INSTRUCTIONS

H.767

Congratulations! You have just acquired the smallest scientific calculator in the world! This machine is the result of modern LSI technology and advanced production technique. Never has there been such a small machine with such a large capability of performance!

To enable you to get the maximum results from this machine, please read through this manual carefully. It will save you many hours of experimentation.

First, install the 9V, (006P) battery by sliding the battery cover open. Install the battery, observing correct polarities of the battery, and close the battery cover. Switch the power-on switch to "ON". One zero, 0, should appear at the left hand corner of the display. If not, check the battery again for correct connection and polarity.

WARNING!

Always remove low batteries from machine! Low batteries leak and will damage the machine. Any damage caused by battery leak are "NOT" under the warranty of the manufacturer.

EXPLANATION OF KEYS

0 to 9
Numeric entry keys.

$.$
Decimal key.

$+$ $-$ $\times$ $\div$
Arithmetic function keys.

C/CE Clear Key:
Press once, clear only previous entry.
Press twice, clear all the figures.

$+/-$
Sign change key. Press once for sign change.

RM
Recall memory key.

F
Function key. Press the key will activate the secondary functions printed above the normal function keys.

CA
Clear all key. Press this key to clear all the figures including memory.

D
Display Recall key. After 30 seconds approximately, display goes out to save battery.
Press this key to recall display.

The following functions are activated only after first pressing the F key.

π
Pi, 3.1415926.

$1/x$
Reciprocal.

COS
Cosine.

SIN
Sine.

TAN
Tangent.

COS^{-1}
Arc cosine.

SIN^{-1}
Arc sine.

TAN^{-1}
Arc tangent.

$D \rightarrow R$
Degrees to Radians.

$R \rightarrow D$
Radians to Degrees.

$M-$
Subtract display from memory.

$M+$
Add display to memory.

MS
Memory store. If a number had been stored before, the addition of a new number will replace the first number. First number will be lost.
Depressing 0 F MS will cancel the memory.

Log
Common logarithm, to the base 10.

Ln
Natural logarithm to the base e.

Y^x
Y raised to the x power.

e^x
e raised to the x power.

$\sqrt{x}$
Square root.

$X-Y$
X, Y exchange.

CLF
Clear "FUNCTION". If F key is depressed by mistake, it can be cancelled by pressing CLF.

ENT
Enter key.

This machine uses RPN (Reverse Polish Notation) logic. This will seem strange to you at the beginning, but soon, you will realize the advantages and power of this logic. It saves time in entry and requires no parenthesis for chain operations.

EXAMPLES

ADDITION
$2 + 3 + 8 = 13$

Key Entry	Display	
2	2	
ENT	2	
3	3	
+	5	
8	8	
+	13	Answer

SUBTRACTION
$45 - 6 - 8 = 31$

Key Entry	Display	
45	45	
ENT	45	
6	6	
−	39	
8	8	
−	31	Answer

MULTIPLICATION
$2 \times 4 \times 9 = 72$

Key Entry	Display	
2	2	
ENT	2	
4	4	
×	8	
9	9	
×	72	Answer

DIVISION
$$\frac{98}{4 \times 2} = 12.25$$

Key Entry	Display	
98	98	
ENT	98	
4	4	
÷	24.5	
2	2	
÷	12.25	Answer

CHAIN OPERATION
$$\frac{(\frac{10}{2} - 2) + (12 \times 2 + 3) \times (\frac{16}{4} \times 2)}{24} = 10$$

Key Entry	Display	
10 ENT	10	
2 ÷	5	
2 −	3	
12 ENT	12	
2 ×	24	
3 +	27	
+	30	3 is added to 27!
16 ENT	16	
4 ÷	4	
2 ×	8	
×	240	30 is multiplied by 8
24 ÷	10	240 divided by 24

NEGATIVE NUMBERS

$-\frac{1}{3} = .33333333$

Key Entry	Display
3	3
+/−	−3
F 1/x	−.33333333

SQUARE ROOT

$(6 + \sqrt{8}) \times 3 = 26.485281$

Key Entry	Display
6 ENT	6
8 F √x	2.8284271
+	8.8284271
3 x	26.485281

SQUARE

$(3 + 1.5^2)^2 = 27.5625$

Key Entry	Display	
3 ENT	3	
1.5 ENT x	2.25	1.5 squared
+	5.25	
ENT x	27.5625	5.25 squared

NATURAL LOGARITHM

$\text{Ln } 44^3 = 3 \times \text{Ln}^{44} = 11.35257$

Key Entry	Display
3 ENT	3
44 F Ln	3.78419
x	11.35257

COMMON LOGARITHM

$\text{Log } (\frac{846}{2}) = 2.6263$

Key Entry	Display
846 ENT	846
2 ÷	423
F Log	2.62634

NATURAL LOGARITHM, TO THE BASE e

$e^{-0.2} = 0.818731$

Key Entry	Display
.2 +/−	−.2
F eˣ	.818731

ANTI COMMON LOGARITHM

$10^{2.55} = 354.8131$

Key Entry	Display
10 ENT	10
2.55 F Yˣ	354.8131

RAISING ANY NUMBER TO ANY POWER

$3^{3.3} = 38.79839$

Key Entry	Display
3 ENT	3
3.33 F Yˣ	38.79839

DEGREES TO RADIANS AND REVERSE

$45° = 0.78539815$ radians

Key Entry	Display
45 F D→R	0.78539815
F R→D	44.999999 = 45°

TRIGONOMETRIC FUNCTIONS

Key Entry	Display
30 F SIN	0.5
F SIN⁻¹	30
F COS	.8660255
F COS⁻¹	29.99999
F TAN	.57735
F TAN⁻¹	29.99999

RECIPROCAL

$1/x \quad \frac{1}{9} = .11111111$

Key Entry	Display
9 ENT	9
F 1/x	0.11111111

PI

$\pi \quad 2 \pi R = 2 \pi 6 = 37.699111$

Key Entry	Display
2 ENT	2
F π x	62831852
6 x	37.699111

MEMORY AND MEMORY STORE AND OTHER FUNCTION!

Solve A. (30 x 3) + 30 = 120
B. 120 + 20 = 140, etc.

Key Entry	Display	Explanation
0 F MS		To cancel memory
30 F MS ENT	30	30 in memory
3 x	90	
RM +	120	30 recalled and added
20 F M+	20	20 added to memory
RM	50	50 in memory
+	70	20 added to 50 = 70
+	190	70 added to 120 = 190
10 F M−	10	10 subtracted from memory
RM	40	50 − 10 = 40 in memory
60 F MS	60	
RM	60	60 replaces previous memory 40
3 x	180	
F X→Y	60	Exchanges display with register
F	60	F key called for, but not wanted
CLF	60	F key cancelled.
3 x	180	Operation continues without F.

COMPLEX CALCULATIONS

Solve $\sqrt{5 \left(\left(\left(\left(\frac{400}{661.5} \right)^2 (0.2) + 1 \right)^{\frac{1.4}{.4}} - 1 \right) \frac{29.96}{15} + 1 \right]^{.286} - 1}$

Key Entry	Display	
400 ENT	400	
661.5 ÷	.60468631	
ENT x	.36564553	squared
.2 x	.0731291	
1 +	1.0731291	
1.4 ENT	1.4	
.4 ÷	3.5	
F Yˣ	1.280211	
1 −	.280211	
29.96 ENT	29.96	
15 ÷	1.9973333	
x	0.55967476	
1 +	1.5596747	
.286 F Yˣ	1.135553	
5 x	5.677765	
F √x	2.3828061	