



WORLD CUSTOMS ORGANIZATION
ORGANISATION MONDIALE DES DOUANES

Established in 1952 as the Customs Co-operation Council
Créée en 1952 sous le nom de Conseil de coopération douanière

HARMONIZED SYSTEM
REVIEW SUB-COMMITTEE

-
27th Session
-

NR0360E1
(+ Annexes I to III)

O. Eng.

Brussels, 5 February 2003.

COMPREHENSIVE REVIEW OF THE EXPLANATORY NOTES

POSSIBLE AMENDMENT OF THE EXPLANATORY NOTES

TO HEADINGS 85.17 TO 85.22

(Item C.6 on Agenda)

Reference documents :

NR0306E1 (RSC/26)

NR0332E3 – Annex E/15 (RSC/26 - Report)

I. BACKGROUND

1. At its 23rd Session (March 2001), the Review Sub-Committee discussed the issue of the comprehensive review of the HS Explanatory Notes, taking into account the points raised by the Secretariat in Doc. NR0150E1, in particular the scope of the updating of the existing Explanatory Notes, by :
 - deleting references to obsolete products and technology,
 - substituting references to current products and technology,
 - restructuring the Notes to make them easier to understand, and
 - supplementing the Notes to make them more complete.
2. In accordance with these discussions, amendments to the Explanatory Notes to headings 85.17 to 85.22 were prepared as a joint proposal by the Secretariat and an officer of the Australian Administration.
3. At its 26th Session, the Review Sub-Committee carried out a preliminary examination of the proposed amendments and agreed to continue the discussion at its next session.

Note : Shaded parts will be removed when documents are placed on the WCO documentation database available to the public.

File No. 2930

For reasons of economy, documents are printed in limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.

II. SECRETARIAT COMMENTS

4. The present document is a revised version of the relevant part of Doc. NR0306E1 prepared by the Secretariat for the 26th Session of the Review Sub-Committee.
5. With a view to facilitating the discussion, the Secretariat has set up three annexes to the present document :
 - In Annex I the usual presentation of the proposed amendments and new texts is used (i.e., “delete and substitute” format).
 - In Annex II the presentation involving strikethrough and underlining is used : the proposed deletions are indicated by “strikethrough” text, whereas new texts are indicated by underlining. Texts that were merely renumbered or relettered have not been included.
 - In Annex III the comments on the suggested changes made by delegates at the Sub-Committees 26th Session are reproduced.
6. The **Australian** “Explanatory Memorandum” and the Secretariat’s own comments (in bold) are reproduced below.

Explanatory comments for each heading

Heading 85.17

7. The opening paragraph was amended in an attempt to clarify the definitional explanation of “electrical apparatus for line telephony or line telegraphy” which is the primary test that apparatus must pass to meet the terms of the heading. Much of the former opening paragraph has been retained but expanded upon, based on information from industry of changing technology. An example of this is the reasons given in a 1998 decision handed down by the **Federal Court of Australia, *Cray Communications Limited v Collector of Customs*, Judgement No. 122/98**, on appeal from the Administrative Appeals Tribunal. The goods in question were multi-function access and backbone switches.
8. Telegraphy essentially means, as the Tribunal found, a message transmitted by electricity. More formally, according to the evidence, it is a field of technology that transmits codes which may represent character-based, graphic or image-based information across a communications medium. (The machines in question can transmit codes across the communications medium constituting a telephonic network).
9. In the reasons for the decision the term “communications medium” was mentioned but as the terms of the heading require that telecommunication be by line, the term “line communications medium” was used for the definitional explanation. The definition of “line communications medium” used was an attempt to cover the concept of multi-mode line communications networks rather than the simpler former definition, which seems outdated.

10. The amended definitional explanation is also an attempt to distinguish between “telephony” and “telegraphy” and is sourced from the above-mentioned Federal Court decision and from the Illustrated Dictionary of Electronics, Seventh Edition, edited by Stan Gibilisco, McGraw-Hill Companies Inc., 1997. The following definitions from that publication are relevant :

telephony - the branch of electrical communications dealing with the transmission and reception of sounds – especially over wires.

telegraphy - the branch of electrical communications that deals with the transmission and reception of messages by means of prearranged codes – especially over wires.
11. The final sentence of the amended opening paragraph was included to clarify that transmission can be by analogue or digital means. The comments made at the start of this memorandum regarding the inclusion in the General Explanatory Note to Section XVI of an explanation of “analogue” and “digital” are relevant.
12. The next paragraph was amended by the addition of “or for digital line systems” merely to align the paragraph with the terms of the heading.
13. The former groupings (I) **TELEPHONIC APPARATUS**, which included switching apparatus, (II) **TELEGRAPHIC APPARATUS**, which did not include any switching apparatus, and (III) **APPARATUS FOR CARRIER-CURRENT OR FOR DIGITAL LINE SYSTEMS** have been amended to align with the subheading hierarchy, given that there is no clear delineation in the terms of the heading, particularly for switching apparatus.
14. The amended groupings are (I) **TELEPHONIC APPARATUS**, which does not include switching apparatus, (II) **TELEGRAPHIC APPARATUS**, (III) **TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS**, (IV) **APPARATUS FOR CARRIER-CURRENT OR FOR DIGITAL LINE SYSTEMS**.
15. Under new part (I) (A), item (2) the description has been amended to include combined transmitters and receivers in the form of a “combined headphone and microphone, designed to be worn on the user’s head.”.
16. New item (3) was added to expand on the description of a telephone set. The source of this information was the Modern Dictionary Electronics, Sixth Edition, Rudolf F Graf, 1990.
17. New item (4) amended present item (3) by changing “bell or buzzer” to the broader term “ringer” and provides a brief description of their operation. Call warning devices in telephone sets can also incorporate lights or lamps so these were also included.
18. New item (5) amended former item (4) by including the common term “switchhook” and by providing a brief description of its function.
19. New item (6) amended former item (5) by updating the description of the dialling selector.
20. The former paragraph commencing with “Other devices occasionally fitted...” was deleted and replaced by a new paragraph commencing with “Telephone sets may incorporate or have

fitted...". The new paragraph substantially expands on the previous paragraph to reflect some of the features commonly found in many telephones that are currently commercially produced.

21. The paragraph commencing with "Telephones may be mounted ..." was amended by moving the reference to "videophones" to a new paragraph by itself, under part (I)(C) "Videophones". A reference to "magnetic card operated", as well as the existing coin-operated public telephones was added as these are quite common.
22. The following paragraph was deleted as it is covered by the new paragraph commencing with "Telephone sets may incorporate or have fitted ..." mentioned above.
23. The new paragraph commencing with "The heading covers all kinds of telephone sets including ." was added to provide two examples of the types of cordless telephone sets (at new item (i)) and another type of telephone (at item (ii)) which would be classified to the heading. These are cordless telephones that are presented with their base units, which are connected by line to the telephone network. They are classified in heading 85.17, as electrical apparatus for line telephony by application of GIR 1. The reference sources for the first example at item (i) and the example at item (ii) are Australian classification rulings. The reference source for the second example at (i) was an article in Electronics Australia Magazine, March 2000 edition.
24. As previously mentioned, the present items (B) "**Non-automatic switchboards and exchanges.**" and (C) "**Automatic switchboards and exchanges.**" have been moved to new part (III) **TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS** and amended. They will be discussed later.
25. New paragraph (C) "**Videophones**" has previously been discussed.
26. The opening paragraph to part (II) **TELEGRAPHIC APPARATUS** has been changed to reflect the amended definitional explanation at the start of the EN to the heading.
27. Under part (II), former item (A)(1) has been deleted. Advice from industry was that Morse type keys are obsolete and that Morse code for telegraphic purposes is no longer used.
28. New item (1), (present item (2)), was amended by adding the term "(teletypewriter transmitters)" to clarify the existing explanation. The reference source here was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000. The terms "letter, figure or other sign" were simplified by amending them to "character".
29. No information on the obsolescence or otherwise of "Breguet, Hughes, Baudot, etc., transmitters" could be obtained, so any recommendation as to the relevance of these articles to the heading has not been made.
30. Former items (B) (1) and (2) have been deleted for the same reasons as former item (A)(1) discussed above.
31. New item (B) (2) has been amended to provide an expanded explanation of these apparatus. The reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000.

32. No information on the obsolescence or otherwise of item (C) “Picture telegraphic apparatus” and item (D) “Special ‘telecomposing’ apparatus” could be obtained, so any recommendation as to the relevance of these articles to the heading has not been made.
33. The first paragraph of new item (E) was amended by the addition of the commonly known abbreviation of “fax” for facsimile machines. A new paragraph was added after this paragraph to include digital fax machines and to explain their operation. The reference source was the Encyclopaedia Britannica, 1999.
34. A new paragraph was added which excludes digital multifunction machines connected to a telephone line and a computer and which perform a number of functions to Chapter 84 (either heading 84.71 or 84.72). This is consistent with the same machines being excluded from heading 90.09.
35. New part (III) **TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS** was created separately to align with the subheadings, as previously discussed, but also because current switching apparatus perform telephonic and telegraphic switching, with no distinction between the switching functions.
36. New item (A) “**Automatic switchboards and exchanges**” was placed first because they are the most prevalent, e.g., private branch exchanges (PBX). The switching operations nowadays are performed electronically with a heavy reliance on microprocessors and integrated circuits and the like. The devices mentioned in the new paragraph are those that typically comprise automatic switchboards and exchanges. Reference sources were the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000 and the Encyclopaedia Britannica, 1999.
37. The next two paragraphs in the EN, which relate to “selectors” in automatic switchboards and exchanges remain unchanged from the former EN. No information was able to be obtained as to whether these paragraphs warrant remaining in the EN, particularly whether they represent obsolete technology.
38. The new penultimate paragraph of item (A) was added merely to provide some information on the type of ancillary features that are commonly incorporated in automatic switchboards and exchanges.
39. The new final paragraph of item (A) was added to explain that automatic switchboards and exchanges form part of the public network or are PBXs, and that although automatic, some operator intervention may occur.
40. New item (B) “**Non-automatic switchboards and exchanges**” was amended from the previous part (I)(B) and considerably shortened, because the technology is obsolete. Although not deleted from the EN it is questionable whether these apparatus are still traded in significant quantities. If they are found not to be traded it is recommended that this paragraph be deleted from the EN.
41. New item (C) “**Least cost routers**” was added as an example of another switching apparatus that falls to the heading. These apparatus select and divert telephonic

communications to the appropriate network. They are identified as telephonic switching apparatus and classified in heading 85.17 by application of GIR 1. The reference source was an **Australian** classification ruling.

42. New Part (IV) **“APPARATUS FOR CARRIER-CURRENT LINE SYSTEMS OR FOR DIGITAL LINE SYSTEMS”**. The opening paragraph was amended by changing the types of information to accord with the definitional explanation at the first paragraph of the EN.
43. The next paragraph was deleted and the articles mentioned were included in new items (A) and (B).
44. New items (C) to (F) were added to expand on the examples of the apparatus that fall in the heading. The reference sources were **Australian** classification rulings.
45. Caller number display units are connected to a telephone set. Their function is to display the telephone number of an incoming call. They are classified in heading 85.17, as electrical apparatus for line telephony by application of GIR 1. They are connected to the network via the telephone set in order to perform their intended function. They are classified in subheading 8517.50, as other apparatus for carrier-current line systems or for digital line systems by application of GIR 6.
46. Codecs are devices that have a function that is somewhat similar to modems, which are already included in the EN. Codecs compress digital signals (data), transmit the compressed data and receive and decompress the data. Data is compressed to achieve improved transmission efficiency. Similarly modems convert digital signals to analogue signals, transmit the analogue signals, and receive and revert the analogue signals to digital signals. Broadly speaking the functions of a codec and a modem could be described as the manipulation and transmission/reception of digital signals. As modems are classified in heading 85.17 as apparatus for carrier-current line systems, it is logical that codecs are also classified to the heading, as apparatus for digital line systems by application of GIR 1.
47. Pulse to tone converters are devices which convert the electric pulses generated by a pulse dial telephone to the equivalent audible tones generated by a tone dial telephone. The purpose of these devices is to allow pulse dial telephone users access to telecommunication facilities, which are only receptive to tones. They are apparatus for carrier-current line systems and are classified in heading 85.17 by application of GIR 1.
48. The devices mentioned at item (F) are a composite communications device, which is a combination telephone and internet terminal. It was considered that these devices fell in subheading 8517.50 as they are identified as an article that is more than a telephone set, rather they are a communications device which incorporates a telephone set. A principal function could not be identified as the telephone function and the internet or e-mail function are of equal importance, therefore Note 3 to Section XVI could not be applied. As the device is not a telephone set it doesn't fall in subheading 8517.19 but falls in subheading 8517.50 by application of GIR 1.
49. The exclusions which follow PARTS were amended by the addition of new exclusion (h) “Data encryption devices...”, as the devices mentioned are not designed for the transmission of

data, they are designed to encrypt data so that it cannot be understood if intercepted. These devices are excluded from heading 84.71 by Chapter 84 Note 5(E). As no other heading describes their function they are classified in heading 85.43 by application of GIR 1. This is based on an Australian classification ruling.

Heading 85.18

50. Item (2) of part (A) **MICROPHONES AND STANDS THEREFOR** was amended by adding an example of the use to which piezo-electric microphones are put. This was included after advice from a technical education institution.
 51. "Dynamic microphones" was added to item (3), as this is an alternative name for moving coil microphones. The reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000.
 52. The inclusion of "condenser" in item (4) was made for the same reasons as those mentioned in the preceding paragraph. The remaining amendments were made for clarification purposes. The reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000.
 53. The last paragraph before part (B) was amended on the advice of a technical education institution. Further details about the digital microphone are contained on a brochure relating to the Beyerdynamic MCD 100 Digital Condenser Microphone. The brochure is available from the Australian Administration.
- (B) **LOUDSPEAKERS, WHETHER OR NOT MOUNTED IN THEIR ENCLOSURES** was amended as follows.
54. The phrase "from an amplifier" was added to the opening paragraph for clarification purposes.
 55. The amendments to item (3) were made because "condenser-type loudspeakers" is an alternate name used for these loudspeakers. The addition of "(or electrodes)" was made for clarification purposes. The reference source for these amendments was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000.
 56. The amendments to the paragraph after item (3) were made on advice from a technical education institution.
 57. The addition of a paragraph before part (C) was to direct that loudspeakers for a computer, when presented separately, remain in this heading. Such loudspeakers may be considered an accessory for a computer and heading 84.73 would be a viable option. These types of loudspeakers are classified in heading 85.18 by application of GIR 3(a). The reference source was an Australian classification ruling.
 58. (C) **HEADPHONES AND EARPHONES, etc.**, was amended by the addition of "or computers" to the end of the second paragraph. This was added as headphones and earphones are now commonly used with computers.

(D) **AUDIO-FREQUENCY ELECTRIC AMPLIFIERS** was amended as follows :

59. The second paragraph was amended by the addition of “a laser optical disc reader” because this is also a common source of audio-frequency electric signals.
60. The last paragraph was amended by directing that “audio mixers and equalisers” are classified in heading 85.43 as these devices are not audio-frequency amplifiers, they are devices which manipulate signals or frequency responses by blending or modifying. Mixers are mentioned in the 1996 ENs as falling in heading 85.43.
61. (E) **ELECTRIC SOUND AMPLIFIER SETS** was subjected to only minor amendments simply to improve the way it reads.
62. The exclusions at the end of the EN were amended by the addition of “and cordless headphones” to item (c). As cordless microphones are excluded it follows that cordless headphones which operate in the same way should also be excluded.

Heading 85.19

63. Many of the apparatus mentioned in the terms of the heading are declining in trading prevalence, namely turntables, record players and to a lesser degree, cassette players. Conversely laser optical disc players and MP3 players are increasing in trading volume. Classification of MP3 players is a matter currently under consideration by the HS Committee. Given the rapid advances in sound recording and reproduction technology it is recommended that the terms of the heading be changed to “SOUND REPRODUCING APPARATUS, NOT INCORPORATING A SOUND RECORDING DEVICE”.
64. The third paragraph of the ENs was deleted because it is old technology and doesn't apply in particular to laser optical disc players, which are currently the most widely traded sound reproducer. It will also not apply to MP3 players.
65. Items (1), (2) and (3) were not changed because they remain in the terms of the heading.
66. New item (4) was added to expand on the explanation of the operation of laser optical disc players. The reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000. The former last paragraph before **PARTS AND ACCESSORIES** was deleted.
67. The second paragraph of item (4) was added to explain that small portable players presented with headphones or the like and coin-operated “jukeboxes” are included in the heading. These apparatus are quite commonly traded.
68. New item (7) was added as another example of a sound reproducing apparatus that would fall to the heading. These are devices that reproduce the sound, which has been recorded on the integrated circuit, and are classified in heading 85.19 by application of GIR 1. The reference source was an Australian classification ruling.

69. Exclusion (b) after **PARTS AND ACCESSORIES** was amended merely to broaden the exclusion from just telephone answering machines. These answering machines remain as an example. The Secretariat would draw the Sub-Committee's attention to the fact that in the present French text, this exclusion contains a reference to "sound reproducing", which is not found in the English text.

Heading 85.20

70. A new sentence relating to digital recording was added to the second paragraph of the EN. The reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000. Digital recording, regardless of the recording medium, involves either :

the conversion of an analogue signal which represents a sound-wave to a digital signal; or a digital signal which is produced directly by an instrument e.g. certain electronic keyboards. Once connected to an appropriate recording device or even a computer, the output from such instruments can be recorded directly as a digital signal. Sound is produced from the instrument because the digital signal output is converted to an analogue signal, which can then be heard by the human ear.

71. The digital signal is the data that is actually recorded on the recording medium, whether that signal was converted from an analogue signal or not. It is important to bear in mind that the digital signal, whether converted or not, is always intended to be converted to an analogue signal at some stage in order to produce a sound-wave, which was the reason why it was created in the first place.
72. Many recording apparatus, which record digital data from a computer, may not be considered to fall to the heading as sound recording apparatus. It is important to note that the digital data being recorded either represents a sound-wave or is intended to represent a sound-wave. Regardless of the compression format used or the number of networks through which the digital data has been transmitted, it is still data dedicated for eventual conversion to an analogue signal and thence as a sound-wave. It cannot, for example, be read as text or graphics, nor printed as such. It will only be intelligible to humans once converted to an analogue signal to reproduce the sound-wave represented by the recorded data, using apparatus designed for this function.
73. The third paragraph was amended by deleting “, and a mechanism which moves...”, because it is not seen as necessary to cover the increasing changes in sound recording technology.
74. A new opening paragraph has been added to part (A) **SOUND RECORDING APPARATUS** to define the characteristics common to such apparatus.
75. The order of items (1), (2), (3), etc., under part (A) was changed to align, firstly with the terms of the heading, and secondly to align with anticipated trading volume.
76. A new paragraph at the end of new item (1) was added to cover digital magnetic recording e.g., digital audio tape (DAT).

NR0360E1

77. New item (2) was added to cover laser optical disc recorders, regardless of the digital compression format e.g., MP3. The reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000.
78. New item (3) was added to cover solid-state sound recorders that record digitised sound electronically, e.g., on flash memory, once again regardless of the compression format (MP3).
79. **The Secretariat wonders whether the second sentence of the text should be retained, given the fact that flash memory is used for various applications, including digital cameras.**
80. New item (4) is the present item (1).
81. New item (6), presently item (4), was amended to broaden the re-recording apparatus of the heading to include digital re-recording and to expand the means of recording sound for which will be used in cinematography.
- (B) **COMBINED SOUND RECORDING AND REPRODUCING APPARATUS** has been amended as follows.
82. The first paragraph was amended to include the various recording media. A sentence was also added to explain the requirement that a digital sound recording apparatus must be able to convert the digital code to an analogue signal. Digital code cannot by itself reproduce a sound-wave.
83. The examples given at new items (1), (2), etc. are prefaced by a sentence which states that any of those examples may use any of the means of recording sound mentioned in the first paragraph. This was done to save on space yet sufficiently broaden the ENs to cover similar apparatus that use different recording means. The order of the items follows the subheading hierarchy.
84. Amendments made to present item (1), now new item (3) were added for clarification purposes.
85. New item (4) was added to cover other combined sound recorders and reproducers, e.g., MP3 players.
86. New item (5) was another example of a device that would fall to the heading. These are combined sound recording and reproducing apparatus, which are classified in heading 85.20 by GIR 1. These apparatus were found to be traded at www.tag.au.com.
87. New item (6) is present item (4).
88. A new exclusion (a) was added after **PARTS AND ACCESSORIES**. This directs that presses or injection moulding machinery for replicating discs are not sound recording apparatus.
89. **The Secretariat would draw the Review Sub-Committee's attention to the fact that during the Committee's examination on the classification of MP3 players (at its**

29th Session), 32 delegates supported the view that the expression “sound recording” as used in heading 85.20 should be interpreted in a broad sense, i.e., that it also covered the transcription of data files onto a flash memory. Two delegates were of the view that transcription could not be considered to be sound recording. The Committee also instructed the Secretariat to draft appropriate amendments to the Explanatory Notes, taking into account the proposal submitted by the EC, as set out in Annex III to Doc. NC0550E1, to be examined by the Committee at its next session.

Heading 85.21

90. The opening paragraph under part (A) has been deleted and replaced by five paragraphs that expand on the operations and functions of video recording and reproducing apparatus. With the exception of the new second paragraph the reference source was the McGraw-Hill Multimedia Encyclopaedia of Science & Technology, 2000. The MPEG 2 video player was found to be traded at www.alcorn.com.
91. The last paragraph before part (B) was amended by deleting the reference to “magnetic patterns on tape”, as the preceding paragraphs had sufficiently covered the different methods of recording.
92. A new sentence was added to part (B) (1) to cover apparatus that are capable of playing both DVDs and CD-ROMs.
93. **The Secretariat would suggest the following amendments to this text : “Subject to Note 3 to Section XVI, apparatus which are capable of reproducing video (both image and sound) from digital versatile disks and sound data from compact discs only are classified in this heading.” This presentation eliminates any possible confusion as to what medium the “sound data only” refers. The texts have been placed in square brackets for consideration by the Sub-Committee.**
94. “Video cameras” were added to the exclusions (at new exclusion (b)) as they are specifically mentioned in the text of heading 85.25.

Heading 85.22

95. The only additions recommended for this heading are those at new item (4), and exclusion (c). These are self-explanatory.

III. CONCLUSION

96. The Sub-Committee is invited to examine the draft amendments to the Explanatory Notes to headings 85.17 to 85.22, as set out in the Annexes to this document, while take into account the comments made by delegates at its last session, as reproduced in Annex III.

* * *

AMENDMENTS TO THE EXPLANATORY NOTES
TO BE MADE BY CORRIGENDUM

CHAPTER 85.

Page 1651. Heading 85.17.

1. First paragraph.

Delete and substitute :

“The term “electrical apparatus for line telephony or line telegraphy” means apparatus for the transmission of information between two points by variation of an electric current or of an optical wave flowing in a line communications medium. The line communications medium is usually a metallic or dielectric circuit (copper, optical fibres, combination cable, etc.), or a combination thereof, connecting the transmitting station to the receiving station, whether directly or indirectly. The information transmitted may be speech or other sounds (telephony) or codes which represent characters, graphics or images or other data (telegraphy). Transmission may be in the form of analogue or digital signals.”

2. Second paragraph.

Delete “systems” and substitute “systems or for digital line systems”.

Pages 1651 to 1652. Heading 85.17. Part (I).

Delete and substitute :

“(I) TELEPHONIC APPARATUS

This includes :

(A) Telephone sets.

Telephone sets for making and receiving calls from other apparatus in the network. They consist of :

- (1) The **transmitter**, a microphone which converts sound waves into a modulated current.
- (2) The **receiver** (headphone or earphone), which reconverts the modulated current into sound waves.

In most cases, the transmitter and receiver are incorporated in a single moulding known as a hand-set. In other cases the transmitter and receiver are a combined headphone and microphone, designed to be worn on the user’s head.

- (3) The **anti-sidetone circuit**, which prevents sound introduced in the transmitter from being reproduced in the receiver of the same hand-set.

- (4) The **ringer**, which gives warning of a call. These may be tone ringers which produce their sound electronically or mechanical ringers such as a bell or a buzzer. Some telephone sets incorporate a light or lamp which operates in conjunction with the ringer to provide a visual signal indicating an incoming call.
- (5) The **switching device** or "**switchhook**", which interrupts or permits the flow of current from the network. It is usually operated by the hand-set being removed from or returned to a cradle.
- (6) The **dialling selector**, which enables the caller to obtain a connection. The selector may be of the push-button or keypad (tone) type or of the drum or rotary (pulse) type.

When separately presented, microphones and receivers (whether or not combined as hand-sets), and loudspeakers are classified in **heading 85.18** while bells and buzzers are classified in **heading 85.31**.

Telephone sets may incorporate or have fitted : a memory for storing and recalling telephone numbers; a visual display for showing the number dialled, incoming caller's number, date and time, and duration of a call; an extra loudspeaker and microphone to enable communication without using the hand-set; devices for automatically answering calls, transmitting a recorded message, recording incoming messages and playing back the recorded message on command; devices for holding a connection on line while communicating with a person on another telephone. Telephone sets incorporating these devices may also have keys or push-buttons which enable their operation, including a switching key which enables the telephone to be operated without removing the hand-set from the cradle. Many of these devices utilise a microprocessor or digital integrated circuits for their operation.

Telephones may be mounted in several ways. Generally speaking, they are either designed for wall mounting or are of the portable type for placing on tables, etc. However, there are special types (e.g., the military field-telephone; "parlophones" for buildings, of which part may be of built-in design for fixing into walls; coin-operated or magnetic card operated telephones for public booths; sealed telephones for use in mines).

The heading covers all kinds of telephone sets including :

- (i) Cordless telephone sets which comprise a battery powered radio frequency transceiver hand-set which incorporates a dialling selector, switching key and a radio frequency transceiver base unit which is connected by line to the telephone network (other cordless telephone sets may not have a hand-set but comprise a combined headphone and microphone which is connected to a portable combined battery powered radio frequency transceiver, dialling selector and switching key). These sets are covered by the heading if they are presented with their base units).
- (ii) Telephone sets which comprise a combined dialling selector and switching key unit (which is connected by line to the telephone network) and a combined headphone and microphone, presented together.

Cellular telephones or mobile phones, including car telephones, are classified in **heading 85.25**.

(B) **Entry-phone systems.**

These systems usually consist of a telephone handset and keypad or a loudspeaker, a microphone and keys. These systems are usually mounted at the entrance of buildings housing a number of tenants. With these systems, visitors can call certain tenants, by pressing the appropriate keys and talk to them.

(C) **Videophones.**

Videophones for buildings, which are a combination consisting essentially of a telephone set for line telephony, a television camera and a television receiver (transmission by line).”

Page 1653. Heading 85.17. Part (II).

1. First paragraph.

Delete and substitute :

“This is essentially designed for converting characters, graphics, images or other data into appropriate electrical impulses, for transmitting those impulses, and at the receiving end, receiving these impulses and converting them either into conventional symbols or indications representing the characters, graphics, images or other data or into the characters, graphics, images or other data themselves.”

2. Item (A) (1).

Delete this item.

3. Item (A) (2).

- a) Delete “**transmitters**” and substitute “**transmitters** (teletypewriter transmitters)”.
- b) Delete “corresponding to a letter, figure or other sign” and substitute “corresponding to a character”.

Renumber present items (A) (2) and (A) (3) as (A) (1) and (A) (2), respectively.

4. Item (B).

Delete and substitute :

“(B) **Receivers**, e.g. **printer-type receivers** which print the message received directly on a tape or page in ordinary characters. This category covers, *inter alia*, teleprinter or teletypewriter receivers.

In some cases the receiver and the transmitter apparatus are combined into one receiver-transmitter. These may incorporate a microprocessor and a memory or other storage medium facility (for example an electronic buffer, paper tape punch and reader, or a magnetic tape or magnetic disc recorder/reader. In many cases combined receiver-transmitters may send and receive messages via a digital

network or incorporate a modem for transmission via a telephone network (e.g., teletypewriter transmitters/receivers for use by hearing impaired persons).

In some complex apparatus called "**retransmitters**" the signals are received on one line and retransmitted on another, without the aid of an operator."

5. Item (E). First sentence.

Delete "**Facsimile machines**" and substitute "**Facsimile (or fax) machines**".

6. Item (E). New second and third paragraphs.

Insert the following new second and third paragraphs :

"Many facsimile machines incorporate a charge-coupled device (CCD), analogue to digital converter, codec and modem. These machines scan the original document, convert the scanner output to digital code representing the image of the original document, compress the digital code and transmit the digitally coded representation over the telephone network via the modem. This process occurs in reverse at the receiving facsimile with the digitally coded representation being printed on paper using a laser and a photoreceptor.

Digital multifunction machines which are connected to the telephone line and to a computer or computer network and which perform the functions of printing, copying, scanning, and sending and receiving facsimile transmissions are classified in Chapter 84."

Page 1654. Heading 85.17.

1. New part (III).

Insert the following new part (III) :

"(III) TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS

(A) Automatic switchboards and exchanges.

These are of many types. The key feature of a switching system is the ability to provide, in response to coded signals, an automatic connection between users. Automatic switchboards and exchanges may operate by means of circuit switching, message switching or packet switching which utilise microprocessors to connect users by electronic means. Many automatic switchboards and exchanges incorporate analogue to digital converters, digital to analogue converters, data compression/ decompression devices (codecs), modems, multiplexors, computers or automatic data processing machines and other devices that permit the simultaneous transmission of both analogue and digital signals over the network, which enables the integrated transmission of speech, other sounds, characters, graphics, images or other data.

Some types of automatic switchboards and exchanges consist essentially of **selectors**, which select the line corresponding to the impulses received from the

calling sets and establish the connection. They are operated automatically, either directly by the impulses from the calling set or via auxiliary apparatus such as **directors**.

The different types of selectors (pre-selectors, intermediate selectors, final selectors) and, where used, the directors, are often assembled in series and in groups of the same type on chassis which are then incorporated into the exchange on metal racks. Particularly in smaller-sized installations they may, however, all be mounted on a single rack to form a self-contained automatic exchange.

Automatic switchboards and exchanges may also incorporate such facilities as abbreviated dialling, call waiting, call forwarding, multi-party calling, voice mail, etc. These facilities are accessed from the user's telephone set through the telephone network.

They are used for the public network or for private networks that utilise a private branch exchange (PBX) which is connected to the public network. Automatic switchboards and exchanges may also be equipped with consoles similar to telephone sets for when intervention or service by an operator is required.

(B) **Non-automatic switchboards and exchanges.**

These consist of a frame on which are mounted the various manual switching devices. They require an operator to manually connect each call received by the switchboard or exchange. They comprise "call" or "clear" indicators for signalling that a call is being made or is completed; operators' telephone sets (sometimes specially mounted); switching devices (mounted jacks or sockets and plugs connected to a cord); and key switches electrically connected to the plugs and cords to enable the operator to answer the caller, supervise the progress of the call and note its completion.

(C) **Least cost routers.**

These devices utilise microprocessors to automatically analyse and select the appropriate network (private or public) for communications transmission which will result in the least cost to the user."

Renumber present part (III) as (IV).

2. Present part (III). First paragraph. Last sentence.

Delete "(words, data, images, etc.)" and substitute "(characters, graphics, images, or other data, etc.)".

3. Present part (III). Second paragraph.

Delete and substitute :

“This includes :

- (A) Multiplexers of all categories and related line equipment for metal or optical-fibre cables. “Line equipment” includes transmitters and receivers or electro-optical converters.
- (B) Combined modulators-demodulators (modems).
- (C) Caller number display units, when presented separately from telephone sets.
- (D) Data compressors/decompressors (codecs) which also have the capability of transmission and reception of digital information.

Devices which compress or decompress data only and do not have transmission or reception capabilities are classified in heading 85.43.

- (E) Pulse to tone converters which convert pulse dialled signals to tone signals.
- (F) Communication devices in which a telephone set, display screen, keyboard (of the QWERTY type) and a modem are incorporated in a single housing, which allow the user to communicate by voice or email and to access the internet (commonly known as “internet telephones”).”

4. Exclusion paragraph. New exclusion (h).

Insert the following new exclusion (h) :

“(h) Data encryption devices which do not transmit the encrypted data but relay it to a modem (heading 85.43).”

Reletter present exclusions (h) to (l) as (ij) to (m), respectively.

Page 1655. Heading 85.18. Part (A).

1. Item (2). New last sentence.

Insert the following new last sentence :

“This type of element is often used in the “contact” microphone that is used in the pick-up of acoustic musical instruments such as guitars, pianos, brass and string orchestral instruments etc.”

2. Item (3).

Delete “**microphones**” and substitute “**microphones** (also known as dynamic microphones)”.

3. Item (4).

Delete and substitute :

“(4) **Capacitance or electrostatic (condenser) microphones**, containing two plates (or electrodes), one fixed (the backplate) and one able to vibrate (the diaphragm), with an air gap between the two. The sound waves produce differences in capacity between the two plates.”

4. Third paragraph. First two sentences.

Delete and substitute :

“Generally the electric current output from microphones is in the form of an analogue signal, however some microphones incorporate an analogue to digital converter where the output is in the form of a digital signal. Microphones are sometimes rendered more sensitive by the addition of amplifiers (usually referred to as pre-amplifiers). Capacitors are sometimes fitted for tone correction. Some microphones require an electrical power supply for their operation. This power supply may be supplied from a mixing console or the sound recording apparatus or it may be in the form of a separate power pack. Power packs presented separately are not classified in this heading (**generally heading 85.04**).”

Page 1656. Heading 85.18.

1. Part (B). First paragraph. First sentence.

Delete “oscillations into mechanical vibrations” and substitute “oscillations from an amplifier into mechanical vibrations”.

2. Part (B). First paragraph. Item (3).

Delete and substitute :

“(3) **Electrostatic loudspeakers** (also known as **condenser-type loudspeakers**). These depend on the electrostatic reactions between two plates (or electrodes), one plate serving as a diaphragm.”

3. Part (B). Second paragraph. New second and third sentences.

Insert the following new second and third sentences :

“Generally the electrical input signal received by loudspeakers is in analogue form, however in some cases the input signal is in digital format. Such loudspeakers incorporate digital to analogue converters and amplifiers from which the mechanical vibrations are communicated to the air.”

4. Part (B). New fourth paragraph.

Insert the following new fourth paragraph :

“The heading includes loudspeakers designed for connection to an automatic data processing machine (computer), when presented separately.”

5. Part (C). Second paragraph.

Delete “receivers, or sound reproducing apparatus” and substitute “receivers, sound reproducing apparatus or automatic data processing machines (computers)”.

Page 1657. Heading 85.18.

1. Part (D). Second paragraph. First sentence.

Delete “a microphone, a pick-up cartridge” and substitute “a microphone, a laser optical disc reader, a pick-up cartridge”.

2. Part (D). Last paragraph. New last sentence.

Insert the following new last sentence :

“Audio mixers and equalisers are also classified in **heading 85.43.**”

3. Part (E). First sentence.

Delete “amplifier units” and substitute “amplifier sets”.

4. Part (E). Last sentence.

Delete “It is also used” and substitute “Similar systems are also used”.

5. Exclusion paragraph. Exclusion (c).

Delete “microphones, which” and substitute “microphones and cordless headphones, which”.

Page 1658. Heading 85.19.

1. Third paragraph.

Delete this paragraph.

2. Fourth paragraph. New item (4).

Insert the following new item (4) :

“(4) **Sound reproducing apparatus with a laser optical reading system (compact disc and minidisc audio players).** Sound is reproduced by using a laser beam and photodetector to read digitally-encoded recordings in the form of microscopic pits on the surface of the rotating disc, which are then converted to electric signals. These

apparatus may be fitted or incorporate a device for automatically changing discs to enable a series of discs to be played.

Apparatus mentioned in paragraphs (3) and (4) of this Explanatory Note include small portable players which are presented with earphones or headphones and players for use in the home or office. Coin-operated "jukeboxes" for playing discs are also included."

Renumber present items (4) and (5) as (5) and (6), respectively.

Page 1659. Heading 85.19.

1. First paragraph. New item (7).

Insert the following new item (7) :

"(7) **Sound reproducing apparatus in which the recording is stored on an integrated circuit** within the apparatus which also usually comprise a small loudspeaker, a volume control and are battery powered. They are not capable of recording sound and are limited to playing only the recording on the integrated circuit (such as a greeting or religious chant)."

2. First paragraph after the first three asterisks.

Delete this paragraph.

3. Exclusion paragraph. Exclusion (b).

Delete and substitute :

"(b) Sound reproducing devices equipped with a sound recording apparatus e.g., telephone answering machines (**heading 85.20**)."

Page 1660. Heading 85.20.

1. Second paragraph. New last sentence.

Insert the following new last sentence :

"It also means apparatus in which the audio-frequency vibration is represented by digital code which is used to modify the recording medium."

2. Third paragraph.

Delete and substitute :

"Broadly speaking, **a sound recording apparatus**, comprises a device which modifies the recording medium."

Pages 1660 to 1661. Heading 85.20. Part (A).

1. New introductory paragraph.

Insert the following new introductory paragraph :

“The distinguishing characteristic of these apparatus is that they are capable of only recording the sound, they do not incorporate any devices for reproducing recorded sound.”

2. Present item (2). New last paragraph.

Insert the following new last paragraph :

“In other magnetic type recording apparatus the amplified currents of variable intensity (analogue signal) received by the microphone are converted into a stream of digital code (bits) by an analogue-to-digital converter. This digitised program is then magnetically recorded on the recording medium, usually magnetised tapes or discs.”

3. New items (2) and (3).

Insert the following new items (2) and (3) :

“(2) The **optical type** in which the digital code that has been converted from the amplified currents of variable intensity (analogue signal) is represented by microscopic indentations which are burnt onto the surface of the recording medium by a laser. The recording medium is generally a disc made of glass, metal or plastic with a light-sensitive lacquer coating (a photoresist).

(3) The **electronic type** in which the converted digital code is recorded as electrical charges on a semiconductor (solid-state) memory. This is usually done by connecting the sound recording apparatus which comprises a microprocessor and semiconductor memory to a computer and transferring the digital code from the computer.”

4. Item (4).

Delete and substitute :

“(4) **Re-recording apparatus, for cinematography**, used, for example, for photoelectric or digital re-recording of sound tracks recorded by other means, e.g., magnetically, optically, or electronically.”

Renumber present items (1), (2), (3) and (4) as (4), (1), (5) and (6), respectively, and move the text of these items accordingly.

Page 1661. Heading 85.20.

1. Part (B). First paragraph.

Delete and substitute :

“These apparatus incorporate devices for recording and reproducing sound. Generally sound is recorded by means of magnetic media, optical media or integrated circuits, such as microprocessors and semiconductor media. Devices which record sound as digital code generally are not capable of reproducing sound unless they incorporate a means for converting the recording from digital code to an analogue signal.”

2. Part (B). Second paragraph. Introductory phrase.

Delete and substitute :

“Examples of these type of apparatus which **may use any of the above mentioned means of recording sound** include, *inter alia* :”

3. Part (B). Second paragraph. Item (1).

Delete and substitute :

“(1) **Tape recorders or cassette recorders**, whether portable or not, equipped with, or designed to be attached to, acoustic devices (loudspeakers, earphones, headphones) and an electric amplifier.”

4. Part (B). Second paragraph. New items (4) and (5).

Insert the following new items (4) and (5) :

“(4) **Other sound recorders** equipped with, or designed to be attached to, acoustic devices and an electric amplifier (e.g., MP3 players), whether portable or not.

(5) **Voice recording apparatus** which incorporate or are designed to be attached to acoustic devices. These apparatus record speech spoken directly into the apparatus via a microphone, or by other means, e.g., telephone (e.g. voice logging machines, portable interview recorders/reproducers). They may also incorporate automatic date and time recording devices and devices that allow transfer of the recorded sound to a computer, or in some cases the media on which the sound is recorded can be removed for transfer to a computer.”

Renumber present items (1), (2), (3) and (4) as (3), (1), (2) and (6), respectively, and move the text of these items accordingly.

5. Exclusion paragraph. New exclusion (a).

Insert the following new exclusion (a) :

“(a) Presses or injection moulding machinery for replicating recorded optical discs of plastic (**heading 84.77**).”

Reletter present exclusions (a) to (d) as (b) to (e), respectively.

Page 1662. Heading 85.21.

1. Part (A).

Delete and substitute :

**“(A) RECORDING AND COMBINED RECORDING
AND REPRODUCING APPARATUS**

These are apparatus which, when connected to a television camera or a television receiver, record on media electric impulses (analogue signals) or analogue signals converted into digital code (or a combination of these) which correspond to the images and sound captured by a television camera or received by a television receiver. Generally the images and sound are recorded on the same media. The method of recording can be by magnetic or optical means and the recording media is usually tapes or discs.

The heading also includes apparatus which record, generally on a magnetic disc, digital code representing video images and sound, by transferring the digital code from a computer (e.g., MPEG 2 video players).

In magnetic recording on tape the images and sound are recorded on different tracks on the tape whereas in magnetic recording on disc the images and sound are recorded as magnetic patterns or spots in spiral tracks on the surface of the disc.

In optical recording on disc the images and sound are recorded on a glass, metal or plastic disc with a light-sensitive lacquer coating (a photoresist) by a laser which burns the surface of the disc with microscopic indentations. These indentations may represent analogue signals (often representing the images) and digital code (representing the sound). The microscopic indentations representing analogue signals are traces of continuously variable length, whereas digital code is represented as indentations of fractions of fixed nominal length.

Video recording apparatus which receive signals from a television receiver also incorporate a tuner which enables selection of the desired signal (or channel) from the frequency band of signals transmitted by the television transmitting station.”

When used for reproduction, the apparatus convert the recording into video signals. These signals are passed on either to a transmitting station or to a television receiver.”

2. Part (B). Item (1).

a) Delete “videodiscs” and substitute “discs”.

b) Insert the following new last sentence :

“Subject to Note 3 to Section XVI apparatus which are capable of reproducing [image and sound data] [video (both image and sound) from digital versatile disks] and sound data [from compact discs] only are classified in this heading.”

Page 1663.

1. Heading 85.21. Exclusion paragraph. New exclusion (b).

Insert the following new exclusion (b) :

“(b) Video cameras (**heading 85.25**).”

Reletter present exclusion (b) as (c).

2. Heading 85.22. Second paragraph. New item (4).

Insert the following new item (4) :

“(4) **Cassette shaped adapters** which enable sound reproduction from a portable optical disc player through a magnetic tape player.”

Renumber present items (4) to (12) as (5) to (13), respectively.

Page 1664. Heading 85.22. Exclusion paragraph. New exclusion (c).

Insert the following new exclusion (c) :

“(c) Recording media of **heading 85.23** or **85.24**.”

Reletter present exclusion (c) as (d).

* * *

AMENDMENTS TO THE EXPLANATORY NOTES
TO BE MADE BY CORRIGENDUM

CHAPTER 85.

Page 1651. Heading 85.17. First two paragraphs.

The term “electrical apparatus for line telephony or line telegraphy” means apparatus for the transmission of information between two points by variation of an electric current or of an optical wave flowing in a line communications medium. The line communications medium is usually a metallic or dielectric circuit (copper, optical fibres, combination cable, etc.), or a combination thereof, connecting the transmitting station to the receiving station, whether directly or indirectly. The information transmitted may be speech or other sounds (telephony) or codes which represent characters, graphics or images or other data (telegraphy). Transmission may be in the form of analogue or digital signals. ~~The term “electrical apparatus for line telephony or line telegraphy” means apparatus for the transmission between two points of speech or other sounds (or of symbols representing written messages, images or other data), by variation of an electric current or of an optical wave flowing in a metallic or dielectric (copper, optical fibres, combination cable, etc.) circuit connecting the transmitting station to the receiving station.~~

The heading covers all such electrical apparatus designed for this purpose, including the special apparatus used for carrier-current line systems or for digital line systems.

Pages 1651 to 1654. Heading 85.17. Parts (I) to (III).

(I) TELEPHONIC APPARATUS

This includes :

(A) Telephone sets.

Telephone sets for making and receiving calls from other apparatus in the network. They consist of :

- (1) The **transmitter**, a microphone which converts sound waves into a modulated current.
- (2) The **receiver** (headphone or earphone), which reconverts the modulated current into sound waves.

In most cases, the transmitter and receiver are incorporated in a single moulding known as a hand-set. In other cases the transmitter and receiver are a combined headphone and microphone, designed to be worn on the user’s head.

- (3) The **anti-sidetone circuit**, which prevents sound introduced in the transmitter from being reproduced in the receiver of the same hand-set.
- (4) ~~3~~ The **ringer bell or buzzer**, which gives warning of a call. These may be tone ringers which produce their sound electronically or mechanical ringers such as a

bell or a buzzer. Some telephone sets incorporate a light or lamp which operates in conjunction with the ringer to provide a visual signal indicating an incoming call.

- (54) The **switching device** or "**switchhook**", which interrupts or permits the flow of current from the network. It is usually operated by the hand-set being removed from or returned to a cradle.
- (65) The **dialling selector** (e.g., of drum or push button type), which enables the caller to obtain his a connection. The selector may be of the push-button or keypad (tone) type or of the drum or rotary (pulse) type.

When separately presented, microphones and receivers (whether or not combined as hand-sets), and loudspeakers are classified in **heading 85.18** while bells and buzzers are classified in **heading 85.31**.

~~Other devices occasionally fitted to subscribers' telephones include devices for memorising a telephone number; devices for holding a connection on line while communicating with a person on another extension and those for listening in to or breaking into other lines.~~

Telephone sets may incorporate or have fitted : a memory for storing and recalling telephone numbers; a visual display for showing the number dialled, incoming caller's number, date and time, and duration of a call; an extra loudspeaker and microphone to enable communication without using the hand-set; devices for automatically answering calls, transmitting a recorded message, recording incoming messages and playing back the recorded message on command; devices for holding a connection on line while communicating with a person on another telephone. Telephone sets incorporating these devices may also have keys or push-buttons which enable their operation, including a switching key which enables the telephone to be operated without removing the hand-set from the cradle. Many of these devices utilise a microprocessor or digital integrated circuits for their operation.

Telephones may be mounted in several ways. Generally speaking, they are either designed for wall mounting or are of the portable type for placing on tables, etc. However, there are special types (e.g., the military field-telephone; "parlophones" for buildings, of which part may be of built-in design for fixing into walls; ~~videophones for buildings, which are a combination consisting essentially of a telephone set for line telephony, a television camera and a television receiver (transmission line); coin-operated or magnetic card operated~~ telephones for public booths; sealed telephones for use in mines).

~~The heading covers all kinds of telephone sets including those in which a telephone set (incorporating a selector and a hand-set) and a device for the transmission of recorded messages and, sometimes, the recording of incoming calls constitute an integrated unit.~~

The heading covers all kinds of telephone sets including :

- (i) Cordless telephone sets which comprise a battery powered radio frequency transceiver hand-set which incorporates a dialling selector, switching key and a radio frequency transceiver base unit which is connected by line to the telephone network (other cordless telephone sets may not have a hand-set but comprise a combined headphone and microphone which is connected to a portable combined

battery powered radio frequency transceiver, dialling selector and switching key).
These sets are covered by the heading if they are presented with their base units).

- (ii) Telephone sets which comprise a combined dialling selector and switching key unit (which is connected by line to the telephone network) and a combined headphone and microphone, presented together.

Cellular telephones or mobile phones, including car telephones, are classified in **heading 85.25**.

(B) ~~Non-automatic switchboards and exchanges.~~

~~Ranging from small switching panels to large exchanges, these consist of a frame on which are mounted the various manual switching devices, etc. Their principal components are :~~

- ~~(1) **“Call” or “clear” indicators** (flaps, bells, lamps, etc.) for signalling to the operator that a call is being made or that a connection is no longer required.~~
- ~~(2) One or more **operators' telephone sets**. These are similar in structure to subscribers' sets, but often specially mounted (e.g., microphone on chest support and receiver in the form of a headphone set).~~
- ~~(3) **Switching devices**, usually consisting of jacks or sockets mounted in a panel, and plugs connected to a cord.~~
- ~~(4) **Keyboards**, a series of key switches electrically connected to the plugs and cords, and used to enable the operator to answer the caller, supervise the progress of the call and note its completion.~~

~~Switchboards and exchanges may be designed for wall mounting or for standing on the ground. In the latter case they may or may not be movable.~~

~~They are used for private lines or for the public network.~~

(B) ~~Entry-phone systems.~~

~~These systems usually consist of a telephone handset and keypad or a loudspeaker, a microphone and keys. These systems are usually mounted at the entrance of buildings housing a number of tenants. With these systems, visitors can call certain tenants, by pressing the appropriate keys and talk to them.~~

(C) Videophones.

Videophones for buildings, which are a combination consisting essentially of a telephone set for line telephony, a television camera and a television receiver (transmission by line).

(II) TELEGRAPHIC APPARATUS

This is essentially designed for converting texts or characters, graphics, images or other data into appropriate electrical impulses, for transmitting those impulses, and at the receiving

end, receiving these impulses and converting them either into conventional symbols or indications representing the text, characters, graphics, images or other data or into the text or characters, graphics, images or other data ~~itself themselves~~.

The most important types are as follows :

(A) **Apparatus for transmitting messages**, e.g. :

~~(1) **Morse or Morse-type keys** used for transmitting Morse code, etc. These are make-break switches in the form of a hand-operated lever, the movements of which result in the production of electric impulses corresponding to the message to be transmitted.~~

(12) **Dial or keyboard transmitters** (teletypewriter transmitters). In this apparatus combinations of impulses representing the message are transmitted by striking a key set in a dial or a keyboard, each key corresponding to a letter, figure or other sign character. In some apparatus the keyboard is similar to a typewriter keyboard. This category includes Breguet, Hughes, Baudot, etc., transmitters, and non-automatic teleprinter or teletypewriter transmitters.

This group also includes devices which combine a visual display unit, a dialling selector used in obtaining a connection and a keyboard.

~~(23)~~ **Automatic transmitters** (e.g., Wheatstone high-speed transmitters and automatic teleprinter or teletypewriter transmitters). This apparatus is operated automatically by paper tape, previously perforated to carry the text for transmission.

(B) **Receivers**, e.g. ~~(3)~~ **Pprinter-type receivers** which print the message received directly on a tape or page in ordinary characters. This category covers, *inter alia*, teleprinter or teletypewriter receivers.

In some cases the receiver and the transmitter apparatus are combined into one receiver-transmitter. These may incorporate a microprocessor and a memory or other storage medium facility (for example an electronic buffer, paper tape punch and reader, or a magnetic tape or magnetic disc recorder/reader. In many cases combined receiver-transmitters may send and receive messages via a digital network or incorporate a modem for transmission via a telephone network (e.g., teletypewriter transmitters/receivers for use by hearing impaired persons).

In some complex apparatus called "**retransmitters**" the signals are received on one line and retransmitted on another, without the aid of an operator.

~~(1) **Morse-type recorders** which translate electric impulses into conventional signs (combinations of dots and dashes), printed on a paper tape.~~

~~(2) **Sounders** permit aural reception of code signals by the sounds made when a heavy electro-magnetic armature moves between and strikes two sounding plates.~~

(C) **Picture telegraphic apparatus.**

In these transmitters, the electric impulses are produced by the operation of a special device which scans the text or the picture to be transmitted. In the receivers, a photographic surface is exposed to a beam of light controlled by the electric impulses emitted by the transmitter.

The ancillary photographic equipment used with this apparatus (e.g., developing equipment) falls in **Chapter 90**.

(D) **Special "telecomposing" apparatus**, for transmitting or receiving a facsimile of a perforated type-setting tape.

(E) **Facsimile (or fax) machines** for the telecommunication of text or graphics over telephone lines. These machines, which are connected to a telephone line, consist essentially of a transmitter section incorporating a device for the dot-by-dot scanning of the original document and a receiver section incorporating a recording device (sometimes heat-sensitive). This equipment is suitable both for the transmission and automatic reception of copies.

Many facsimile machines incorporate a charge-coupled device (CCD), analogue to digital converter, codec and modem. These machines scan the original document, convert the scanner output to digital code representing the image of the original document, compress the digital code and transmit the digitally coded representation over the telephone network via the modem. This process occurs in reverse at the receiving facsimile with the digitally coded representation being printed on paper using a laser and a photoreceptor.

Digital multifunction machines which are connected to the telephone line and to a computer or computer network and which perform the functions of printing, copying, scanning, and sending and receiving facsimile transmissions are classified in Chapter 84.

(III) TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS

(A)(G) Automatic switchboards and exchanges.

These are of many types. The key feature of a switching system is the ability to provide, in response to coded signals, an automatic connection between users. Automatic switchboards and exchanges may operate by means of circuit switching, message switching or packet switching which utilise microprocessors to connect users by electronic means. Many automatic switchboards and exchanges incorporate analogue to digital converters, digital to analogue converters, data compression/decompression devices (codecs), modems, multiplexors, computers or automatic data processing machines and other devices that permit the simultaneous transmission of both analogue and digital signals over the network, which enables the integrated transmission of speech, other sounds, characters, graphics, images or other data.

Some types of automatic switchboards and exchanges consist essentially of **selectors**, which select the line corresponding to the impulses received from the calling sets and establish the connection. They are operated automatically, either directly by the impulses from the calling set or via auxiliary apparatus such as **directors**.

The different types of selectors (pre-selectors, intermediate selectors, final selectors) and, where used, the directors, are often assembled in series and in groups of the same type on chassis which are then incorporated into the exchange on metal racks. Particularly in smaller-sized installations they may, however, all be mounted on a single rack to form a self-contained automatic exchange.

Automatic switchboards and exchanges may also incorporate such facilities as abbreviated dialling, call waiting, call forwarding, multi-party calling, voice mail, etc. These facilities are accessed from the user's telephone set through the telephone network.

They are used for the public network or for private networks that utilise a private branch exchange (PBX) which is connected to the public network. Automatic switchboards and exchanges may also be equipped with consoles similar to telephone sets for when intervention or service by an operator is required.

(B) Non-automatic switchboards and exchanges.

These consist of a frame on which are mounted the various manual switching devices. They require an operator to manually connect each call received by the switchboard or exchange. They comprise "call" or "clear" indicators for signalling that a call is being made or is completed; operators' telephone sets (sometimes specially mounted); switching devices (mounted jacks or sockets and plugs connected to a cord); and key switches electrically connected to the plugs and cords to enable the operator to answer the caller, supervise the progress of the call and note its completion.

(C) Least cost routers.

These devices utilise microprocessors to automatically analyse and select the appropriate network (private or public) for communications transmission which will result in the least cost to the user.

**(IV~~II~~) APPARATUS FOR CARRIER-CURRENT LINE SYSTEMS
OR FOR DIGITAL LINE SYSTEMS**

These systems are based on the modulation of an electrical carrier-current or of a light beam by analogue or digital signals. Use is made of the carrier-current modulation technique and pulse code modulation (PCM) or some other digital system. These systems are used for the transmission of all kinds of information (~~words, data~~ characters, graphics images, or other data, etc.).

~~These systems include all categories of multiplexers and related line equipment for metal or optical fibre cables. "Line equipment" includes transmitters and receivers or electro-optical converters. Combined modulators-demodulators (modems) are also classified here.~~

This includes :

- (A) Multiplexers of all categories and related line equipment for metal or optical-fibre cables. "Line equipment" includes transmitters and receivers or electro-optical converters.
- (B) Combined modulators-demodulators (modems).
- (C) Caller number display units, when presented separately from telephone sets.
- (D) Data compressors/decompressors (codecs) which also have the capability of transmission and reception of digital information.

Devices which compress or decompress data only and do not have transmission or reception capabilities are classified in heading 85.43.

- (E) Pulse to tone converters which convert pulse dialled signals to tone signals.
- (F) Communication devices in which a telephone set, display screen, keyboard (of the QWERTY type) and a modem are incorporated in a single housing, which allow the user to communicate by voice or email and to access the internet (commonly known as "internet telephones").

Similar apparatus used for radio transmission systems is **excluded** (heading **85.25** or **85.27**).

Page 1654. Heading 85.17. Exclusion paragraph. New exclusion (h).

(h) Data encryption devices which do not transmit the encrypted data but relay it to a modem (heading 85.43).

Page 1655. Heading 85.18. Part (A).

1. Items (2) to (4).

- (2) **Piezo-electric microphones**, in which the pressure of the sound waves, transmitted by means of a diaphragm, sets up strains in a specially cut piece of crystal (e.g., quartz or rock crystal), thus causing the production of electric charges on the crystal. This type of element is often used in the "contact" microphone that is used in the pick-up of acoustic musical instruments such as guitars, pianos, brass and string orchestral instruments etc.
- (3) **Moving coil or ribbon microphones** (also known as dynamic microphones), in which the sound vibrations are brought to bear on a coil or an aluminium ribbon situated in a magnetic field, thus producing electric impulses by induction.
- (4) **Capacitance or electrostatic (condenser) microphones**, containing two plates (or electrodes), one fixed (the backplate) and one able to vibrate (the diaphragm), with an air gap between the two. ~~the~~ The sound waves producing produce differences in capacity between the two plates.

2. Third paragraph.

Generally the electric current output from microphones is in the form of an analogue signal, however some microphones incorporate an analogue to digital converter where the output is in the form of a digital signal. Microphones are sometimes rendered more sensitive by the addition of amplifiers (usually referred to as pre-amplifiers). Capacitors are sometimes fitted for tone correction. Some microphones require an electrical power supply for their operation. This power supply may be supplied from a mixing console or the sound recording apparatus or it may be in the form of a separate power pack. Power packs presented separately are not classified in this heading (**generally heading 85.04**). Microphones are also sometimes fitted with devices for concentrating the sound waves, and may have, as in the case of public address microphones, special stands for placing on a table, a desk, etc., or on the ground, or from which the microphones are suspended. Such stands or devices fall in this heading, even if presented separately, provided they are of a kind specially designed for use with or for fitting to microphones.

Page 1656. Heading 85.18.

1. Part (B). First paragraph. First sentence.

The function of loudspeakers is the converse of that of microphones : they reproduce sound by converting electrical variations or oscillations from an amplifier into mechanical vibrations which are communicated to the air.

2. Part (B). First paragraph. Item (3).

(3) **Electrostatic loudspeakers** (also known as **condenser-type loudspeakers**). These depend on the electrostatic reactions between two plates (or electrodes), one plate serving as a diaphragm.

3. Part (B). Second paragraph.

Matching transformers and amplifiers are sometimes mounted together with loudspeakers. Generally the electrical input signal received by loudspeakers is in analogue form, however in some cases the input signal is in digital format. Such loudspeakers incorporate digital to analogue converters and amplifiers from which the mechanical vibrations are communicated to the air.

4. Part (B). New fourth paragraph.

The heading includes loudspeakers designed for connection to an automatic data processing machine (computer), when presented separately.

5. Part (C). Second paragraph.

The heading covers headphones and earphones, whether or not combined with a microphone, for telephony or telegraphy; headsets consisting of a special throat microphone and permanently-fixed earphones (used, for example, in aviation); line telephone handsets which are combined microphone/speaker sets for telephony and which are generally used by telephone operators; headphones and earphones for

plugging into radio or television receivers, ~~or~~ sound reproducing apparatus or automatic data processing machines (computers).

Page 1657. Heading 85.18.

1. Part (D). Second paragraph. First sentence.

The input signals to audio-frequency amplifiers may be derived from a microphone, a laser optical disc reader, a pick-up cartridge, a magnetic tape head, a radio feeder unit, a film sound track head or some other source of audio-frequency electric signals.

2. Part (D). Exclusion paragraph.

High or intermediate frequency amplifiers are classified in **heading 85.43** as electrical appliances having an individual function. Audio mixers and equalisers are also classified in heading 85.43.

3. Part (E).

(E) ELECTRIC SOUND AMPLIFIER SETS

This heading also covers amplifier ~~units~~ sets consisting of microphones, audio-frequency amplifiers and loudspeakers. This type of equipment is extensively used for public entertainment, public address systems, advertising vehicles, police vehicles or with certain musical instruments, etc. ~~It is~~ Similar systems are also used on large lorries (particularly those with trailers) for enabling the driver to hear irregular noises or sound signals from behind, which otherwise he could not hear above the sound of the engine.

4. Exclusion paragraph. Exclusion (c).

(c) Cordless microphones and cordless headphones, which incorporate a transmitter (**heading 85.25**).

Page 1658. Heading 85.19. Third paragraph.

~~Broadly speaking, the main constituent parts of a sound reproducer are a sound head, a mechanism for displacing the sound head in relation to the recording (or vice versa) and sometimes a system for producing sound waves.~~

Pages 1658 to 1659. Heading 85.19. New items (4) and (7).

(4) Sound reproducing apparatus with a laser optical reading system (compact disc and minidisc audio players). Sound is reproduced by using a laser beam and photodetector to read digitally-encoded recordings in the form of microscopic pits on the surface of the rotating disc, which are then converted to electric signals. These apparatus may be fitted or incorporate a device for automatically changing discs to enable a series of discs to be played.

Apparatus mentioned in paragraphs (3) and (4) of this Explanatory Note include small portable players which are presented with earphones or headphones and players for use in the home or office. Coin-operated "jukeboxes" for playing discs are also included.

(7) Sound reproducing apparatus in which the recording is stored on an integrated circuit within the apparatus which also usually comprise a small loudspeaker, a volume

control and are battery powered. They are not capable of recording sound and are limited to playing only the recording on the integrated circuit (such as a greeting or religious chant).

Page 1659. Heading 85.19.

1. First paragraph after the first three asterisks.

~~This heading also includes sound reproducing apparatus with a laser optical reading system (compact disc players).~~

2. Exclusion paragraph. Exclusion (b).

~~(b) Sound reproducing devices Telephone answering machines equipped with a sound recording apparatus e.g., telephone answering machines (heading 85.20).~~

Page 1660. Heading 85.20. Second and third paragraphs.

The term “ **sound recording apparatus** ” means apparatus which, on receiving a suitable audio-frequency vibration generated by a sound-wave, so modifies a recording medium as to enable it to be used subsequently to reproduce the original sound-wave. It also means apparatus in which the audio-frequency vibration is represented by digital code which is used to modify the recording medium.

Broadly speaking, a **sound recording apparatus**, comprises a device which modifies the recording medium, ~~and a mechanism which moves this device in relation to the recording medium.~~

Pages 1660 to 1661. Heading 85.20. Part (A).

(A) **SOUND RECORDING APPARATUS**

The distinguishing characteristic of these apparatus is that they are capable of only recording the sound, they do not incorporate any devices for reproducing recorded sound.

The main types of sound recording apparatus classified here are :

- (12) **Magnetic type.** Sound-waves (speech, music, etc.) received by a microphone generate currents of variable intensity in the microphone circuit; these currents, suitably amplified, produce a variable audio-frequency magnetic field in the recording device (a recording-head which is essentially an electro-magnet). This magnetic field, in turn, irregularly magnetises the recording medium, which may either be a **magnetic or magnetised wire or metal tape**, or a **sheet, tape or disc made of plastics or paper with a magnetic coating** generally consisting of a dispersion of magnetic iron oxide in a medium.

In these apparatus the recording-head performs the same functions as the stylus in the groove type recorders.

In other magnetic type recording apparatus the amplified currents of variable intensity (analogue signal) received by the microphone are converted into a stream of digital code

(bits) by an analogue-to-digital converter. This digitised program is then magnetically recorded on the recording medium, usually magnetised tapes or discs.

- (2) The **optical type** in which the digital code that has been converted from the amplified currents of variable intensity (analogue signal) is represented by microscopic indentations which are burnt onto the surface of the recording medium by a laser. The recording medium is generally a disc made of glass, metal or plastic with a light-sensitive lacquer coating (a photoresist).
- (3) The **electronic type** in which the converted digital code is recorded as electrical charges on a semiconductor (solid-state) memory. This is usually done by connecting the sound recording apparatus which comprises a microprocessor and semiconductor memory to a computer and transferring the digital code from the computer.
- (41) **The groove type** in which a stylus cuts a groove in a recording medium (disc, cylinder, film) mounted on a support; the groove varies in form according to the vibrations recorded.
- (53) **The cinematographic sound recording apparatus** of this heading are those which record sound by **photoelectrical methods**. Sound may be photoelectrically recorded on film as a strip, either (a) of variable area or (b) of variable density. Both types are obtained by using a microphone, etc., which converts the sound impulses into corresponding variable electrical currents.

In the recording of sound by the variable area process, these currents are passed through a galvanometer which has a mirror attached to the moving element. A reflected beam directed on to the mirror fluctuates according to the sound vibrations. These fluctuations are recorded on the film.

In the variable density type of recording, the microphone currents modulate a gas or vapour discharge tube and the variations in intensity are recorded on the film. The sound track is represented on the film by a track of constant width but varying density. A variable density sound track may also be produced by using a slit, the size of which fluctuates according to the sound impulses.

Cinematographic sound recording apparatus comprises, in addition to the sound recording head, a magazine for holding the film, a motor driving mechanism for synchronising the speed of the film with that of the cinematographic camera working with it, and a film transport mechanism.

- (64) **Re-recording apparatus, for cinematography**, used, for example, for photoelectric or digital re-recording of magnetically recorded sound tracks recorded by other means, e.g., magnetically, optically, or electronically.

Page 1661. Heading 85.20.

1. Part (B).

(B) COMBINED SOUND RECORDING AND REPRODUCING APPARATUS

These apparatus incorporate devices for recording and reproducing sound. Generally

Sound is recorded by means of, in particular, magnetic media, optical media or integrated circuits, such as microprocessors and semiconductor media. Devices which record sound as digital code generally are not capable of reproducing sound unless they incorporate a means for converting the recording from digital code to an analogue signal.

This group Examples of these type of apparatus which may use any of the above mentioned means of recording sound includes, *inter alia* :

(12) **Dictating machines.** Most dictating machines are combined sound recording and reproducing apparatus. Dictating machines suitable only for recording sound are very rare. Even when, for convenience, recorders and reproducers are constructed as separate units, the recorder usually incorporates a sound reproducing device so that the person dictating can check his text. In such cases, however, the separate reproducer has no recording device and is classified in **heading 85.19**.

(23) **Telephone answering machines** designed to operate in conjunction with a telephone set (but not forming an integral part of the set) to transmit a message previously recorded by the telephone subscriber and to record messages left by the caller (by means of an integral sound recording device).

(34) **Tape recorders or cassette recorders, whether portable or not,** equipped with, or designed to be attached to, acoustic devices (loudspeakers, earphones, headphones) and an electric amplifier.

(4) **Other sound recorders** equipped with, or designed to be attached to, acoustic devices and an electric amplifier (e.g., MP3 players), whether portable or not.

(5) **Voice recording apparatus** which incorporate or are designed to be attached to acoustic devices. These apparatus record speech spoken directly into the apparatus via a microphone, or by other means, e.g., telephone (e.g. voice logging machines, portable interview recorders/reproducers). They may also incorporate automatic date and time recording devices and devices that allow transfer of the recorded sound to a computer, or in some cases the media on which the sound is recorded can be removed for transfer to a computer.

(64) **Voice-operated microprocessor diary-organizers** fitted essentially with acoustic devices, a display screen, an annual timer and a microprocessor for digital sound recording. Recordings are made directly by the user in a language for which the device was programmed and the storage of the sound is made on a microprocessor. Information is selected by voice command in the recognized language. In addition, a programmed meeting, for example, is signalled automatically on the day and time specified in the user's own voice.

2. Exclusion paragraph. New exclusion (a).

(a) Presses or injection moulding machinery for replicating recorded optical discs of plastic (heading 84.77).

Page 1662. Heading 85.21.

1. Part (A).

**(A) RECORDING AND COMBINED RECORDING
AND REPRODUCING APPARATUS**

~~In television image and sound recording apparatus electric impulses (signals) which correspond to the images and the sound are recorded on media, generally consisting of magnetic tape. Generally the sound accompanying the image is recorded simultaneously on the same media, on one or several different tracks from that carrying the video recording. The signals can be obtained by connecting the recorder either to a television camera or to a television receiver.~~

These are apparatus which, when connected to a television camera or a television receiver, record on media electric impulses (analogue signals) or analogue signals converted into digital code (or a combination of these) which correspond to the images and sound captured by a television camera or received by a television receiver. Generally the images and sound are recorded on the same media. The method of recording can be by magnetic or optical means and the recording media is usually tapes or discs.

The heading also includes apparatus which record, generally on a magnetic disc, digital code representing video images and sound, by transferring the digital code from a computer (e.g., MPEG 2 video players).

In magnetic recording on tape the images and sound are recorded on different tracks on the tape whereas in magnetic recording on disc the images and sound are recorded as magnetic patterns or spots in spiral tracks on the surface of the disc.

In optical recording on disc the images and sound are recorded on a glass, metal or plastic disc with a light-sensitive lacquer coating (a photoresist) by a laser which burns the surface of the disc with microscopic indentations. These indentations may represent analogue signals (often representing the images) and digital code (representing the sound). The microscopic indentations representing analogue signals are traces of continuously variable length, whereas digital code is represented as indentations of fractions of fixed nominal length.

Video recording apparatus which receive signals from a television receiver also incorporate a tuner which enables selection of the desired signal (or channel) from the frequency band of signals transmitted by the television transmitting station."

~~When used for reproduction, the apparatus convert the recording (e.g., the magnetic patterns on the tape) into video signals. These signals are passed on either to a transmitting station or to a television receiver.~~

2. Part (B). Item (1).

- (1) Apparatus using ~~videe~~ discs in which the image and sound data are stored on the disc by various methods and picked up by a laser optical reading system, capacitive sensor, pressure sensor or magnetic head. Subject to Note 3 to Section XVI

apparatus which are capable of reproducing [image and sound data] [video (both image and sound) from digital versatile disks] and sound data [from compact discs] only are classified in this heading.

Page 1663.

1. Heading 85.21. Exclusion paragraph. New exclusion (b).

(b) Video cameras (heading 85.25).

2. Heading 85.22. Items (4) to (12).

(4) **Cassette shaped adapters** which enable sound reproduction from a portable optical disc player through a magnetic tape player.

Page 1664. Heading 85.22. Exclusion paragraph. New exclusion (c).

(c) Recording media of **heading 85.23 or 85.24.**

* * *

OBSERVATIONS OF THE REVIEW SUB-COMMITTEE

Heading 85.17.

Pages 1651 to 1654. Heading 85.17. Part (I) (A). Item (2).

Japan

- Doubted the classification of the product described in paragraph 48 of Doc. NR0306E1. Consequently, requested more information.

Pages 1651 to 1654. Heading 85.17. Part (I) (A). New items (i) and (ii).

Canada

- Had concerns concerning the references to cordless telephone sets and telephone sets which comprise a combined dialling selector and switching key unit. If necessary, will make a submission.

Pages 1651 to 1654. Heading 85.17. Part (I) (C).

Japan

- In the description of these videophones, replace the word “essentially” by the word “principally” because classification was based on GIR 1.

Pages 1651 to 1654. Heading 85.17. Part (II). New last paragraph.

Canada

- This reference to digital multifunction machines should be retained, as the HSC may take a decision at its November session, thereby providing some guidance to the RSC.

EC

- Agreed with **Canada** that the RSC would have to await the decision of the HSC. Pointed out that the Committee’s original decision was to classify some multifunction digital machines in heading 84.71 and some others in heading 85.17. Pointed out that the reasoning in paragraph 67 of Doc. NR0306E1 was not necessarily correct.

Pages 1651 to 1654. Heading 85.17. New part (III). Item (C).

EC

- Raised the point that the routers classified by the HS Committee in heading 84.71 were not included in the new text.

Switzerland

- Suggested the creation of an exclusion for ADP routers because the reference to routers on page 13 of the Annex may cause some confusion.

Canada

- Is there an alternative to the term “least cost routers” ?

Pages 1651 to 1654. Heading 85.17. Renumbered part (IV). Item (C).

EC

- Informed the Sub-Committee that caller number display units would be classified in heading 85.31 and not, as suggested, in subheading 8517.50 (paragraph 78 of Doc. NR0306E1).

Pages 1651 to 1654. Heading 85.17. Renumbered part (IV). Item (F).

- Wanted more information on this composite communication device, which is a combination telephone and internet terminal (paragraph 81 of Doc. NR0306E1).

Pages 1651 to 1654. Heading 85.17. Exclusion paragraph. New exclusion (h).

EC

- Informed the Sub-Committee that data encryption devices had been classified by the HS Committee in heading 84.71 and not in heading 85.43.

UK

- Suggested that there should be a reference in the Explanatory Note to video-conferencing equipment.

Heading 85.18.

Page 1656. Heading 85.18. Part (B). First paragraph. Introductory part.

Canada

- Had some concerns regarding the phrase “from an amplifier” and, if necessary, will make a submission.

Page 1656. Heading 85.18. Part (C). Second paragraph.

EC

- Reminded the Sub-Committee of a decision by the HS Committee concerning airmen’s headgear (exclusion (a) on page 1657).
- Requested the removal of the word “computer” wherever it appears in the text.
- Referenced the incorrect French translation of the expression “automatic data processing machine”.

Page 1657. Heading 85.18. Part (D). Last paragraph (exclusions).

Canada

- Had some concerns about the reference to “equalisers” and, if necessary, will make a submission.

EC

- Expressed doubts about paragraph 95 of Doc. NR0306E1 and the new wording of exclusion (c) concerning “cordless headphones”. At present these headphones might in fact fall in heading 85.18 and not heading 85.25.

Heading 85.19.

Page 1658. Heading 85.19. New item (4).

Canada

- Concerned with the wording. Informed the Sub-Committee that “microscopic pits” referred only to CD-ROM technology. Also suggested the insertion of “e.g.,” in the brackets on the first line of the text in order to avoid the appearance of an exhaustive list.

Page 1658. Heading 85.19. New item (7).

US

- Concerned with the wording. May submit comments.

Canada

- Agreed with the **US**.

Heading 85.20.

Page 1660. Part (A). New item (3).

Canada

- Did not share the Secretariat’s concerns outlined in paragraph 111 of Doc. NR0306E1.

EC

- Agreed with paragraph 105 of Doc. NR0306E1, but expressed concern regarding new item (3) on page 19 of the Annex concerning “electronic type”. Some MP3’s have their own memory and the HSC classified those in heading 85.20 while others had external memory and those were classified in heading 85.19. Therefore, had some doubts regarding the second sentence of Item (3) and felt that account had to be taken of the HSC decisions described by the Secretariat in paragraph 121 of Doc. NR0306E1.

US

- Agreed with the **EC** that account had to be taken of HSC decisions. Pointed out that the MP3-compatible apparatus classified by the HS Committee in heading 85.19 was actually a CD-Audio disc player that had MP3 decoding capability and was designed for installation in an automobile.

Canada

- Flash memory usually is capable of accepting data from ADP machines. Will reconfirm with the trade in this regard.

Heading 85.21.

Page 1662. Heading 85.21. Part (A). New second paragraph.

US

- Felt that this should not be limited to only a computer, as signals could be transferred to a disk via a television receiver. Will look at improving the text.

Page 1662. Heading 85.21. Part (B). Item (1). New last sentence.

Australia

- Agreed with the Secretariat's comments concerning this addition in paragraph 124 of Doc. NR0306E1.

US

- Will examine both the **Australian** and Secretariat's proposals.
