NIXDORF
COMPUTER

LK-3000

LANGUAGE MODULE

PORTUGUESE-ENGLISH
INGLÊS-PORTUGUÊS

NIXDORF
COMPUTER

CONTENTS

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-3110 module turns your LK-3000 computer into an English-Portuguese translator. For information on additional modules available for use with the LK-3000, see page 17 of this manual.

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. and international current (110/220 volts, 50-60Hz). You may need a simple plug adaptor to connect the Adaptor/Charger to electrical outlets in certain countries.

OPERATION

VOLTAGE SELECTION: Before using the LK-3800 Adaptor/Charger, be sure to set the voltage. Use a pen tip or small coin to move the recessed switch to 110 volt (U.S.) or 220 volt (Europe).

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

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 a wall outlet and the LK-3000, 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. Words that were displayed are automatically transferred to the temporary memory. To recall them, simply press def .

TECHNICAL SPECIFICATIONS

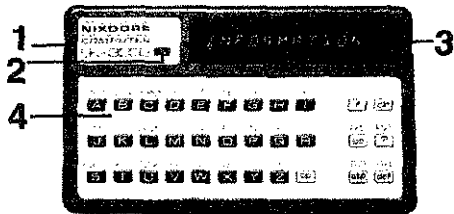OPERATING TEMPERATURE: 0°C through 40°C.

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.
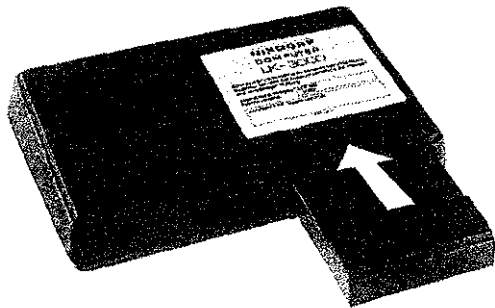
INSERTING A MODULE

1. Connection for the AC Adaptor/Charger.
2. ON-OFF switch.
3. Alphanumeric Display with a sixteen character visual display capacity. Longer entries are stored in the LK-3000's temporary memory and can be recalled with the touch of a key.
4. Alphanumeric Keyboard allows you to enter words or numbers, depending upon the module being used.

KEY FUNCTIONS USED WITH THE LK-3110

`clr` Clears the temporary memory. Whenever this key is pushed, the function of the module will appear on the display.

`bs` Backspaces an entry one letter at a time so that you can correct errors in spelling. When the memory is cleared, pushing this key will reverse the direction of translation being used.

`?` "Opens the dictionary" (permanent memory) of the LK-3110 module. Pressed in combination with any of the alphabetical keys, it quickly locates words and phrases. Press again and it translates them.

`stp` Enters words or phrases into the temporary memory so that you can build sentences. You may also use this key to move through the dictionary one word or phrase at a time.

`def` Translates constructed sentences as well as words and phrases. The words entered and their translation will read out across the display from right to left. You may replay the translation as many times as you wish.

`sp` Enters a space between words on the display.

`f` This key does not have a major function when used with this module.

BEFORE YOU BEGIN

The LK-3110 English-Portuguese module contains hundreds of words and phrases in English and their Portuguese translation. It is important to remember that words are programmed into the module in their simplest form. English verbs are first-person singular, present tense. Portuguese verbs are in their infinitive form, and most nouns are singular. For your convenience, many grammatically-correct phrases such as "What time does..." and "How much is..." are included in the program. Use these whenever possible when you are building sentences. Otherwise, you may refer to the handy Grammar and Pronunciation Guide on page 20 for tips on correct conjugation.

With the language module in place, turn on the power switch. The function of the LK-3110 will appear on the display. You can enter English and get Portuguese translations or vice versa. Choose the direction of translation by pressing the | bs | key.

REVIEWING THE DICTIONARY

You will find it very helpful to review the vocabulary included in the LK-3110 module so that you are familiar with its words and can take fullest advantage of its pre-programmed phrases.

TO REVIEW THE DICTIONARY:

1. Press any letter of the alphabet.

2. Press the | ? | key to "open the dictionary" (permanent memory) of the module. The first word or phrase beginning with that letter will appear.

3. Press | stp | to continue through the list of words.

4. If you wish to check the translation of any word without losing your place in the dictionary, press | ? | . To continue through the dictionary, press | stp | .

5. When all words and phrases beginning with that letter have been displayed, NOT FOUND will appear.

TRANSLATING A WORD
EXAMPLE: MONEY

1. Spell out MONEY on the keyboard. (If you should misspell a word, use `bs` to backspace to the error and correct it.)

| MONEY |

2. Press `?` to open the dictionary. MONEY will shift to the left on the display. This tells you the word "money" is included in the module's program.

| MONEY |

3. Press `?` again. The Portuguese translation will instantly appear. Or press `def` to see the entered word and its translation.

| DINHEIRO |

Special Messages
If you enter a word and get SEARCHING on the display, it simply means the LK-3000 is scanning the module's program. As soon as the words entered are found, they will replace SEARCHING on the display.

If you get NOT FOUND, it means the word entered is not included in the module's program. Try another word that has a similar meaning.

Always press `clr` before beginning a new translation.

Be aware that one given word may have different meanings in another language, depending upon the context. As you review the dictionary of this module, familiarize yourself with words that appear more than once and their respective translations.

USING THE DICTIONARY FUNCTION

The dictionary function is a great time-saver when you want to quickly locate words or phrases.

EXAMPLE: TRAVELER'S CHECKS

1. Instead of spelling out both words, enter the first two letters: TR

    | TR |

2. Press ? . The first word found that begins with the letters TR will appear.

3. Push stp until "traveler's checks" flashes onto the display.

    | TRAVELERS CHECKS |

4. Push ? for the translation.

    | CHEQUES DE VIAGEM |

The more letters you enter in Step 1, the more you narrow down the list of words the dictionary will

display. For instance, if you enter TRAV you will get a list of words that begin with those letters: TRAVEL, TRAVELER'S CHECKS. when all words in the program beginning with TRAV have been displayed, NOT FOUND will appear.

BUILDING A SENTENCE

Now that you are familiar with how the dictionary can work for you, it will be easy to make all kinds of sentences that will help you ask for directions, order dinner, make purchases or just communicate.

EXAMPLE: TAKE ME TO THE AIRPORT.

1. Enter TAK.

    | TAK |

2. Press ? and stp until TAKE ME TO appears. Once it is displayed, it is automatically entered into the temporary memory.

    | TAKE ME TO |

3. Enter THE. (For short words, it is easiest to simply spell them out.)

| THE |

4. Press | stp | . This enters THE into the temporary memory.

5. Enter AIR.

| AIR |

6. Press | ? | and | stp | until AIRPORT appears.

| AIRPORT |

7. Press | def | . The sentence you entered will move across the display, followed by the Portuguese translation: TAKE ME TO THE AIRPORT = ME LEVE PARA O AERO-PORTO.

You may replay the translation as many times as you wish by pressing | def | . Or you can instantly replay the translation a word or phrase at a time by pressing | stp | . This is convenient if you wish to write a translation down.

The temporary memory will hold up to eight words or pre-programmed phrases at a time. So if you have an exceptionally long sentence, you will have to translate it in sections. If you enter more than eight words or phrases SENTENCE FULL will appear on the display.

Now you know everything you need to know to translate electronically. Remember, all functions covered in this manual can be done in English or Portuguese. And with a little practice, you'll be translating on the LK-3000 like you've been doing it all your life.

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, 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 includes:

BILINGUAL MODULES—hundreds of 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-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

19

PERSON-TO-PERSON: A multi-lingual module that contains hundreds of words and phrases useful in casual social conversation. Translate in any combination of six languages: Spanish, French, German, Italian, Greek and English all on one module.
LK-3200 Person-to Person

CALCULATOR MODULE—turns the LK-3000 into a five-function calculator with memory that also does metric conversions. Another special feature allows you to figure currency exchange values. Indispensable, at home or abroad.
LK-3900 CALCULATOR

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

PRONUNCIATION

THE ALPHABET

There are 26 letters in the Portuguese alphabet: a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z. Of these, a, e, i, o, are vowels. The rest are consonants. The letters k, w and y are used only in certain foreign words and proper names, e.g. Yolanda, Kubitschek.

Guide to Pronunciation of Portuguese

Portuguese Letter	Explanation of Sound	Sample Portuguese Word
Vowels		

The sounds of vowels in Portuguese are affected somewhat by accents. The slight shades of pronunciation must be learned by practice and listening. Use the following as a guide to the general sounds:

a	'a' in father, but shorter	alma
e	between 'i' in bit and 'ea' in pear	mesa, papel

Portuguese Letter	Explanation of Sound	Sample Portuguese Word
i	'ee' in wheel	*livro*
o	'o' in Bob	cobra
o	'o' in cold	olho
u	'oo' in moon	cubo

Vowel Combinations

Certain combinations of vowels have special pronunciation rules:

ai	rhymes with pie	pai
ei	rhymes with place	lei
oi	similar to boy	doi
ui	as in "we," but sounded more rapidly	muito

Portuguese also has nasal combinations, which have no English equivalents: (note the tilde mark ~ on the a or o in some combinations)

ão	roughly like 'ou' in ounce	mâo
ãe	pinch your nostrils and say "eye"	mâe
õe	like the 'oi' in oink	pòe

In general, other combinations are sounded by pronouncing each vowel separately:
régua, fâtuo, canário etc.

Consonants

In general, the consonants are pronounced as in English, except for:

c	like a 'k' before a, o or u and consonants	caixa
c	like 's' in soft before e or i and if marked with a cedilla	cera, aço
ch	like the 'sh' in shoe	chover
g	like 'g' in garage before a, o, u and consonants	gazeta, grande
g	like the 'si' in vision before e or i	gelo
j	like the 'si' in vision	já, junta
r	single 'r' is a single tap of the tongue behind the upper teeth	caro

Portuguese Letter	Explanation of Sound	Sample Portuguese Word
	double 'rr' is trilled by letting the tongue rattle against the back of the upper teeth	carro
s	initial or before consonants, like the 's' in soft	sábado
	before p, t and f, or when followed by a word beginning with those letters, like the 's' in sugar	esposo
	between vowels, it is like 'z' in zebra	casa
x	sometimes like the 's' in sugar	deixa
	sometimes like the 'z' in zebra	exemplo
	sometimes like the 's' in task	pretexto
	(The differences must be learned from practice.)	
nh	In Portuguese, the combination 'nh' has a sound like the 'nion' in onion	cunhado, banhar
lh	'lli' as in million	milho

Accent and Stress of Portuguese

Portuguese is an accented language. Where there is an accent mark on a word, stress the syllable so marked: até, ambíguo. If there is a tilde (nasal vowel tone), stress the syllable so marked: ação.

Usually, the next-to-last syllable of Portuguese words is stressed, except where otherwise accented.

GRAMMAR

Articles and Nouns

Every noun in Portuguese is preceded by an article. Those which have "o" are known as masculine, those which have "a" are called feminine, but there is no strict logical reason for the breakdown. (Don't try to figure out why the Portuguese word for day is masculine, while the word for week is feminine!)

Plurals have either "os" (masculine) or "as" (feminine). If a Portuguese speaker wishes to say a or an (indefinite article), he or she will say "um" with

a masculine noun (um carro) and "uma" with a feminine noun (uma casa). Portuguese nouns *generally* take an 's' to make the plural, though sometimes a spelling change precedes the 's': man is "homem," men is "homens."

Adjectives
Generally, adjectives in Portuguese *follow* the noun they modify, *but the ordinals precede the noun.* All adjust their spelling according to whether the noun is masculine or feminine, singular or plural:

> o trem verme*lho*—a casa verme*lha*
> *um* velho carro (or um carro velho)

Adverbs
Most adverbs in Portuguese are formed by adding '-mente' to the feminine form of the adjective:

> primeiramente, imediatemente

Pronouns
Portuguese pronouns can be used as the subject: eu (I); você (you); ele (he); ela (she).

They can also be used as the object: mim (me); vos (to you).

Verbs
Portuguese has many verb forms. Here are a few general points that apply to all verbs:

- The verb "ter," which means to have, is also regularly used as the auxiliary to form compound tenses (I have worked, etc.)

- Most Portuguese verbs, however, are recognized only by the endings:

> Eu compro is the present tense
> (I buy, I am buying)
>
> Eu compr*arei* is the future
> (I will buy)
>
> Eu compr*ava* is the imperfect
> (I was buying)

It is advisable to get a verb wheel or a verb table and learn the forms.

- Questions and Negative statements:

  The usual way to ask a question in Portuguese is to use a question word and invert the usual word order of the verb and subject. The usual question words are que (what), quem (who), como (how), quando (when) or qual (which).

  Quando vem ele? Ele vem amanhã.
  (When is he coming? He is coming tomorrow.)

  To make a statement negative, put "não" (no) before the verb:

  > A casa não tem jardim
  > (The house has no garden.)

- The participles:

  Most Portuguese past participles end in '-ado' or '-ido,' depending on the class of verb. These forms are used as part of compound past tenses and as adjectives.

VERB:

> Ele tem falado comigo.
> (He has spoken with me.)
>
> A máquina está bem instalada.
> (The machine is well installed.)

Present participles end in '-ando,' '-endo' or '-indo,' depending on the class of verb. This form can be used with a part of the verb to be to show action going on:

> O homem está viajando.
> (The man is traveling.)