TRANSLATING MANUALS

Luciane Baretta
UFSC

DESPITE THE GENERAL ASSUMPTION THAT TRANSLATING is only a matter of easy and rapid transference of meaning from one language into another, anyone engaged in this task knows that translating is not so simple. In fact, what is thought to be the facilitating factor for most (as the text is already "built", the translator has only to change it into another language), is in reality the translator's hardest challenge, since s/he has to rewrite something "that already exists in a textual form in another language" (Costa, 1992:133). Thus, when working with a text written in English for instance, the translator has to tackle the laborious task of being faithful to the original message while writing the translated version, otherwise his/her work will not be considered as a translation.

According to Nida (1966:19, in: Garcia, 1992:85), translation is the adequacy of the "closest natural equivalent" from the source to the receptor language, "first in meaning and secondly in style". Together with Catford's (1965:1) definition that translating is "a process of substituting a text in one language for a text in another", we see that in order to produce a "good" translation, translators should have in mind that their work is not only dependent on the micro-structure of the text, i.e. words and sentences, but that it is also related to the textual message as whole. Translating a text is not only finding the approximate equivalence of words and sentences, but rather trying to maintain the source language textual

style, as well as its natural flow. Thus, as claimed by Azenha Jr. (1995), translators have to develop other competencies than those specifically related to the command of two linguistic codes (p.1), since competence in a foreign language does not ensure the task of translation.

Despite the information available (theories, techniques, strategies) for (better) producing and tackling translations, Nida (1966:13, in Garcia, 1992:76), suggests that all kinds of translation involve a) loss; b) addition and c) skewing of information. The first and third aspects of Nida's observation seem to be quite current: it is not un-usual to find translated texts where the reader has to disentangle or reinterpret the information. The addition of information, on the other hand, is not usual but when present, it is generally adequate and profitable, since the translator may "at times enrich or clarify the [source language] text as a direct result of the translation process", as argued by McGuire (1980:30, in: Garcia 1992:85).

The purpose of this paper is to analyze the translation of a radio-tape recorder instruction manual produced by *Cougarusa*. The product is imported by *National Olimpia Comércio Importação e Exportação Ltda*. and there is no reference to the entity responsible for the translation into Portuguese.

The text of the manual was chosen firstly, due to its applicability in everyone's life and secondly, due to the translator's responsibility when tackling detailed, specific and precise information (I hasten to say that I am not disregarding other types of translation, but rather emphasizing the consequences of (mis)translating processes involved in people's daily activities).

My primary intent is to examine how the translator(s) dealt with those problems related to the lexical, grammatical and stylistic shifts which occurred in the translation of this manual, since according to Garcia (1992), these are the most common difficulties when dealing with technical / scientific texts. For the analysis of technical terms in the translated manual, a person with a technical course in electronics was consulted in order to provide information

concerning the most common use of the Portuguese technical terms.

The basic framework of this paper is the article by I. W. Garcia, A Tradução do Texto Técnico-Científico, published in a special issue of Ilha do Desterro on translation, in 1992. Like Garcia's article, this paper is organized in three parts, where problems related to the lexical, grammatical and stylistic aspects will be discussed separately.

Aspects/ problems related to lexis

As claimed by Garcia in her article, lexical equivalence is the most current and difficult aspect for the translators. Generally, when there is no equivalent in the TL (target language), the translator has to find a way to paraphrase the meaning conveyed in the SL (source language), which is quite often longer than the original.

Technical terms like AC socket, AC wall outlet, speakers and headphone jack, are translated respectively, as entrada para eliminação de energia elétrica, tomada de saída na parede, alto-falantes and entrada para fone de ouvido. As we can observe, these attempts to illustrate the original meaning are not always successful and many times, are even unclear. In the first case, AC socket could be (better) translated as conector para cabo de força, a term that besides being clearer, helps to clarify the meaning of the second term which could be translated as simply as tomada, since there is no other meaning for "tomada" in Portuguese than "AC wall outlet".

In the case of *speakers* and *headphone jack*, the translator has made a good choice, specially when opting for *entrada* as the equivalent to *jack*, term which according to the *Dicionário de Termos Técnicos* (1980), is a "furo destinado a receber uma pega, tomada macho de telefone" (p. 458), among other less helpful explanations. The same does not occur with the *tuning scale* term, since the translator has unsuccessfully opted for the omission of the word *tuning* in the TL, an option that probably raises questions in the

450 Luciane Baretta

customer's mind while reading the single term mostrador.

Similar problems also occurred with isolated terms, like battery, unit, layers and well-known. The first two terms were primarily literally translated as bateria and unidade, then successfully changed to pilha and equipamento, though with no apparent correlation with context. However, it is interesting to observe that the second term unit, is not clear even in the SL text, which seems to adopt the term as an anaphoric reference to different terms such as: telescopic antenna, cassette recorder and deck(s), leaving a really hard task for the translator, who seems to disregard such differences.

In the case of *layers*, translated as *pedaços* in "loose layers of tape", the translator probably had to think very carefully how s/he could convey the general meaning of "fina camada" to the specific context of "finas camadas de fita que podem se soltar". Although I do not completely agree with the translator's choice of *pedaços*, I have no better suggestion for the term. In regard to the term *well-known*, however, the translator was not so successful. Translated literally as *bem conhecidas*, in "well-known brands of tape", the translator has tried to insert a common collocation in English into Portuguese idiom, that despite having the equivalent translation, is not currently used in our language, specifically in this kind of context. Thus, a better option for this would be simply *marcas conhecidas de fitas cassete*.

Another problem related to lexical equivalence is the misinterpretation of the SL message, which in the particular case of instruction manuals, can be a consequence of lack of knowledge about the equipment. In order to illustrate this fact, I would like to mention the term *dubbing*, used to refer to the recording feature from deck A to deck B. Quite interestingly, this term was translated as *dublagem*, a noun commonly used to refer to the "change of sounds and speech on a film or TV programme, especially to a different language" (*Cambridge International Dictionary of English*, 1995:430; also, *The Oxford Senior Dictionary*, 1985:189). Despite the fact that *dublagem* does appear as one of the possibilities of translation for *dubbing*, the translator reveals at this point, that s/ he has little knowledge about the product s/he is translating, since it is quite clear that a tape recorder "grava" and does not "dubla" songs and lyrics.

Yet, in the "how to adjust sound" section, we observe that in item b), *read* is translated as siga, term frequently used in Portuguese manuals:

If your unit is equipped with equalizer, please *read* the following instruction.

Se o seu aparelho possui Equalizador gráfico, por favor, siga as instruções seguintes:

Nonetheless, despite this attempt to make the English term fit the Portuguese usage, the translator failed in not considering the message as a whole, since *siga as instruções* does not adequately fit the information given below, which is informative rather than instructional:

1) Graphic equalizer (9) is a device by which you can change tone quality of sound by compensating its frequency characteristic. The controllable frequencies are 100Hz, 1KHz and 10KHz. (for more details, see appendix page xiv)

Aspects / problems related to grammar

When we compare two or more languages, we notice that each of them is particularly "equipped to express different real-world relations" (Ivir, 1981:56, in Baker,1992:83), thus producing differences in the grammatical structures, which are quite often the source of the shifts which have taken place between SL and TL message. These shifts or changes may occur either through the addition or through the omission of information/ terms that may exist or not in the SL text.

From the very beginning of this manual, in the description of

452 Luciane Baretta

the features of the tape-recorder, we already observe that the right column (i.e., the TL text) is longer than the left (i.e., the SL text). As we read through it, we observe that this difference in length is due to the attributive adjectives which obligatorily precede the nouns in the SL, rendering connectives between those terms unnecessary. However, when translated into Portuguese, adjective and noun do require a connective between them, otherwise they will not follow the TL grammatical structures, as we can observe in the examples below:

SL text

TL text

instruction manual tuning knob sound quality battery power

manual *de* instrução botão *de* sintonia qualidade *do* som alimentação *por* pilha

Continuing the reading of the instructions section, we observe that the first instruction given is also noticeably longer in the TL version, which has a little more than three lines of text, while the SL version has only two. This is due to the fact that the translator could not find specific Portuguese terms for AC power, AC socket and AC wall outlet, thus opting for an explanation (paraphrase) of those, which are actually, quite confusing (see appendix 1). The same problem appeared few lines below, again with the same terms, producing a formal but awkward translation: Remova o cabo de alimentação de energia elétrica da entrada para o mesmo.

Similar problems occurred throughout the manual. However, this does not mean that the translator has failed to "restructure" all the differences between English and Portuguese grammar. In fact, most of the translations are even better than the original, which some times is unclear and confusing, leaving few alternatives for the translator, who has to restructure a "bad" sentence. Some examples are:

Set function switch (12) to tape position, press play button (19), (24) of both deck A and deck B.

Coloque o seletor de funções (12) na posição TAPE e pressione as teclas PLAY (19 e 24) dos decks A e B.

(B)Load a cassette into the deck B cassette compartment (7).

Coloque uma fita no deck B (7).

(C) Depress the record, play button (24), (25), recording will start.

Pressione as teclas RECORD (24) e PLAY (25) e a gravação tem início.

In examples A and B, we see that the translator has opted for the omission of redundant terms, besides the adjustment of the reference numbers (19 and 24) that were not clear in the SL text. In example C there is the addition of the connective e, as well as the plurality of the noun *button*, options that added a "natural flow" to the message.

In regard to the prepositions, it is difficult to achieve a formal correspondence for them, mainly because of their great variety of meanings, which quite often, do not correspond to their literal or usual translation (Garcia, 1992: 82). Moreover, prepositions do have different interpretations because they are directly connected with the preceding word(s), which may produce completely different meanings for the same preposition. One example of this, is the preposition to that according to the context, assumes different equivalents in the TL:

To use this feature — Para usar este recurso
Set the function switch to radio position — Coloque a chave de função na posição Rádio
Adjust the volume control to a desired level — Ajuste o Controle de Volume em um nível desejado
Operations are referred to normal speed — As operações

se referem a uma velocidade normal.

Other examples, are the prepositions with (translated as com and no) and on (translated as sobre o and em) — see table below:

SL preposition	TL preposition	SL Text	SL Text
WITH ON	Com	Tighten these loose layers with a pencil	Aperte esses pedaços com um lápis
	No	recording is possible only with deck B	a gravação só é possível no deck B
	Sobre o	:detailed instruction on adjustion the antenna	instruções de- talhadas sobre o ajuste de antena
	Em	shown <i>on</i> "how to adjust sound"	indicada em "como ajustar o som"

Another characteristic phenomenon of grammatical shifts between English and Portuguese is the higher frequency of definite articles in the latter. Sometimes, the equivalence between the two is "perfect", as for instance in: the telescopic antenna — a antena teles-cópica, whereas in others, articles have to be included, as in: Adjust volume and sound quality — Ajuste o volume e a qualidade de som. In addition, some of the prepositions are followed by a definite article when translated to the TL as we can see in the following table:

Preposition in the SL	Preposition in the TL	
button on deck B	tecla NO deck B	
button of deck B	tecla DO deck B	
At uneven speeds	Numa velocidade irregular	

At twice the normal speed Ao dobro da velocidade normal deck A onto deck B deck A para o deck B

As we can observe, all the TL prepositions above have to comprise a definite or indefinite article in order to keep the agreement with the grammatical gender of the following term. This fact, however, does not occur in the SL since "English nouns are not regularly inflected to distinguish between feminine and masculine", thus not requiring the addition of an article to prepositions in order to distinguish between genders (Baker, 1992:90).

Considering the punctuation of the text, one may say that in general, the TL text tends to maintain the SL "division marks". Nonetheless, although English and Portuguese differ in their sentence structure (as claimed by Garcia (1992), the use of commas in English is not so strict as it is in Portuguese), the translator has made adequate inclusions of commas and periods, which even "enrich" even the SL text, which is sometimes awkward, as we observe in the example below:

Depress the pause button (20) to temporarily discontinue recording tape will stop at this point.

Pressione a tecla PAUSE (20) para interromper temporariamente a gravação. A fita vai parar nesse ponto.

Moreover, not specifically related to punctuation, but with other grammatical aspects, there is another occurrence which also does not "fit" English grammar rules. However, this does not cause serious problems to the translator who did a good job when adapting the SL into the TL message:

The tape of this unit is combined by high and normal speed. A função de gravação deste aparelho é combinada em velocidade alta e normal.

As we can observe, the verb adopted sounds a little strange in the context. In addition, the preposition is not adequate either,

Luciane Baretta

since the prepositions required by this verb are only against or with (Cambridge International Dictionary of English, 1995). Similarly to the SL text, combinada em is not a good option either in Portuguese. Nonetheless, it seems that the translator was not responsible for this "awkwardness", since the original text had this structure.

Aspects related to the SL style

Since manuals are designed to provide practical and specific information about the functioning of an equipment, they tend to be written in a formal and concise style, generally adopting short sentences, imperative verbs and uniformity in the choices for translating specific technical terms.

On the whole, one may say that the translator has maintained the SL style, adopting almost always, the same structure, i.e. the subject, verb, complements order. However, there are some differences which I think it is important to mention at this point.

Starting with the comparison of the manuals' design (see appendix 2), we notice that the Portuguese manual has an "introductory" section, which either does not exist or was dropped from the English version. Furthermore, when analyzing the radio-tape recorder drawings, designed to indicate the "place" of each button or switch, we can observe that the TL manual does not have references (translations) to the two types of equipment, i.e. with or without equalizer (see appendix 2). This omission, although not a crucial one, may cause problems to the reader who may not realize the difference between the first and the second drawing.

In relation to the text, there are also some differences, which may not be related to differences in styles, but simply to "omission" by the translator. A first occurrence can be found at the very beginning of the manual, where the translator drops the term "optional" when translating *luzes de discoteca*. Again, this may make a great difference for the customer, who will probably start look-

ing for the "disco light leds" that are not part of his/her equipment, fact that will be solved later on, in the "Disco Light" instruction section, where there is the specification: *opcional* (both in the S and TL texts). Another omission, perhaps thought as irrelevant by the translator, is the disregard to some reference numbers, as occurred in:

...the leds (2) around the speaker will flash. ...as luzes em volta dos alto-falantes piscarão.

Yet, considering the use of politeness devices, quite frequent in English but not in Portuguese, we can see that the translator has opted to omit the first and maintain the second occurrence of "please":

To insert the headphone, please turn the volume to... Para introduzi-lo, passe o volume para...

If your unit is equipped with equalizer, please read the... Se o seu aparelho possui Equalizador Gráfico, por favor, siga as...

There seems to be no apparent reason for omitting the first "please" — reinforcing the illocutionary force which does not exist in the SL — and translating the second, since this is not a common device of "Brazilian" manuals. Besides this, it is interesting to observe the translator's choice of anaphoric reference to "headphones", which is substituted by the oblique pronoun "-lo", as observed in the example above.

Finally, contrary to what was observed by Azenha Jr. (1995) when studying German and Portuguese manuals, the TL text maintains the general division of the SL text, characterized in both cases, by the use of titles and subtitles highlighted by the use of capital letters and bold type to separate the different sections of the manual.

Final remarks

Generally, when we read a manual and we do not understand what it is being said, we assume that it is due to our lack of knowledge either of technical terms or of the equipment. However, as we can observe in this paper, we should not feel so frustrated, since "bad structures" and confusing explanations of terms are a constant not only in the translated but also in the original version of manuals. Moreover, as already suggested by Nida in 1966, all translations involve loss, addition and skewing of information.

Nevertheless, the focus of this paper is not on classifying the TL text as a "good" or "bad" translation, but rather on presenting and discussing problems and solutions to aspects related to lexis, grammar and style. In addition, divergence in some aspects of the translation suggested here, should not be considered as the "correct" ones, but as options that exist for those particular terms.

- 0 ----

Note

- 0 --

^{1.} The term *battery* is first translated as *bateria* in "battery compartment"; then, it is changed to *pilha(s)* in "battery operation", "battery door" and "size batteries". Finally, it goes back to its first version of *bateria* in "the polarities of batteries context".

References

AZENHA JR., J. (1995). Tradução técnica, condicionantes culturais e os limites da responsabilidade do tradutor. Paper presented at IV CBLA.

BAKER, M. (1992). In Other Words. London: Routledge.

CAMBRIDGE (1995) International dictionary of English. Cambridge University Press.

CATFORD, J.C. (1965). A Linguistic Theory of Translation. London: Oxford University Press.

COSTA, W.C. (1992). The translated text as re-textualisation. In: *Ilha do Desterro*, 28, p. 133-135.

DICIONÁRIO DE TERMOS TÉCNICOS. (1980). Antas, L. M. (ed.). Ed. Angelotti Ltda.

GARCIA, I. W. (1992). A tradução do texto técnico-científico. In: *Ilha do Desterro*, 28, p. 75-85.

- O --

MACGUIRE, S. B. (1980) Translation Studies. New Accents: Routledge.

THE OXFORD SENIOR Dictionary. (1982). Oxford University Press.

APPENDIX I

INSTRUCTION MANUAL	MANUAL DE INSTRUÇÃO
speakers	alto-falantes
disco light leds (optional)	luzes de discoteca
tuning scale	mostrador
FM stereo indicator	indicador de FM estéreo
condensed MIC	microfone embutido
deck A	(deck A) compartimento de fita cassete
deck B	(deck B) compartimento de fita cassete
volume control	controle de volume
graphic equalizer (optional)	equalizador gráfico (opcional)
headphone jack	entrada para fone de ouvido
telescopic antenna	antena telescópica
function switch	seletor de funções
band switch	seletor de faixas de onda
tuning knob	botão de sintonia
pause button "A"	tecla de pausa "A"
stop/eject button "A"	tecla de parada/ejeção "A"
fast forward Button "A"	tecla de avanço rápido "A"
rewind button "A"	tecla de retrocesso "A"
play button "A"	tecla de reprodução "A"
pause button "B"	tecla de pausa "B"
stop/eject outton "B"	tecla de parada/ejeção "B"
fast forward button "B"	tecla de avanço rápido "B"
rewind button "B"	tecla de retrocesso "B"
play button "B"	tecla de reprodução "B"
record button "B"	tecla de gravação "B"
battery compartment	compartimento de bateria
voltage selector (for dual voltage version only)	seletor de voltagem (somente p/modelos de dupla
Voltage selector (for data voltage version only)	voltagem)
AC socket	entrada para eliminação de energia elétrica
disco light switch (optional)	seletor de luzes (opcional)
disso lights with (opins in)	
POWER SOURCES	FONTE DE ALIMENTAÇÃO
a) House current	a) Corrente doméstica
Insert one end of AC power cord into AC socket	Introduza uma extremidade do cabo de alimentação
(28) & the other end into AC wall outlet.	de energia elétrica na entrada para o mesmo (28) e a
(27) 27 27 27 27 27 27 27 27 27 27 27 27 27	outra extremidade do cabo na tomada de saída na
	parede.
Battery power will be disconnected automatically.	A alimentação por pilha é cortada automaticamente
For dual voltage version, make sure that the voltage	Para a versão de dupla voltagem, verifique se o
selector (27) is switched to your local voltage.	seletor de voltagem (27) está na voltagem local.
b) Battery operation	b) Funcionamento com pilhas
Open the battery door & insert 6 PCS UM-1 (size	Abra a tampa do compartimento de pilhas (26) e
D) batteries.	introduza seis pilhas UM-1 (tamanho D).
The polarities of batteries is shown on the battery	As polaridades das baterias encontra-se desenhada
compartment.	no compartimento para as mesmas.*
Pull out the AC power cord from the AC socket.	Remova o cabo de alimentação de energia elétrica
	da entrada para o mesmo (28). *

Diago i comi	
DISCO LIGHT (optional)	LUZES DE DISCOTECA (opcional)
To use this feature, switch the disco light switch	Para usar este recurso, coloque o seletor de luzes de
(29) to 'on' position, the leds (2) around the speaker will flash.	discoteca (29) na posição ON, as luzes em volta dos
	alto falantes, piscarão.
RADIO OPERATION	FUNCIONAMENTO DO RÁDIO
a) Set the function switch (12) to radio position.	a) Coloque a Chave de Função (12) na posição RÁDIO.
b) Select your desired broadcasting band by the	b) Selecione a sua faixa de radiodifusão desejada de
band switch (13).	faixas de Onda (13).
c) Rotate the tuning control (14) in the appropriate	c) Gire o controle de sintonia (14) na direção
direction until the desired broadcast is received.	apropriada até ser captada a transmissão desejada.
d) For FM reception, adjust the telescopic antenna	d) Para recepção de FM ajuste a antena telescópica
(11) appropriately to obtain the best reception on the	(11) apropriadamente para obter a melhor recepção
band selected.	na faixa selecionada.
For AM reception, rotate the unit to obtain the best	Para recepção de ondas médias (AM) gire a unidade
reception.	para obter a melhor recepção.
(See below for more detailed instruction on	(Veja abaixo as instruções mais detalhadas sobre o
adjustion the antenna). [Drawings are presented]	ajuste da antena). [Drawings are presented]
e) Adjust volume and sound quality, shown on "how	e) Ajuste o volume e a qualidade do som, indicada
to adjust sound".	em "como ajustar o som".
If you are receiving a FM station with stereo	Caso você esteja sintonizando uma estação FM com
broadcasting, the FM stereo indicator (4) will	transmissão em estéreo, o indicador de FM estéreo
illuminate.	(4) irá acender.
CASSETE RECORDER OPERATION	FUNCIONAMENTO DO GRAVADOR DE FITA CASSETE
The tape function of this unit is combined by high	A função de gravação deste aparelho é combinada
and normal speed.	em velocidade alta e normal.
High speed should be selected only when high speed	A alta velocidade só deve ser selecionada quando se
dubbing is performed,	faz gravação de fita para fita (high-speed dubbing),
so all operations are referred to normal speed unless	Sendo assim, todas as operações se referem a uma
specified.	velocidade normal a menos que seja especificada de
	forma diferente.
PLAYBACK	REPRODUÇÃO DE FITA CASSETE
With this unit it is possible to perform either	Com este aparelho é possível uma reprodução
individual playback with deck B or deck A.	individual, tanto no deck B como no deck A.
a) Simultaneous playback:	a) Reprodução simultânea:
Set function switch (12) to tape position, press play button (19), (24) of both deck A deck B.	Coloque o seletor de funções (12) na posição "TAPE" e pressione as teclas "PLAY" (19 e 24) dos decks A e B.
b) Continuous playback:	b) Reprodução contínua:
1. Set the function switch (12) to tape position.	I. Coloque o seletor de funções (12) na posição "TAPE".
2. Press both stop/eject buttons (16) (21) & insert	2. Pressione as teclas STOP/EJECT (16 e 21) e
recorded cassettes with full reel on the right into	introduza as fitas gravadas com as camadas de fita a
deck A & deck B then close the lids.	esquerda nos decks A e B, e então feche as tampas.
3. Depress the play button on deck A (19).	3. Pressione a tecla PLAY (19) A.
4. Depress the pause button on deck B (20).	4. Pressione a tecla PAUSE no deck B.
5. Then depress the play button on deck B (24).	5. Pressione então a tecla PLAY (24) no deck B.
6. Adjust the volume control (8) to a desired level.	6. Ajuste o Controle de Volume (8) em um nível desejado.
7. When a playback ends on deck A it will	7. Quando termina a reprodução no deck A, ele pára
automatically stop & release the play button of deck	automaticamente e solta a tecla PLAY do deck A.
A.	automaticamente e soma a tecta i EAT do deck A.
At the same time pause button of deck B is released	Ao mesmo tempo, a tecla PAUSE do deck B é solta
& start to playback.	e tem início a reprodução.

CASSETTES	FITAS CASSETES	
* Cassette tape selection	* Seleção de fitas cassete	
The quality and condition of the cassettes tapes used	A qualidade e condição das fitas cassete utilizadas	
	terão um efeito no desempenho do aparelho.	
will have a direct effect on the performance of this	terao um eleito no desempenno do apareino.	
unit.	724 - 4 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
Low quality tapes tend to break and stretch.	Fitas de baixa qualidade tendem a quebrar ou	
	esticar,	
And a broken tape can easily become entangled in	E uma fita quebrada pode facilmente se emaranhar	
the drive mechanism, causing major damaging.	no mecanismo de direção causando maiores danos.	
Stretched tapes will run at uneven speeds and will	Fitas esticadas correrão numa velocidade irregular e	
destroy anything recorder on them.	irão distorcer qualquer gravação que haja nelas.	
* Use only well-known brands of tape.	* Use somente marcas bem conhecidas de fitas cassete.	
* Use of C-120 (120 minutes) cassettes is not	* O uso de fitas tipo C-120 não é recomendado.	
recommended.		
The extreme thinness of this tape may result in	Por ser muito fina esse tipo de fita cassete pode	
breakage or other problems.	resultar em ruptura ou outros problemas.	
* Check to ensure there are no loose layers of tape	* Certifique-se de que não há pedaços visíveis de	
visible through the cassette centre window.	fita soltos, através da abertura central do cassete.	
Tighten these loose layers with a pencil or ball-point	Aperte esses pedaços com uma caneta ou lápis antes	
pen before inserting the cassette into the unit.	de colocar a fita no aparelho. [Drawings are	
[Drawings are presented]	presented]	
RECORDING FROM THE BUIL-IN RADIO	GRAVAÇÃO DIRETA DO RÁDIO	
a) Since recording is possible only with deck B (7)	a) Uma vez que a gravação só é possível no deck B,	
the following instructions are relevant to that deck	as instruções seguintes referem-se apenas a esse	
alone.	deck.	
b) When recording important selections, be sure to	b) Ao gravar seleções importantes, verifique se o	
make a preliminary test to ensure that the desired	material desejado está sendo devidamente gravado,	
material is being properly recorded.	fazendo um teste preliminar.	
1- Follow the steps in radio operation and tune to	1- Siga os passos de "Funcionamento do Rádio" e sintonize a estação desejada.	
the desire station.	2- Coloque uma fita no deck B (7).	
2- Load a cassette into the deck B cassette	2- Coloque uma fita no deck B (7).	
compartment (7).	2. Province se testes DECORD (24) a PLAN (25)	
3- Depress the record, play button (24), (25),	3- Pressione as teclas RECORD (24) e PLAY (25) e a gravação tem início.	
recording will start.	4- Pressione a tecla PAUSE (20) para interromper	
4- Depress the pause button (20) to temporarily	temporariamente a gravação. A fita vaí parar nesse	
discontinue recording tape will stop at this point.	ponto.	
To resume recording from the same point,	Para retomar a gravação do mesmo ponto,	
release the pause button by depressing it a second	Solte a tecla PAUSE ao comprimi-la uma segunda	
time.	vez.	
All buttons will be released automatically when the	Todas as teclas são soltas automaticamente quando	
end of tape is reached.	a fita chega ao final.	
However, radio reception will continue	Entretanto, a recepção do rádio não será	
uninterrupted.	interrompida.	

DUBBING FROM DECK A (6) TO DECK B (7)	DUBLANDO DO DECK A (6) PARA O DECK B (7)
a) The unit's dual deck system permits dubbing	a) O sistema de dois compartimentos de fitas da
operations without the use of another tape deck.	
operations without the use of another tape deck.	unidade permite operações de dublagem sem o uso
	de outro compartimento de fita.
Dubbing is performed from deck A onto deck B.	A dublagem é feita do deck A para o deck B.
b) Normal-speed dubbing as well as high-speed	b) Com esta unidade podem ser feitas dublagem em
dubbing may be performed with this unit.	velocidade normal e em alta velocidade.
I- Load a pre-recorded cassette tape into the	1- Coloque uma fita cassete pré-gravada no deck A
cassette compartment of deck A (6) & a cassette	(6) e uma fita cassete adequada para ser gravada no
tape suitable for recording into the cassette	deck B (7).
compartment of deck b (7).	
2- Set the function switch (12) to the tape position.	2- Coloque o seletor de funções (12) na posição TAPE.
3- Select the dubbing speed to either normal or high	3- Selecione a velocidade de dublagem na posição
position.	"normal" ou "Alta velocidade".
The normal position permits dubbing to be	A posição normal permite que a dublagem seja feita
performed at normal speed.	a velocidade normal.
The high speed position permits dubbing at twice	A posição de alta velocidade permite a dublagem ao
the normal speed.	dobro da velocidade normal.
4- Depress deck B pause button (20).	4- Pressione a tecla PAUSE (20) do deck B.
5- Depress deck B rec. Play button (24) (25).	5- Pressione a tecla PLAY (24) simultaneamente
	com a tecla RECORD (25) do deck B.
6- Depress deck A play button (19) then dubbing	6- Pressione a tecla PLAY (19) do deck A para
start.	iniciar a dublagem.
RECORDING FROM MICROPHONE	
	GRAVAÇÃO COM MICROFONE
a) Set the function switch (12) to tape position.	a) Coloque o seletor de funções (12) na posição
	TAPE.
b) Load a cassette tape suitable for recording into	b) Coloque uma fita cassete adequada no
the cassette compartment of deck B (7).	compartimento próprio do deck B (7).
c) Depress deck B record, play button (24) (25).	c) Pressione as teclas RECORD (24) e PLAY (25)
o proposition a record, play culton (21) (25).	no deck B.
10.6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
d) Speak your message through the condenser MIC	d) Fale sua mensagem através do microfone interno.
HOW TO INSERT THE HEADPHONE	COMO INTRODUZIR O FONE DE OUVIDO
To insert the headphone, please turn the volume to	Para introduzi-lo, passe o volume para 1/5 na escala.
1/5 in scale.	i i i i i i i i i i i i i i i i i i i
When the headphone is plugged, speakers will be	Quando o fone de ouvido está ligado os alto-falantes
disconnected automatically.	serão automaticamente desligados.
HOW TO ADJUST SOUND	COMO AJUSTAR O SOM
a) Sound level can be adjust by volume control (8).	a) O nível do som pode ser ajustado através do
	botão VOLUME (8).
b) If your unit is equipped with equalizer, please	b) Se o seu aparelho possui Equalizador gráfico, por
read the following instruction.	favor, sigas as instruções seguintes:
	Conservation and address of the conservation and the conservation and the conservation and the conservation are conservation are conservation and the conservation are conservation are conservation are conservation and the conservation are conservation are conservation are conservation and the conservation are conservation are conservation and the conservation are conservation and conservation are con
Otherwise, you may skip this section.	Caso contrário, você poderá desprezá-las.
1- Graphic equalizer (9) is a device by which you	1- O equalizador gráfico (9) é um artifício que lhe
can change tone quality of sound by compensating	permite mudar a qualidade de tom do som
its frequency characteristic.	compensando a sua característica de frequência.
The controllable frequencies are 100Hz, IKHz, and	As frequências controláveis são: 100 Hz, 1 KHz e
10KHz.	10 KHz.
<u> </u>	
2- By controlling the levels of each range, sounds in	2- Mediante o controle dos níveis de cada faixa,
any frequency characteristics desired may be	podem ser reproduzidos sons em qualquer
reproduced.	característica de frequência desejada.
78 '.	The second of th

MAINTENANCE	MANUTENÇÃO
CLEANING THE TAPE HEADS	LIMPEZA DOS CABEÇOTES DE GRAVAÇÃO
Clean the heads frequently to remove dust and tape residue.	Limpe os cabeçotes freqüentemente para remover a poeira e os resíduos das fitas.
Dirt on the heads will impair the sound quality of both recording and playback.	Sujeira nos cabeçotes prejudica a qualidade do som na gravação e na reprodução.
a) The simple method is to use a head cleaning cassette, available at most audio stores.	a) O método simples consiste no emprego de uma fita cassete limpadora de cabeçote, a venda na maior parte das lojas de artigos de áudio.
Follow the instructions supplied with the cleaning cassette.	Siga as instruções fornecidas com a fita cassete de limpeza.
b) The heads can be also cleaned manually:	b) Os cabeçotes também podem ser limpos manualmente:
1- Depress the eject button of deck A and deck B in order to open the cassette compartment.	I- Pressione a tecla EJECT do deck A e deck B, a fim de abrir os compartimentos de fitas cassetes.
Remove the cassette from the compartment.	Remova a fita do compartimento.
2- Depress the play button of deck A and deck B.	2- Pressione a tecla PLAY do deck A e deck B.
3- Wipe the heads with a soft lintfree cloth or cotton	3- Limpe os cabeçotes com um pano macio sem
swab that has been partially soaked in alcohol (mehtylated spirit),	fiapos ou um cotonete parcialmente encharcado em alcool metílico,
until the heads are free of all dirt and residue deposits.	Até os cabeçotes ficarem livres de toda sujeira e depósito de resíduos.

APPENDIX II

Parabéns

Nocl acaba de adquirir um sistema de som com padrko inter-nacional de qualifade.

Tera usqu'ari de toda a potencialidade do sus nevo aperelho, leia com atençho o Manual de Instruçbes. Muma linguagem simples et didelite, de val cestinar a voci o manuscio correto do aparalho, a mais uma vez parables.

Tem seus de diviridas, contate o Dosto Misto de Assistância ten esta producio, ocid v. S. necesbert um atendimanto par-sonalizado, intiento-chie a especialista tenta mais prodyma.

- 2 Luzes de Disco

- 2 Luzes do Discoteca 3 Mostrador 4 Indicador de FM Esistino 5 Micrione Embusido 6 Olock AJ Compartimento de Fila Cassole 7 Clack (B) Compartimento de Fila Cassole 8 Convolo de Volume 9 Equalizador d'Aláco (opcional) 10 Entrada pare Forse de Curido

- 11 Antena Telescópica 12 Seletor de Funções 13 Seletor de Faixas de Onda 14 Botão do Sintonia

- 131 Servica de Sintoria 15. Tecla de Pausa (*) 15. Tecla de Pausa (*) 16. Tecla de Parada/Ejeção (*) 17. Tecla de Retrocesso (*) 18. Tecla de Retrocesso (*) 19. Tecla de Reprodução (*) 20. Tecla de Pausa (*) 21. Tecla de Pausa (*) Tecla de Avanço Rápido (*)

- 21 l'ecte de Paradell'Ejectlo "B"
 22 Tecte de Avanço Rispido "B"
 23 Tecte de Petrocaso "B"
 24 Tecte de Reprodução "B"
 25 Tecte de Reprodução "B"
 25 Tecte de Gravação "B"
 26 Compartimento de Busteria
 27 Seletto de Voltagem (Somente para Modoios de Dupla
- 28 Entrada para Eliminação de Energia Elétria 29 Seletor de Luzes de Discoteca (Opcional)

Fonte de Alimentação A) Corrente Doméstica

j Corronte Domesaca Infrodruz uma extremidade do cabo de alimentação de energia elétrica na entrada para o mesmo (28) e a outra extremidade do cabo na tornada de serida na paraçu. A alimentação por pilha é cortade automali

y runcionamento com rienas. Abra a tampo de compartimento do piñas (26) e introduza seis piñas UM-1 (amanho I). Removo o cabo de alimentação de energia elétrica da entrada pera o mesmo (26). As polaridades das beterias encontra-se desenhada no comparimento para as mesmas.

- DISCO LIGHT LEDS (OPTIONAL) TUNING SCALE FM STEREO INDICATOR

- FM STEREO INDICATOR
 CONDENSER MIC
 DECK A
 DECK B
 DECK B
 COLUME CONTROL
 GRAPHIC EQUALIZER (OPTIONAL)
 HEADPHONE JACK
 TELESCOPIC ANTENNA
 TELESCOPIC ANTENNA

- TELESCOPIC ANTENNA
 FUNCTION SWITCH
 BAND SWITCH
 TUNING KNOB
 PAUSE BUTTON 'A'
 STOPPEJECT BUTTON 'A'
 FEST FORWARD BUTTON 'A'
 REWIND BUTTON 'A'
 REWIND BUTTON 'A'
- 18,

- REWIND BUTTON 'A'
 PAUSE BUTTON 'B'
 STOPPEJECT BUTTON 'B'
 FAST FORWARD BUTTON 'B'
 REWIND BUTTON 'B'
 PLAY BUTTON 'B'
 PLAY BUTTON 'B'

- PEAT SUTTON '8'
 SATTERY COMPARTMENT
 VOLTAGE SELECTOR (FOR DUAL VOLTAGE VERSION ONLY)
- LIGHT SWITCH (OPTIONAL)

POWER SOURCES
A) HOUSE CURRENT
HISBERT ONE EMD OF AC POWER CORD INTO AC SOCIET (28) 4 THE OTHER
END INTO AC WALL CUTLET. BATTERY POWER WILL BE DISCONNECTED

TO USE THIS FEATURE, SWITCH THE DISCO LIGHT SWITCH (29) TO 'ON' POSITION, THE LEDS (2) AROUND THE SPEAKERS WILL FLASH.

- RADIO OPERATION

 A) SET THE FUNCTION SWITCH (19 TO RADIO POSITION

 B) SELECT YOUR DESIRED SHOULD ATTHICE AND SWITCH (19)

 THE DESIRED SHOULD AST IN RECEIVED.

 FOR PIN RECEIPTION, ADJUST THE TELESCOPIC ANTERNA (11)

 APPROPRIATELY TO OSTAIN THE SEST RECEIPTION ON THE SAND

 BLUCTED. FOR AM RECEIPTION, ADJUST ADJUST TO OSTAIN THE SEST

 RECEIPTION, IGSE SECON FOR MORE DETAILED INSTRUCTION ON ADJUSTMENT THE SEST

 RECEIPTION (19)

 RECEIVED.





E) ADJUST VOLUME AND BOUND QUALITY, SHOWN ON "HOW TO ADJUST SOUND"

F) IF YOU ARE RECEIVING A FM STATION WITH STEREO BROADCASTING, THE FM STEREO INDICATOR (4) WILL ILLUMINATE.

CABSETTE RECORDER OPERATION
THE TARE FUNCTION OF THIS UNIT IS COMBINED BY HIGH AND HORMAL SPEED.
HIGH SPEED SHOULD BE SELECTED ONLY WHEN HIGH SPEED DUBBING IS
PERFORMED, SO ALL OPERATIONS ARE REPERBED TO NORMAL SPEED UN

PLAYEACK
WITH THIS POSSIBLE TO PERFORM EITHER INDIVIDUAL PLAYBACK
WITH DECK & ON DECK A.
A) SIMULTAREOUS PLAYBACK:
SET PULLFOOD SWITCH (19) TO TAPE POSITION, PRESS PLAY BUTTON (19),
(24) OF BOTH DECK A. DECK B.
COMPISSIOUS PLAYBACK:

1. BET THE PULLFOOD SWITCH (12) TO TAPE POSITION.
2. PRESS BOTH STOPPISCT BUTTONS (16) (21) & INSERT RECORDED
CASE THE THIN THE PLAY BUTTON ON DECK A LIFE TO THE POSITION.
2. SEPERS STATE PLAY BUTTON ON DECK A LIFE TO THE POSITION.
2. SEPERS STATE PLAY BUTTON ON DECK A LIFE TO THE POSITION.

CLOSE THE LIDS.

J. DEPRESS THE PLAY BUTTON ON DECK A (18).

DEPRESS THE PAUSE SUTTON ON DECK 8 (26).

THEN DEPRESS THE PAUSE SUTTON ON DECK 8 (26).

ADJUST THE VOLUME CONTROL (8) TO A DESIRED LEVEL.

MICH PLAY WOUND CONTROL (8) TO A DESIRED LEVEL.

MICH PLAY SUTTON OF DECK A IT WILL ANTONATIONALLY STOP A RELEASE THE PAUS SUTTON OF DECK 8 IS THE LEASE A START TO PLAYMACK.

