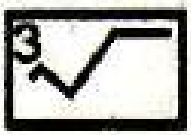
2ndF $x\sqrt{Y}$ Calculates the X th root of Y

B : HEX mode

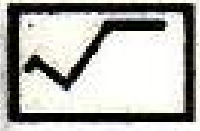
Hex adecimal number" B" key

17 $\sqrt[3]{1}$ c

Square root / cube root and hex adecimal number key



Calculates the square root of the number displayed.

2ndF  Calculates the cube root of the number displayed

C : HEX mode

Hex adecimal number" C" key

⑱ 1 / X

X 2 Square / reciprocal key

X 2 : Calculates a square the number displayed

2ndF 1 / X : Calculates reciprocal of the number displayed

⑲ : Opde parenthesis / exchange key

(

(: Used to open parenthesis

2ndF [:] : Used to ex change the number being displayed with the number stored in the working register. (X ⟷ y)

(20) $n \sum x$) Close parenthesis / statistical calculation key

) : Used to close parenthesis.

When the statistical mode is set

n : Displays the number of samples entered.(n)

2ndF [$\sum x$] : Used to obtain the sum of the date($\sum x$)

(21) [0] — [9] Number keys

Used to enter numbers.

(22) →BIN ÷ Division/binary number mode key

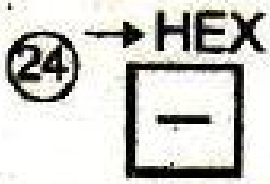
÷ : Depressed for division.

2ndF —BIN : Used to set the binary system mode
Conyerts the number displayed into a number in base 2 :

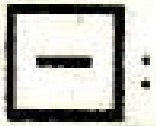
(23) →OCT X Multiplicatio/ octal number mode key

X : Depressed for multiplication.

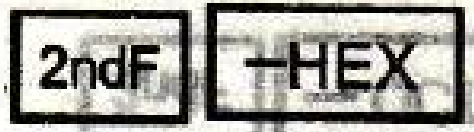
2ndF —OCT : Used to set the octal system mode.
Converts the number dispiayed into a number in base 8.



Minus/hex adecimal number mode key.

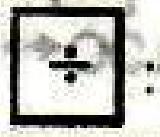


: Depressed for subtraction.

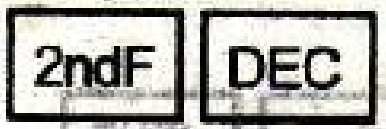


: Used to set the hex adecimal system mode. Converts the number displayed into a number in base 16.

Plus/decimal number key



: Depressed for division.



: Used to sed the decimal system mode(momal mode). Converts the number displayed into a number in base 10.

(26) X\x² Memory-in / statistical calculation key

X • M

X —M Clears the number in the menory and then store the number being displayed in the memory.

to clear the memory depress the ON.C key tollowde by the X • M key.

When the statistical mode is set

$\bar{x}$: Used to obtain the mean value of the data($\bar{x}$)

2ndF −BIN : Used to obtain the sum of squares of data.

$(\sum x^2)$

(27) So

RM

Recall memory/statistical calculation key

RM

Displays the contents of the memory The contenis of the memory remain unchanged affer this key operation.

When the statistical mode is set

S : Used to obtain the standard deviation of the sample of data

2ndF a : Used to obtain the standard deviation of the population of data.

(28) DATA CD

M+

Memory plus/DATA CD key

M+ : Usde to add the number being displayed of calculated

result to the contents of the memory.

Whem subtractiong a number from the memory,depress the

[+] and [M+] keys in this order

When the statistical mode is set

[DATA] : Used to enter the data(numbers.)

[2ndF] [CD] : Used to correct the mis-entry.(delete function)

㉙ [+/-]

Change sign key

Changes the sign of the number displayed from a positive to & negative or vice versa.

Exanple5 [+/-] → −5

㉚ RND [•]

Decimal point/randon number key

Example: 12.3 — [1] [2] [•] [3]

0.7 — [•] [7]

[2ndF] [RND] These keys are used to generate uniform ranodm numbers from 0.000 to 0.999

Note Random number gemeration is not possible when

binary octal hex adecimal system mode is set

(31) [%] [=] Equals/percent key

[=] : Completes four arithmetic calculations(+,-,x, ÷), $x\sqrt{y}$, y^2 and comples number calculations

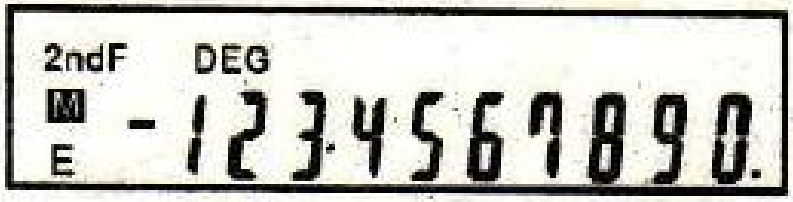
[2ndF] [%] : Used for the percentage calculation and add-on

disconut calculatior

(32) TIME SET Time set

[redacted] DISPLAY [redacted]

(1) Display format



(Floating decimal system, normal display)

(Scientific notation system)

Mantissa Exponent

(2)Symbols

— : Minus symbol

Indicates that the number in the display following the " — " is a negtive

M : Memory symbol

Appears when a number is stored in the memory

E:Error symbol

Appears when an overflow or an error is detected

2ndF:2nd function designation symbol.

Appears when the 2nd function is designated.

HYP.Hyperbolic function designation symbol

appears when hyperbolic function is designated.

DEG:Degree mode symbol

Appears when the degree mode is designated or shows that the angular mode of the convered result is in degree.

RAD:Radian mode symbol

Appears when the radian mode is designated or shows that

the angular mode of the converted result isin radian

GRAD: Grad mode symbol

Appears when the grad mode is designated or shows that the angular mode of the converted result is in grad.

( ): Parenthesis symbol

Appears when a calcuation with parenthesis is pertomed. by depressing the (key.

BIN : Appears when the binay system mode is set of shows the displayed number is a binay number

OCT : Appears when the octal system mode is set or shows the displayed number is an octal number

HEX : Appears when the hex adecimal system mode is set of shows the displayed number is a hex adecimal number.

CPLX : Appears when the complex number mode is set.

SIAI : Appears when the statistical calculation mode is set.

(3)Display system

This machine displays a calculation result (x) , if it is with in the following range.in the floating decimal point system.

$$0.000000001 \leqslant 1X1 \leqslant 9999999999$$

And other wise the machine displays X in the scientific notaion system.

however a calculation result with in the above range is also capable of being displayed in the scientific notation system by pressing the [F—E] key.

Example: [2ndF] [TAB] [9]

[•] [5] [+] [9] [=] → 0. 055555556

(The 10th decimal place is rounded.)

[F—E] → 5.5555555 — 02

(The 10th decimal place of the

mantissa is rounded.)

F—E → 0. 055565656

2ndF TAB • → 0.056666656

This is delermined by the calculator in the form of $5.55555555556X10^{2}$.

Rounding the 11th digit of the mantisee reaults in 5. $555555556X10^{2}$.

When changed to the flosting decimal display.

the rounded parts may not be displayed as in this example

BATTERY REPLACEMENT

If the display becomes dark or dim. replace the batteries with new ones according to the following procedure.

Battery: LR1130 X2or
G10 X2

1.Turn off the calculator.

2.remove the battery cover.

3.Replaces the batteries. (+ side must be up)

4.Push is the battery cover.

5.Affer the replacement, press the OFF and ON/C keys in this order to clear the calculator.

When the batteries are correctly installed " DEG 0." Will be displayed. (if the display shows nothing or a meaning less aymbol, or the keys become in operative, remove the batteries and

install them again. Prss [OFF] [ON/C] keys in this order and check the display again)

Note: — wipe off the surface of the new batteries with dry cloth and then install the batteries.

— Always replace both of the batienes at the same time.

Scientific Calculator

Dear Customer,

- Thank you very much for purchasing our electronic calculator.
- To fully utilize its features no special training is reqùired, but we suggest you study this operation manual to become familiar with its many abilities.
- To help ensure its longevity do not touch the inside of the calculator, and avoid hard knocks and unduly strong key pressing. Extreme cold (BELOW 32° F or 0°C), heat (above 104° F or 40° C) and humidity may also affect the functions of the calculator. Never use volatile fluid such as lacquer thinner, benzene, etc., when cleaning the unit. FOR servicing, contact your retailer or nearby dealer.

Before starting calculation, be sure to press the ON/C key and to confirm that "0" is shown in the display.

Special care should be taken not to damage the unit by bending or dropping. For example, do not carry it in your hip pocket.

THE KEYBOARD

	nI	π A	▸ BIN	
(1) OFF	(8) CE	(15) Exp	(22) +	(29) +/−
STAT	→ DMS D	x√y B	▸ OCT	RND
(2) ON/C	(9) DEG	(16) y^x	(23) x	(30) •
	e^x E	$\sqrt[3]{}$ C	▸ HEX	%
(3) 2ndF	(10) ln	(17) √	(24) −	(31) =
DRG▸	10^x F	1/x	▸ DEC	
(4) DRG	(11) log	(18) x^2	(25) +	

(4) [DRG] (11) [log] (18) [x²] (25) [+]

arc hyp → re ↕ $\bar{x}$ Σx^2

(5) [hyp] (12) [a] (19) [(] (26) [X M]

$\sin^{-1}$ $\cos^{-1}$ $\tan^{-1}$ → xy n Σx s o

(6) [sin] [cos] [tan] (13) [b] (20) [)] (27) [RM]

TAB CPLX data CD

(7) [F↔E] (14) [◄►] (21) [0] - [9] (28) [M+]

OPERATING CONTROLS

(1) [OFF] **Power off key**

When this key is depressed, the calculator is turned off.

Automatic Power – Off Function **(A.P.O.)**

This calculator is automatically turned off approximately 8 miuntes after the last key operation to save the batteries.

STAT

(2) [ON/C] **Power on and clear/statistical calculation mode key**

[ON/C] Push this key to turn the calculator on. It is ready for operation. When pushed during operation it clears the calculator except for the memory.

[2ndF] [STAT] Statistical program will be activated.

When the calculator is set to the statistical calculation mode through these keys the symbol "STAT" appears and at the same time the numerical values and calculation commands, except for memory contents are cleared.

Meanwhile, in the statistical calculation mode the [)], [X→M], [RM] and [M+] keys work as the [n], [$\bar{x}$], [s] and [DATA] keys, respectively.

And pushing these keys immediately after the [2ndF] key they work as the [Σx], [Σx^2], [o] and [CD] keys.

(3) [2ndF] **2nd function designation key**

DRG ▸

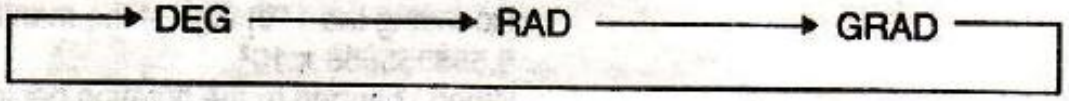
they work as the [Σx], [Σx²], [σ] and [CD] keys.

(3) [2ndF] **2nd function designation key**

DRG ▸

(4) [DRG] **Degree / Radian / Grad selector / angular unit conversion key**

[DRG]: Used for calculation of trigonometric, inverse trigonometric and coordinate conversion. The [DRG] key changes the angular mode.



(Press [DRG])

Ex. DEG GRAD: Depress the [DRG] key twice.

"DEG" mode – Entries and answers are in decimal degrees.

"RAD" mode – Entries and answers are in radians.

"GRAD" mode – Entries and answers are in grads.

$(100^g = 90° = \frac{\pi}{2})$

[2ndF] [DRG▸] It has the function of the [DRG] key as well as converting the displayed number into a number of specified angular mode.

arc hyp

(5) [hyp] **Hyperbolic/arc hyperbolic key**

$\sin^{-1}$

[sin]

$\cos^{-1}$

(6) [cos] } Trigonometric / Inverse trigonometric function key

$\tan^{-1}$

[tan]

TAB

(7) [F↔E] **Display format exchange/Tabulation key**

[F↔E] When a calculation result is displayed in the floating decimal point system, pushing the key displays the result in the scientific notation system.
Pushing the key once more displays the result in the floating decimal point system again.

[2ndF] [TAB] To specify the number of decimal digits in the calculation result.

n1

(8) [CE] **Clear entry / Factorial key**

[CE] Used to clear an incorrectly entered number.

123 [+] 455 [CE] 456 [=] −579

[2ndF] [n1] Calculates the factorial of the displayed number.
Factorial of $n(nt) = n \cdot (n - 1) \cdot (n - 2) \cdots\cdots 2 \cdot 1$

→DMS D

(9) [DEG] **Degree/minute/second ⟷ Decimal degrees conversion/hexadecimal number key**

[DEG] [2ndF] [DMS] To convert degree / minute / second to decimal degree and vice versa.

[D] Hexadecimal number "D" key.
(effective only in hexadecimal number model – HEX mode).

e^x E

(10) [ln] **Natural logarithm/antilogarithm and hexadecimal number key**

[ln] Used to obtain the logarithm base e (e = 2.718281828).

2ndF [e^x] Calculates the antilogarithm base of the displayed number.

[E] HEX mode
Hexadecimal number "E" key.

10^x F
(11) [log] **Common logarithm/antilogarithm and hexadecimal number key**

[log] Used to obtain the logarithm with the base of 10.

2ndF [10] Calculates the antilogarithm with the base of 10.

[F] HEX mode
Hexadecimal number "F" key.

→re
(12) [a] **Real number enter/coordinate conversion key**

[a] This is used when real parts of complex numbers are to be inputted and when calling the eral parts of calculation results.
This is used during coordinate conversions when the X coordinate of the rectangular coordinates (X, Y) is input or when the r of the polar coordinates (r, 9) is input. It is also used for calling calculated values of X or r.

2ndF [→re] Convert rectangular coordinate into polar coordinate.

→xy
(13) [b] **Imaginary number enter/coordinate conversion key**

[b] This is used when imaginary parts of complex numbers are to be input and when calling the imaginary parts of the calculation results.
This is used during coordinate conversions when the Y coordinate of the Rectangular coordinates (X, Y) is input or when the 9 of the polar coordinates (y, 9) is input. It is also used for calling the calculated values of Y or

2ndF [→xy] Converts polar coordinate into rectangular coordinate

CPLX
(14) [↔] **Right shift/complex number mode key**

[↔]

	Example	Key In	Display
(1)	123456		

(14) [↔] Right shift/complex number mode key

[↔]

Example | Key In | Display

(1) 123456 [↔] [↔] [↔] → 123

45 → 12345.

(5) 5 [EXP] 24 [↔] [↔] → 5.00

35 → 5.35

[2ndF] [CPLX] Used to set the complex number mode.

π A

(15) [Exp] Enter exponent / Pi and hexadecimal number key

[Exp] To enter number in scientific notation.

[2ndF] [π] The constant π (π = 3.141592654) is entered.

[A] HEX mode
Hexadecimal number "A" key.

x√y B

(16) [y^x] yx/x√y and hexadecimal number key

[y^x] Raises a number to a power.

[2ndF] [x√y] Calculates the X th root of Y

[B] HEX mode
Hexadecimal number "B" key.

$\sqrt[3]{}$ C

(17) [√] Square root/cube root and hexadecimal number key

[√] Calculates the square root of the number displayed.

[2ndF] [$\sqrt[3]{}$] Calculates the cube root of the number displayed.

[C] HEX mode
Hexadecimal number "C" key.

1/x

(18) [x^2] Square/reciprocal key

[x^2] Calculates a square of the number displayed.

[2ndF] [1/x] Calculates the reciprocal of the number displayed.

(19) [(] **Open parenthesis/exchange key**

[(] Used to open parenthesis.

[2ndF] [↕] Used to exchange the number being displayed with the number stored in the working register. (x⟷y)

(20) [)] **Close parenthesis/statistical calculation key**

[)] Used to close parenthesis when the statistical mode is set.

[n] Displays the number of samples entered. (n)

[2ndF] [Σx] Used to obtain the sum of the data (Σx).

(21) [0] – [9] **Number keys**

Used to enter numbers.

(22) [+] **Division / binary number mode key**

[+] Depressed for division.

[2ndF] [▸ BIN] Used to set the binary system mode.
Converts the number displayed into a number in base 2.

(23) [x] **Multiplication / octal number mode key**

[x] Depressed for multiplication.

[2ndF] [▸OCT] Used to set the octal system mode.
Converts the number displayed into a number in base 8.

▸ HEX

(24) [−] **Minus / hexadecimal number mode key**

[−] Depressed for subtraction.

[2ndF] [▸HEX] Used to set the hexadecimal system mode.
Converts the number displayed into a number in base 16.

▸ DEC

(25) [+] **Plus / decimal number key**

[+] Depressed for addition.

[2ndF] [▸DEC] Used to set the decimal system mode (normal mode).
Converts the number displayed into a number in base 10.

$\bar{x}$ Σx^2

(26) [X→M] **Memory – In / statistical calculation key**

[X→M] Clears the number in the memory and then stores the number being displayed in the memory.
To clear the memory depress the [ON/C] key followed by the [X→M] key.
When the statistical mode is set

[$\bar{x}$] Used to obtain the mean value of the data. ($\bar{x}$)

[2ndF] [Σx^2] Uaed to obtain the sum of squares of data. (Σx^2)

s σ

(27) [RM] **Recall memory / statistical calculation key**

[RM] Displays the contents of the memory. The contents of the memory remain unchanged after this key operation.
When the statistical mode is set

[s] Used to obtain the standard deviation of the sample of data.

[2ndF] [σ] Used to obtain the standard deviation of the population of data.

DATA CD

(28) [M+] **Memory plus / DATA CD key**

[M+] : Used to add the number being displayed or a calculated result

DATA CD

(28) [M+] **Memory plus / DATA CD key**

[M+] : Used to add the number being displayed or a calculated result to the contents of the memory.

When subtracting a number from the memory, depress the [+] and the [M+] keys in this order.

When the statistical mode is set

[DATA] Used to enter the data (numbers)

[2ndF] [CD] Used to correct the misentry. (delete function)

(29) [+/−] **Change sign key**

Changes the sign of the number displayed from a positive to a negative or vice versa.

Example 5 [+/−] -5

RND

(30) [·] **Decimal point/random number key**

[·] Example: 12.3 − [1] [2] [·] [3]

0.7 − [·] [7]

[2ndF] [RND] These keys are used to generate uniform random numbers from 0.000 to 0.999

Note: Random number generation is not possible when binary octal hexadecimal system mode is set.

%

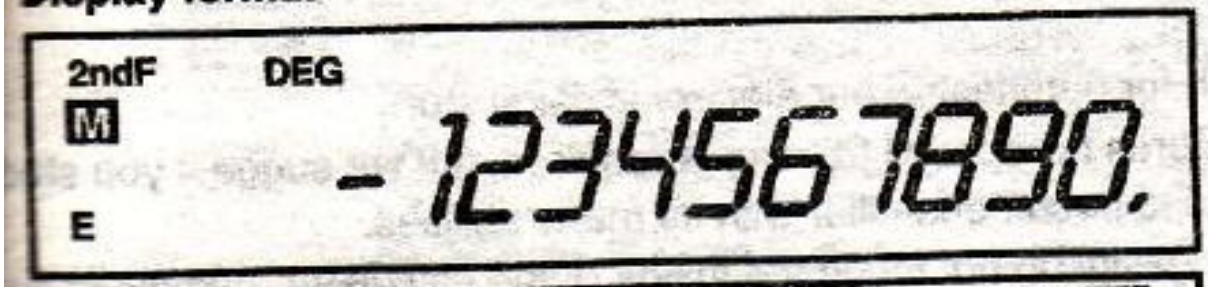
(31) [=] **Equals/percent key**

[=] Completes four arithmetic calculations (+, −, x, ÷), $\sqrt[x]{y}$, y^2 and complex number calculations

[2ndF] [%] Used for the percentage calculation and add-on discount calculator

DISPLAY

Display format



(Floating decimal system, normal display)

(Scientific notation system)

Mantissa

Exponent

Symbols

– **Minus symbol**
Indicates that the number in the display following the " - " is a negative.

M **Memory symbol**
Appears when a number is stored in the memory.

E **Error symbol**
Appears when an overflow or an error is detected.

2ndF **2nd function designation symbol**
Appears when the 2nd function is designated.

HYP **Hyperbolic function designation symbol**
Appears when hyperbolic function is designated.

DEG **Degree mode symbol**

Appears when the degree mode is designated or shows that the angular mode of the converted result is in degree.

RAD **Radian mode symbol**
Appears when the radian mode is designated or shows that the angular mode of the converted result is in radian.

Grad **Grad mode symbol**
Appears when the grad mode is designated or shows that the angular mode of the converted result is in grad.

( ) **Parenthesis symbol**
Appears when a calculation with parenthesis is performed by depressing the (key.

BIN Appears when the binary system mode is set or shows the displayed number is a binary number.

OCT Appears when the octal system mode is set or shows the displayed number is an octal number.

HEX Appears when the hexadecimal system mode is set or shows the displayed number is a hexadecimal number.

CPLX Appears when the complex number mode is set.

STAT Appears when the statistical calculation mode is set.

3) Display System

This machine displays a calculation result (x). If it is within the following range, in the floating decimal point system:

$$0.0000000001 < 1 \times 1 < 9999999999$$

And otherwise the machine displays X in the scientific notation system.
However, a calculation result within the above range is also capable of being displayed in the scientific notation system by pressing the [F↔E] key.

Example: [2ndF] [TAB] [9]

[.] [5] [+] [9] [=] → 0.055555556
(The 10th decimal place is rounded)

[F-E] → 5.5555555-02
(The 10th decimal place of the mantissa is rounded)

F-E → 5.5555555-02
(The 10th decimal place of the mantissa is rounded)

F-E → 0.055555556

2ndF TAB · → 0.055555555
This is determined by the calculator in the form of 5.555555556×10^2
Rounding the 11th digit of the mantissa results in 5.555555556×10^2
When changed to the flotation decimal display, the rounded parts may not be displayed as in this example.

BATTERY REPLACEMENT

If the display becomes dark or dim, replace the batteries with new ones according to the following procedure.
Battery: LR1130 x 2 or G10 x 2

1. Turn off the calculator.
2. Remove the battery cover.
3. Replace the batteries. (+ side must be up)
4. Push in the battery cover.
5. After the replacement, press the OFF and ON/C keys in this order to clear the calculator. When the batteries are correctly installed "DEG 0" will be displayed (if the display shows nothing or a meaningless symbol, or the keys become inoperative, remove the batteries and install them again.
Press OFF and ON/C keys in this order to check the display again)

Note: - Wipe off the surface of the new batteries with dry cloth and then install the batteries.
- Always replace both of the batteries at the same time.