

NIXDORF
COMPUTER

LK-3900

CALCULATOR

NIXDORF
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CONGRATULATIONS! As the owner of an LK-3000, you hold in your hand a remarkably versatile mini-computer. Translate foreign languages, do metric conversions, figure currency exchange values and more...with the switch of a module.

The LK-3900 Calculator module turns your LK-3000 into a sophisticated five-function calculator with memory, that also does metric conversions. A special plus: you can even figure currency conversions. For information on additional modules available for use with the LK-3000, see page 19 of this manual.

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3 BASIC FEATURES OF THE LK-3000

The LK-3000 comes in its own vinyl carrying case with room for two extra modules and instruction booklets.

POWER SOURCE

The LK-3000 operates on a built-in rechargeable battery which provides about four hours of continuous use when fully charged. The LK-3800 Adaptor/Charger has a ten-foot cord and operates on U.S. or international current (110/220 volts, 50-60Hz). You may need a simple plug adaptor to connect the Adaptor/Charger to electrical outlets in some countries.

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OPERATION

VOLTAGE SELECTION: Before using the AC Adaptor/Charger, be sure to set the voltage. Use a pen tip or small coin to move the recessed switch to 110v (U.S.) or 220v (Europe).

AC OPERATION: Connect the AC Adaptor/Charger to a wall outlet and to the LK-3000, then turn the power on.

BATTERY OPERATION: Disconnect the AC Adaptor/Charger. The battery provides about four hours of continuous use when fully charged.

BATTERY CHARGING: Connect the AC Adaptor/Charger to the LK-3000 and to a wall outlet, but leave the power switch OFF. The battery will recharge overnight. It cannot be overcharged.

PRECAUTIONS

- Always turn the power OFF before charging the battery or removing a module.
- Always be sure to select the correct voltage before using the AC Adaptor/Charger.

Failure to follow these precautions could result in serious damage to the LK-3000 and will void your warranty.

ENERGY-SAVING MODE

If you leave your LK-3000 on for more than thirty seconds without making an entry, the display will clear and a dot will travel across the screen. This indicates that the computer has gone into its energy-saving mode. Numbers that were displayed are automatically transferred to the temporary memory. To recall them, simply press twice.

TECHNICAL SPECIFICATIONS

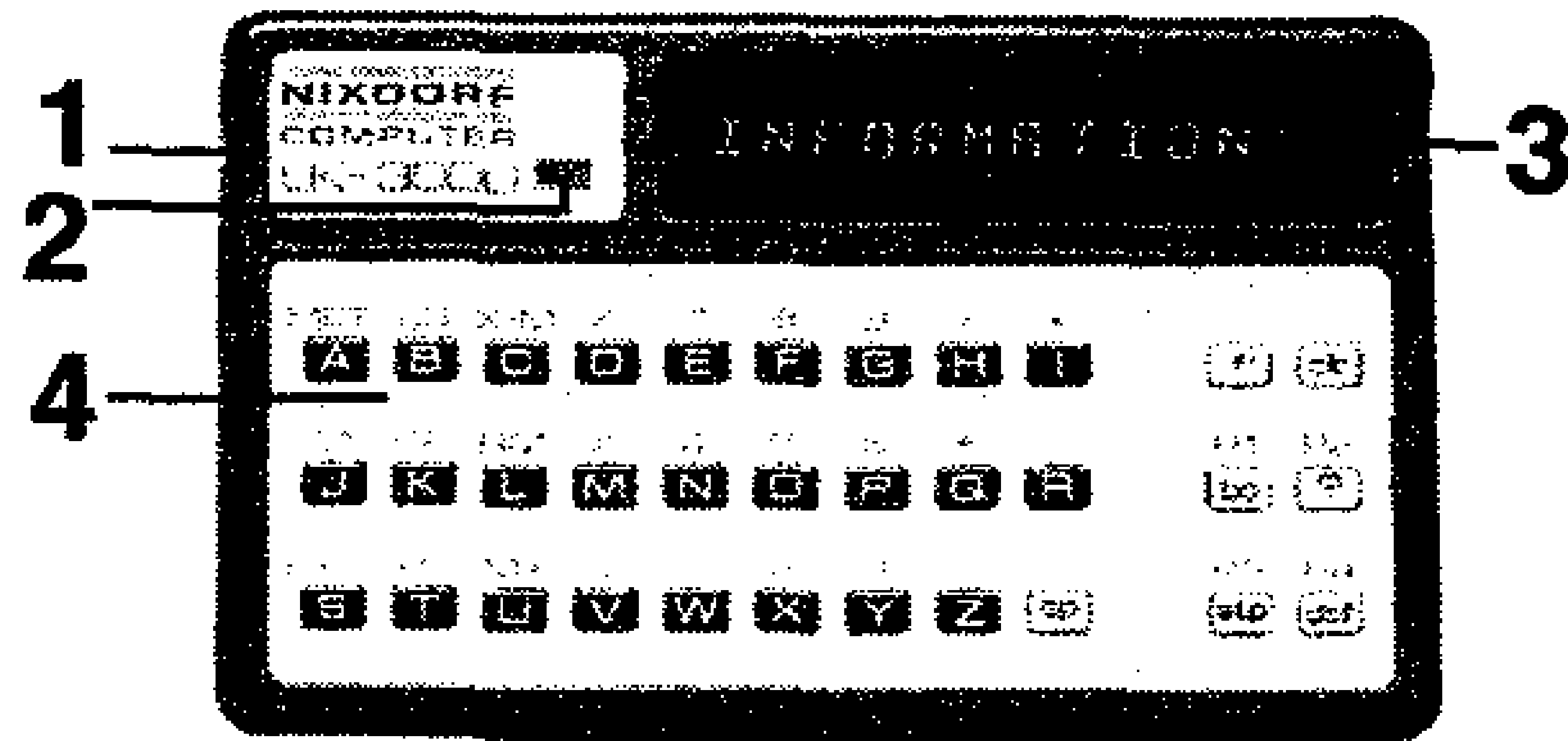
OPERATING TEMPERATURE: 0°C through 40°C.

DIMENSIONS: 95.3mm deep by 156.3mm wide by 31.8mm high.

DISPLAY: 16 character, 16 segment alphanumeric light-emitting diode with integral MOS-LSI display controller.

POWER CONSUMPTION: 0.5 watt.

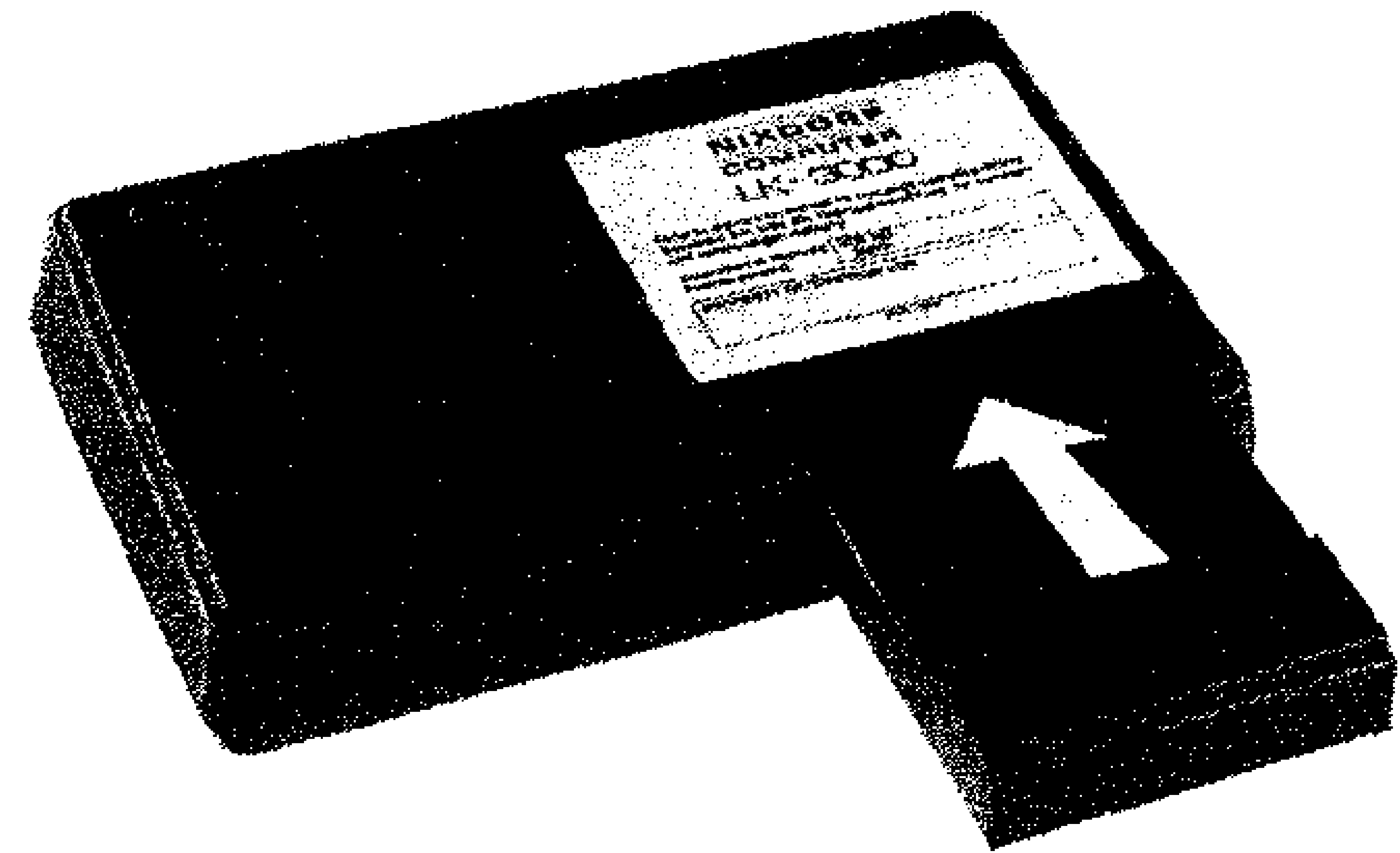
POWER SOURCE: DC, 500 milliamp-hour nickel cadmium rechargeable batteries. AC Adaptor/Charger will power the unit or recharge the batteries. 110 volt, 60Hz or 220 volt, 50Hz switch selectable. Use of any other Adaptor/Charger may damage the machine.



1. Connection for the AC Adaptor/Charger.
2. ON-OFF switch.
3. Alphanumeric Display with 16 character visual capacity.
4. Alphanumeric Keyboard allows you to enter letters or numbers, depending upon the module being used. You will notice the keys of the LK-3000 have letters printed above them. When you are using the LK-3900 Calculator module, you

may disregard the letters printed on the keys (except for `clr`); You will use only the characters printed on the face plate of the LK-3000.

INSERTING A MODULE



9 KEY FUNCTIONS USED WITH THE LK-3900

- clr** Clears the display and all previously entered data, including contents of the memory and any active program such as currency or measurement conversion. Press **clr** to start a computation completely fresh.
- P1** Clears the display and any current calculation, but does not clear the memory or any active program.
- P2** Clears the most recent entry without affecting any other entries. If you make a mistake in entering a number, you may remove it by pressing **P2** without disturbing any other numbers in the calculation.
- .** Enters a decimal point on the display.

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OTHER KEYS USED WITH THE CALCULATOR

- X↕M** Enters the number shown on the display into the memory, replacing any previous contents. The memory can be used to store constants for repeated use, partial results, or to keep running totals.
- M+** Adds the absolute value of the number on the display to any number already in memory, without disturbing any other operation.
- RM** Recalls the contents of the memory. Pushing **RM** during a calculation enters the contents of the memory into the calculation at that point.
- K** Enters the number displayed as a constant for use in multiple calculations. Recall by pressing **RM**.
- +/-** Used to change a number to positive or negative on the display.

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% Used in computing percentages.

As with most calculators, you simply enter the steps of a calculation in the order in which you wish to make them.

EXAMPLE: $(12 - 5 + 2) \times 36 \div 4 = ?$

1. Press **clr**.
2. Enter 12 **-** 5 **+** 2 **x** 36 **÷** 4 **=**

81

EXAMPLE: $.89 + (8.40 \times 20) - (5.25 \times 16) = ?$

1. Enter .89 and press **X↔M** to enter it into the memory.
2. Calculate 8.40 **x** 20 **=**
3. Press **M+** to add 168 to .89
4. Calculate 5.25 **x** 16 **=**
5. Press **+/-** to make 84 negative.

.89

168

84

This enables you to subtract from a number recalled from memory.

-84

12

6. Press **+** and **RM** to enter the number in memory to the calculation.
7. Press **=**.

168.89

84.89

EXAMPLE: WHAT IS 20% OF 350?

1. Calculate 350 **x** 20 **=**
2. Press **%**.

7000.

70.

EXAMPLE: A 25% DISCOUNT OFF \$18.52 IS WHAT AMOUNT?

1. Enter 18.52 **-**
2. Enter 25 **%** for the discount.
3. Press **=**. \$13.89 is the discounted price.

4.63

13.89

Always press **clr** before beginning a new calculation.

13 MEASUREMENT CONVERSION

KEYS USED FOR MEASUREMENT CONVERSIONS

- P4** Used to set English measures on the display.
- P3** Used to set metric measures on the display.
- US** Computes a conversion to a U.S./English measure.
- MET** Computes a conversion to a metric measure.
- P1** Stores a measurement conversion program in temporary memory.

With the LK-3900 Calculator module, your LK-3000 also becomes a metric conversion calculator. You can figure conversions in three categories:

	U.S.		Metric	
LENGTH:	inch	(IN)	meter	(M)
	foot	(FT)		(MM)
	yard	(YD)		(CM)
	mile	(MI)		(KM)

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VOLUME:	ounce	(OZ)	liter	(L)
	pint	(PT)		(ML)
	quart	(QT)		(CL)
	gallon	(GA)		(KL)

WEIGHT:	ounce	(OZ)	gram	(G)
	pound	(LB)		(MG)
				(CG)
				(KG)

SETTING MEASUREMENT COMBINATIONS

You can set any combination of measures in each category by pressing two keys. Always set the English measure first by pressing **P4**. The abbreviations (as indicated) will appear on the right of the display as you press the key. Then enter the corresponding metric measure by pressing **P3**. They will appear on the left of the display. Now that you know how to set the measures, you can easily do conversions.

FIGURING CONVERSIONS

HOW MANY INCHES IN A 101MM CIGARETTE?

1. Press **clr** .
2. Press **P4** until IN appears on the right of the display.
3. Press **P3** until MM appears on the left of the display.
4. Press **P1** to store the program in the memory.
5. Enter 101 on the keyboard.
6. Since you are looking for the U.S. English measurement, press **US** . The conversion, in inches, will appear on the display.

CM IN

MM IN

0

101

3.976377IN

HOW MANY LITERS IN 3.5 QUARTS?

1. Press **clr** .
2. Press **P4** until QT appears.
3. Press **P3** until L appears.
4. Press **P1** to store the program.
5. Enter 3.5 on the keyboard.
6. Since you are looking for the metric measurement, press **MET** . The conversion, in liters, will appear on the display.

CL QT

L QT

0

3.5

L 3.3124

17 CURRENCY CONVERSION

KEYS USED FOR CURRENCY CONVERSION

- EXC** Used to enter the rate of exchange between two currencies.
- C1** Converts your basic currency unit in the formula: $X = \text{so many units of } Y$.
- C2** Converts your secondary currency in the exchange formula.
- P1** Stores a currency exchange rate in temporary memory.

SETTING THE RATE OF EXCHANGE

To figure currency conversions you must first set the rate of exchange, which is usually expressed as "one unit of $X = \text{so many units of } Y$."

EXAMPLE: 1 FRANC = .234 DOLLARS

1. Press **clr**.
2. Enter .234.

18

3. Press **EXC**.
4. Press **P1** to enter the rate of exchange into the memory.

TO FIGURE THE CONVERSION

HOW MANY DOLLARS IS 440 FRANCS?

1. Set the rate of exchange as outlined.
2. Enter 440 on the keyboard.
3. Press **C2** since you are looking for dollars. 440 francs equals \$102.96.

19 OTHER PRODUCTS

Since the LK-3000 is basically a hand-held computer terminal, the real programming and permanent memory are included in the interchangeable modules. These modules allow you to change the function of the LK-3000 in seconds: for translation, for calculation, and much more...the possibilities are endless!

When you return your warranty card, we'll put you on our mailing list of Latest Developments which will keep you informed of new modules and attachments so you can keep your LK-3000 up-to-date.

The current library of modules include:

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BILINGUAL MODULES—up to 1500 useful words and phrases in English and its translations. Program contents help you find your way around, shop and talk to the natives. Modules available in:

LK-3050 ENGLISH-SPANISH
LK-3060 ENGLISH-FRENCH
LK-3070 ENGLISH-ITALIAN
LK-3080 ENGLISH-GERMAN
LK-3100 ENGLISH-POLISH
LK-3110 ENGLISH-PORTUGUESE
LK-3130 ENGLISH-GREEK

Modules soon to be available:

LK-3090 ENGLISH-SWEDISH
LK-3120 ENGLISH-RUSSIAN
LK-3140 ENGLISH-ARABIC
LK-3150 ENGLISH-HEBREW
LK-3160 ENGLISH-JAPANESE
LK-3170 ENGLISH-CHINESE

PERSON-TO-PERSON—a multi-lingual module that contains words and phrases useful in casual social conversation. Translate in any combination of six languages: English, Spanish, French, German, Italian, and Greek, all on one module.

LK-3200 PERSON-TO-PERSON

OLYMPIC MODULES—contains records and statistics of Olympic events for the 1980 Games in Moscow and Lake Placid.

LK-0280 WINTER OLYMPICS-LAKE PLACID

LK-0680 SUMMER OLYMPICS-MOSCOW