

## SECTION H — ELECTRICITY

### H04 ELECTRIC COMMUNICATION TECHNIQUE

#### H04Q SELECTING (switches, relays, selectors H01H; wireless communication networks H04W) [1, 2009.01]

##### Note(s) [1, 2009.01]

1. This subclass covers :
  - methods, circuits, or apparatus for establishing selectively a connection between a desired number of stations (normally two), or between a main station and a desired number of substations (normally one) for the purpose of transferring information via this connection after it has been established;
  - selective calling arrangements over connections already established.
2. In this subclass, the following terms or expressions are used with the meanings indicated:
  - "subscriber" is a general term for terminal equipment, e.g. telephone for public use;
  - "substation" means a subscriber or monitoring equipment which may connect a single subscriber to a line without choice as to subscriber;
  - "satellite" is a kind of exchange the operation of which depends upon control signals received from a supervisory exchange;
  - "switching centres" includes exchanges and satellites.

##### Subclass index

##### SELECTING ARRANGEMENTS

General; by line; multiplex.....3/00, 5/00, 11/00

DISPOSITIONS FOR TELECONTROL OR TELEMETRY .....9/00

DETAILS.....1/00

1/00	Details of selecting apparatus or arrangements	1/32	• • • using trains of dc pulses (H04Q 1/39 takes precedence) [3]
1/02	• Constructional details	1/34	• • • • Impulse regenerators with mechanical or other non-electrical marking arrangements
1/04	• • Frames or mounting racks for selector switches; Accessories therefor, e.g. frame cover	1/36	• • • • Pulse-correcting arrangements, e.g. for reducing effects due to interference
1/06	• • Cable ducts or mountings specially adapted for exchange installations	1/38	• • • using combinations of direct currents of different amplitudes or polarities over line conductors or combination of line conductors
1/08	• • Frames or mounting racks for relays; Accessories therefor	1/39	• • • using coded pulse groups [3]
1/10	• • Exchange station construction	1/40	• • • whereby duration of pulse or interval between two pulses is variable
1/12	• • Arrangements of multiple bars with or without pivotable frames	1/42	• • • • involving the position of a pulse in a cycle
1/14	• • Distribution frames	1/44	• • • using ac (H04Q 1/50 takes precedence) [3]
1/16	• • Wiring arrangements for selector switches or relays in frames	1/442	• • • • with out-of-voice band signalling frequencies [3]
1/18	• Electrical details	1/444	• • • • with voice-band signalling frequencies [3]
1/20	• • Testing circuits or apparatus; Circuits or apparatus for detecting, indicating, or signalling faults or troubles	1/446	• • • • • using one signalling frequency (H04Q 1/46 takes precedence) [3]
1/22	• • • Automatic arrangements	1/448	• • • • • with conversion of a single frequency signal into a digital signal [3]
1/24	• • • • for connection devices	1/45	• • • • • using multi-frequency signalling (H04Q 1/46 takes precedence) [3]
1/26	• • • • for signalling trouble in unoccupied sub-exchanges	1/453	• • • • • in which m-out-of-n signalling frequencies are transmitted [3]
1/28	• • Current-supply circuits or arrangements for selection equipment at exchanges	1/457	• • • • • with conversion of multi-frequency signals into digital signals [3]
1/30	• • Signalling arrangements; Manipulation of signalling currents (multiplex systems providing for calling or supervisory signals H04J 1/14, H04J 3/12)		

- 1/46 • • • • comprising means for distinguishing between a signalling current of predetermined frequency and a complex current containing that frequency, e.g. speech current [3]
- 1/48 • • • Induced-current signalling arrangements
- 1/50 • • • Conversion between different kinds of signals
- 1/54 • • Amplifier switched-on automatically in dependence on automatically selected lines
- 1/56 • • Balancing circuitry switched-on automatically in dependence on automatically selected lines
- 3/00 Selecting arrangements (H04Q 5/00-H04Q 11/00 take precedence)**
- 3/02 • Circuit arrangements for selectors responsive to a permutation code
- 3/04 • Circuit arrangements for receivers of routing digits
- 3/06 • • for group or trunk group selectors
- 3/08 • • for local or long-distance selectors
- 3/10 • • for PBX selectors, i.e. private branch exchange selectors
- 3/12 • • for line selectors providing transfer of routing digits
- 3/14 • • for two-way operation selectors
- 3/16 • • for marking-switches
- 3/18 • Circuit arrangements for first stage of hunting switching
- 3/20 • • for preselectors
- 3/22 • • • comprising common calling and disconnecting circuit
- 3/24 • • for line finders
- 3/26 • • • comprising common calling and disconnecting circuit
- 3/28 • • • comprising main groups and subgroups
- 3/30 • • Selector finders, i.e. alloters
- 3/32 • Circuit arrangements for second or subsequent stages of hunting switching [2]
- 3/34 • • for the second preselection stage
- 3/36 • • for the second line-finder stage
- 3/38 • • for stages after the group-selector stage
- 3/40 • • for stages after the line selector, e.g. for extension selector
- 3/42 • Circuit arrangements for indirect selecting controlled by common circuits, e.g. register controller, marker
- 3/44 • • using revertive control
- 3/46 • • using signals other than revertive impulses
- 3/47 • • using translators
- 3/48 • • using markers
- 3/49 • • • for end-to-end marking
- 3/495 • • • for routing connecting paths
- 3/52 • • using static devices in switching stages, e.g. electronic switching arrangements [2]
- 3/54 • • in which the logic circuitry controlling the exchange is centralised
- 3/545 • • • using a stored programme [4]
- 3/55 • • • using wired logic circuitry [4]
- 3/555 • • • • being comprised by electro-magnetic devices [4]
- 3/56 • • in which the control signals are multiplexed [2]
- 3/58 • Arrangements providing connection between main exchange and sub-exchange or satellite

- 3/60 • • for connecting to satellites or concentrators which connect one or more exchange lines with a group of local lines
- 3/62 • • for connecting to private branch exchanges
- 3/64 • Distributing or queuing
- 3/66 • • Traffic distributors
- 3/68 • • Grouping or interlacing selector groups or stages
- 3/70 • Identification of class of calling subscriber
- 3/72 • Finding out and indicating number of calling subscriber
- 3/74 • • Identification of subscriber calling from a party-line
- 3/76 • Translation from the called subscriber's number to the outgoing or incoming control information [4]
- 3/78 • Temporary storage of information of calling or called subscriber (intermediate storage means for telegraphic communication H04L 13/08) [4]
- 5/00 Selecting arrangements wherein two or more subscriber stations are connected by the same line to the exchange**
- 5/02 • with direct connection for all subscribers, i.e. party-line system (H04Q 5/24 takes precedence)
- 5/04 • • Signalling by currents in one or other or both line wires or additional wires
- 5/06 • • Signalling by amplitude or polarity of dc
- 5/08 • • Signalling by continuous ac
- 5/10 • • • using single frequencies for different subscribers
- 5/12 • • • using combinations of frequencies
- 5/14 • • Signalling by pulses
- 5/16 • • • by predetermined number of pulses
- 5/18 • with indirect connection, i.e. through subordinate switching centre
- 5/20 • • the subordinate centre permitting interconnection of subscribers connected thereto
- 5/22 • • the subordinate centre not permitting interconnection of subscribers connected thereto
- 5/24 • for two-party-line systems
- 9/00 Arrangements in telecontrol or telemetry systems for selectively calling a substation from a main station, in which substation desired apparatus is selected for applying a control signal thereto or for obtaining measured values therefrom**
- 9/02 • Automatically-operated arrangements
- 9/04 • Arrangements for synchronous operation
- 9/06 • Calling by using amplitude or polarity of dc
- 9/08 • Calling by using continuous ac
- 9/10 • • using single different frequencies
- 9/12 • • using combinations of frequencies
- 9/14 • Calling by using pulses
- 9/16 • • by predetermined number of pulses
- 11/00 Selecting arrangements for multiplex systems (multiplex systems H04J)**
- 11/02 • for frequency-division multiplexing
- 11/04 • for time-division multiplexing
- 11/06 • • Time-space-time switching [5]
- 11/08 • • Time only switching [5]