

SECTION H — ELECTRICITY

H03 BASIC ELECTRONIC CIRCUITRY

H03J TUNING RESONANT CIRCUITS; SELECTING RESONANT CIRCUITS (indicating arrangements for measuring G01D; measuring, testing G01R; remote-control in general G05, G08; automatic control or stabilisation of generators H03L)

Note(s)

This subclass covers also the control of tuning, including the combined control of tuning and other functions, e.g. combinations of tuning control and volume control, combinations of control of local oscillator and of supplementary resonant circuits.

Subclass index

TUNING

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| Continuous..... | 3/00 |
| Discontinuous..... | 5/00 |
| Automatic frequency control..... | 7/00 |
| Remote control..... | 9/00 |
| AUTOMATIC FREQUENCY SCANNING..... | 7/00 |
| DETAILS..... | 1/00 |

- 1/00 Details of adjusting, driving, indicating, or mechanical control arrangements for resonant circuits in general** (machine elements in general F16; coupling of knobs to shafts F16D) [3]
- 1/02 • Indicating arrangements
 - 1/04 • • with optical indicating means
 - 1/06 • Driving or adjusting arrangements; combined with other driving or adjusting arrangements, e.g. of gain control

Note(s)

Groups H03J 1/14, H03J 1/16 take precedence over groups H03J 1/08-H03J 1/12.

- 1/08 • • Toothed-gear drive; Worm drive
- 1/10 • • Rope drive; Chain drive
- 1/12 • • Friction drive
- 1/14 • • Special arrangements for fine and coarse tuning
- 1/16 • • Single control means independently performing two or more functions
- 1/18 • Control by auxiliary power
- 1/20 • • the auxiliary power being switched on as long as controlling current is switched on
- 1/22 • • with stepping arrangements actuated by control pulses
- 3/00 Continuous tuning** (H03J 7/00, H03J 9/00 take precedence; combination of continuous and discontinuous tuning other than for bandspreading H03J 5/00) [3]
 - 3/02 • Details
 - 3/04 • • Arrangements for compensating for variations of physical values, e.g. temperature (automatic control of ambient conditions G05D)
 - 3/06 • • Arrangements for obtaining constant bandwidth or gain throughout tuning range or ranges (automatic gain control H03G)

- 3/08 • • • by varying a second parameter simultaneously with the tuning, e.g. coupling bandpass filter
- 3/10 • • Circuit arrangements for fine tuning, e.g. bandspreading
- 3/12 • • Electrically-operated arrangements for indicating correct tuning
- 3/14 • • • Visual indication, e.g. magic eye
- 3/16 • • Tuning without displacement of reactive element, e.g. by varying permeability
- 3/18 • • • by discharge tube or semiconductor device simulating variable reactance
- 3/20 • of single resonant circuit by varying inductance only or capacitance only
- 3/22 • of single resonant circuit by varying inductance and capacitance simultaneously
- 3/24 • of more than one resonant circuit simultaneously, the circuits being tuned to substantially the same frequency, e.g. for single-knob tuning
- 3/26 • • the circuits being coupled so as to form a bandpass filter
- 3/28 • of more than one resonant circuit simultaneously, the tuning frequencies of the circuits having a substantially constant difference throughout the tuning range
- 3/30 • • Arrangements for ensuring tracking with variable inductors
- 3/32 • • Arrangements for ensuring tracking with variable capacitors
- 5/00 Discontinuous tuning; Selecting predetermined frequencies; Selecting frequency bands with or without continuous tuning in one or more of the bands, e.g. push-button tuning, turret tuner** (H03J 7/00, H03J 9/00 take precedence; for bandspreading H03J 3/10) [3]

- 5/02 • with variable tuning element having a number of predetermined settings and adjustable to a desired one of these settings
- 5/04 • • operated by hand
- 5/06 • • • Settings determined by single indexing means with snap action
- 5/08 • • • Settings determined by a number of separately-actuated positioning means
- 5/10 • • • Settings determined by a number of positioning means mounted on a common support, which is adjustable to desired positions, a different positioning means being in operation in each position
- 5/12 • • • Settings determined by a number of separately-actuated driving means which adjust the tuning element directly to desired settings
- 5/14 • • operated by auxiliary power
- 5/16 • • • Settings determined by a number of separate positioning means actuated by hand
- 5/18 • • • Settings determined by a number of separate positioning means actuated by electromagnets
- 5/20 • • • Settings determined by a number of positioning means actuated by a second means adjustable to different positions by the same or by a second auxiliary power
- 5/22 • • • Settings determined by a number of separately actuated driving means which adjust the tuning element directly to desired settings
- 5/24 • with a number of separate pretuned tuning circuits or separate tuning elements selectively brought into circuit, e.g. for waveband selection, for television channel selection (switches in general H01H)
- 5/26 • • operated by hand
- 5/28 • • • Tuning circuits or elements supported on a revolving member with contacts arranged in a plane perpendicular to the axis
- 5/30 • • • Tuning circuits or elements supported on a revolving member with contacts arranged in lines parallel to the axis
- 5/32 • • • Stationary tuning circuits or elements selected by push-button
- 7/00 Automatic frequency control; Automatic scanning over a band of frequencies [3]**
- 7/02 • Automatic frequency control (H03J 7/18 takes precedence; automatic tuning control for television receivers H04N 5/50) [3]
- 7/04 • • where the frequency control is accomplished by varying the electrical characteristics of a non-mechanically adjustable element or where the nature of the frequency controlling element is not significant [3]
- 7/06 • • • using counters or frequency dividers [3]
- 7/08 • • • using varactors, i.e. voltage variable reactive diodes (H03J 7/06 takes precedence) [3]
- 7/10 • • • • Modification of automatic frequency control sensitivity or linearising automatic frequency control operation [3]
- 7/12 • • • • Combination of automatic frequency control voltage with stabilised varactor supply voltage [3]
- 7/14 • • • Controlling the magnetic state of inductor cores (H03J 7/06 takes precedence) [3]
- 7/16 • • where the frequency control is accomplished by mechanical means, e.g. by a motor [3]
- 7/18 • Automatic scanning over a band of frequencies [3]
- 7/20 • • where the scanning is accomplished by varying the electrical characteristics of a non-mechanically adjustable element [3]
- 7/22 • • • in which an automatic frequency control circuit is brought into action after the scanning action has been stopped (H03J 7/24 takes precedence) [3]
- 7/24 • • • using varactors, i.e. voltage variable reactive diodes (H03J 7/28 takes precedence) [3]
- 7/26 • • • • in which an automatic frequency control circuit is brought into action after the scanning action has been stopped [3]
- 7/28 • • • using counters or frequency dividers [3]
- 7/30 • • where the scanning is accomplished by mechanical means, e.g. by a motor [3]
- 7/32 • • with simultaneous display of received frequencies, e.g. panoramic receivers [3]
- 9/00 Remote-control of tuned circuits; Combined remote-control of tuning and other functions, e.g. brightness, amplification (mechanical remote-control arrangements H03J 1/00) [3]**
- 9/02 • using radio transmission; using near-field transmission [3]
- 9/04 • using ultrasonic, sonic or infrasonic waves [3]
- 9/06 • using electromagnetic waves other than radio waves, e.g. light [3]