

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1590

DATE: JANUARY 1, 2023

PROJECT MP12209

The following classification changes will be effected by this Notice of Changes:

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Titles Changed:	H03B	SUBCLASS
	H03L	SUBCLASS
	H03L	1/00, 1/028
	H03L	7/00, 7/07, 7/083, 7/085, 7/12, 7/193, 7/195
Warnings Deleted:	H03L	SUBCLASS
Notes Modified:	H03L	SUBCLASS
DEFINITIONS:		
Definitions New:	H03L	7/12, 7/195
Definitions Modified:	H03L	SUBCLASS
	H03L	1/00, 5/00, 7/00, 7/07, 7/083, 7/085, 7/095, 7/193

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following [Check the ones included]:

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

3. REVISION CONCORDANCE LIST (RCL)

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5. CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS H03B - GENERATION OF OSCILLATIONS, DIRECTLY OR BY FREQUENCY-CHANGING, BY CIRCUITS EMPLOYING ACTIVE ELEMENTS WHICH OPERATE IN A NON-SWITCHING MANNER; GENERATION OF NOISE BY SUCH CIRCUITS

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	H03B	SUBCLASS	GENERATION OF OSCILLATIONS, DIRECTLY OR BY FREQUENCY-CHANGING, BY CIRCUITS EMPLOYING ACTIVE ELEMENTS WHICH OPERATE IN A NON-SWITCHING MANNER; GENERATION OF NOISE BY SUCH CIRCUITS (generators adapted for electrophonic musical instruments G10H; masers or lasers H01S; generation of oscillations in plasma H05H)	

SUBCLASS H03L - AUTOMATIC CONTROL, STARTING, SYNCHRONISATION, OR STABILISATION OF GENERATORS OF ELECTRONIC OSCILLATIONS OR PULSES

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	H03L	SUBCLASS	AUTOMATIC CONTROL, STARTING, SYNCHRONISATION OR STABILISATION OF GENERATORS OF ELECTRONIC OSCILLATIONS OR PULSES (generation of oscillations H03B)	
M	H03L 1/00	0	Stabilisation of generator output against variations of physical values, e.g. power supply	
M	H03L 1/028	2	{of generators comprising piezoelectric resonators (H03L 1/021, H03L 1/022 take precedence; oscillation generators with a piezoelectric resonator H03B 5/32)}	
M	H03L 7/00	0	Automatic control of frequency or phase; Synchronisation	
M	H03L 7/07	2	using several loops, e.g. for redundant clock signal generation	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	H03L 7/083	3	the reference signal being additionally directly applied to the generator	
M	H03L 7/085	3	concerning mainly the frequency- or phase-detection arrangement including the filtering or a amplification of its output signal (H03L 7/10 takes precedence; circuits for comparing the phase or frequency of two mutually-independent oscillations H03D 13/00)	
M	H03L 7/12	4	using a scanning signal	
M	H03L 7/193	5	the frequency divider/counter comprising a commutable pre-divider, e.g. a two modulus divider	
M	H03L 7/195	5	in which the counter of the loop counts between two different non zero numbers, e.g. for generating an offset frequency (H03L 7/193 takes precedence)	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T = existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “<administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or <administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.

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- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning(s)

SUBCLASS H03L - AUTOMATIC CONTROL, STARTING, SYNCHRONISATION

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
D	H03L	In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.	<u>Delete</u> the entire Warning.

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

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C. New, Modified or Deleted Note(s)

SUBCLASS H03L - AUTOMATIC CONTROL, STARTING, SYNCHRONISATION

<u>Type*</u>	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
M	H03L	<p>1. This subclass covers:</p> <ul style="list-style-type: none"> – automatic control circuits for generators of electronic oscillations or pulses; – starting, synchronisation, or stabilisation circuits for generators where the type of generator is irrelevant or unspecified. <p>2. This subclass does not cover stabilisation or starting circuits specially adapted to only one specific type of generator, which are covered by subclasses H03B, H03K.</p> <p>3. In this subclass, the following expression is used with the meaning indicated: – "automatic control" covers only closed loop systems.</p>	<p>1. This subclass covers:</p> <ul style="list-style-type: none"> • automatic control circuits for generators of electronic oscillations or pulses; • starting, synchronisation or stabilisation circuits for generators where the type of generator is irrelevant or unspecified. <p>2. In this subclass, the following expression is used with the meaning indicated:</p> <ul style="list-style-type: none"> • "automatic control" covers only closed loop systems.

*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

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2. A. DEFINITIONS (new)

H03L 7/12

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tuning circuits with automatic scanning over a band of frequencies	H03J 7/18
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H03L 7/195

References

Limiting references

This place does not cover:

Indirect frequency synthesis using a frequency divider or counter comprising a commutable pre-divider, e.g. a two modulus divider	H03L 7/193
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of pulse counters or frequency dividers	H03K 21/00
Pulse counters comprising counting chains; Frequency dividers comprising counting chains	H03K 23/00
Pulse counters with step-by-step integration and static storage; Analogous frequency dividers	H03K 25/00
Pulse counters in which pulses are continuously circulated in a closed loop; Analogous frequency dividers	H03K 27/00
Pulse counters comprising multi-stable elements, e.g. for ternary scale, for decimal scale; Analogous frequency dividers	H03K 29/00

2. A. DEFINITIONS (modified)

H03L

References

Limiting references

Replace: All the existing text with the following new Limiting references table:

Generation of oscillations	H03B
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Insert: The following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control or regulation of electric motors, electric generators or dynamo-electric converters; Controlling transformers, reactors or choke coils	H02P
Pulse technique	H03K

H03L 1/00

References

Informative references

Insert: The following new row into the existing Informative references table:

Automatic control	H03L 5/00, H03L 7/00
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H03L 5/00

Delete: The entire References/Limiting references section.

Insert: The following new Special rules section:

Special Rules of classification

Control of voltage, current or power wherein the generators are not generators for electronic oscillations or pulses, e.g. level shifts, power management, power supply regulators, automatic transmission power control, are not classified in H03L.

H03L 7/00

Definition statement

Replace: The Definition statement text with the following revised text:

- Automatic control of the frequency or phase of the output of the generator;
- Synchronisation.

Insert: The following new References/Informative references sections:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tuning of resonant circuits in general	H03J
Synchronising in digital communication systems, see the relevant groups in class	H04

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H03L 7/07

Definition statement

Replace: The Definition statement text with the following revised text:

Using several loops, each loop having each its own controlled oscillator and/or phase shifter.

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Using at least two phase detectors or a frequency and phase detector in the loop	H03L 7/087
Indirect frequency synthesis using more than one loop	H03L 7/22

H03L 7/083

Insert: The following new References/Informative references section:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Direct frequency synchronisation without loop	H03L 7/24
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H03L 7/085

Insert: The following new Limiting references and Informative references sections:

References

Limiting references

This place does not cover:

Details of the phase-locked loop for assuring initial synchronisation or for broadening the capture range	H03L 7/10
Circuits for comparing the phase or frequency of two mutually-independent oscillations	H03D 13/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Demodulation of angle-modulated oscillations	H03D 3/00
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H03L 7/095

Delete: The entire References/Limiting references section.

Insert: The following new Special rules of classification section:

Special rules of classification

Lock detectors without any detailed features. The lock detectors without detailed features are classified in other subgroups according to the purpose/use of the said lock detector.

H03L 7/193

Insert: The following new References/Informative references:

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References***Informative references****Attention is drawn to the following places, which may be of interest for search:*

Details of pulse counters or frequency dividers	H03K 21/00
Pulse counters comprising counting chains; Frequency dividers comprising counting chains	H03K 23/00
Pulse counters with step-by-step integration and static storage; Analogous frequency dividers	H03K 25/00
Pulse counters in which pulses are continuously circulated in a closed loop; Analogous frequency dividers	H03K 27/00
Pulse counters comprising multi-stable elements, e.g. for ternary scale, for decimal scale; Analogous frequency dividers	H03K 29/00