

**CPC****COOPERATIVE PATENT CLASSIFICATION****G07C**

**TIME OR ATTENDANCE REGISTERS; REGISTERING OR INDICATING THE WORKING OF MACHINES; GENERATING RANDOM NUMBERS; VOTING OR LOTTERY APPARATUS; ARRANGEMENTS, SYSTEMS OR APPARATUS FOR CHECKING NOT PROVIDED FOR ELSEWHERE**

( finger printing [A61B 5/103](#); indicating or recording apparatus for measuring in general, analogous apparatus but in which the input is not a variable to be measured, e.g. a hand operation, [G01D](#) ; clocks, clock mechanisms [G04B](#) , [G04C](#) ; time-interval measuring [G04F](#) ; counting mechanisms per se [G06M](#) )

**G07C 1/00**

**Registering, indicating or recording the time of events or elapsed time, e.g. time-recorders for work people** ( registering or indicating the working of machines or vehicles [G07C 3/00](#), [G07C 5/00](#) )

**NOTE**

Subgroups [G07C 1/20](#) to [G07C 1/32](#) take precedence over subgroups [G07C 1/02](#) to [G07C 1/18](#)

- [G07C 1/02](#) . not involving the registering, indicating or recording of other data
- [G07C 1/04](#) . . wherein the time is indicated in figures
- [G07C 1/06](#) . . . with apparatus adapted for use with individual cards
- [G07C 1/08](#) . . wherein the time is indicated by marking an element, e.g. a card or tape, in position determined by the time
- [G07C 1/10](#) . together with the recording, indicating or registering of other data, e.g. of signs of identity ( together with the recording of a continuously-varying variable [G01D](#) or the appropriate other subclass of [G01](#) , dependent on the variable )
- [G07C 1/12](#) . . wherein the time is indicated in figures
- [G07C 1/14](#) . . . with apparatus adapted for use with individual cards
- [G07C 1/16](#) . . wherein the time is indicated by marking an element, e.g. a card or tape, in a position determined by the time
- [G07C 1/18](#) . . . with apparatus adapted for use with individual cards
- [G07C 1/20](#) . Checking timed patrols, e.g. of watchman
- [G07C 1/22](#) . in connection with sports or games
- [G07C 1/24](#) . . Race time-recorders ( race-finish cameras [G03B 41/00](#) )
- [G07C 1/26](#) . . Pigeon-timing or like equipment
- [G07C 1/28](#) . . Indicating playing time
- [G07C 1/30](#) . Parking meters ( registering or indicating waiting time of vehicles by means driven by the vehicle [G07C 5/02](#); coin-freed parking meters [G07F 17/24](#) )
- [G07C 1/32](#) . Time-recording locks ( locks giving indication of unauthorised unlocking [E05B 39/00](#) )
- G07C 3/00** **Registering or indicating the condition or the working of machines or other**

**apparatus, other than vehicles** ( engine indicators [G01L](#) ; testing apparatus incident to its manufacture [G01M](#) ; signalling arrangements per se, indicating undesired or abnormal working conditions [G08B](#) )

- G07C 3/005 . { during manufacturing process }
- G07C 3/02 . Registering or indicating working or idle time only
- G07C 3/04 . . . using counting means or digital clocks
- G07C 3/045 . . . { Mechanical counters or clocks }
- G07C 3/06 . . in graphical form
- G07C 3/08 . Registering or indicating the production of the machine either with or without registering working or idle time
- G07C 3/10 . . using counting means ( counting mechanisms per se [G06M](#) )
- G07C 3/12 . . in graphical form
- G07C 3/14 . Quality control systems
- G07C 3/143 . . { Finished product quality control }
- G07C 3/146 . . { during manufacturing process }
- G07C 5/00** **Registering or indicating the working of vehicles** ( for measuring distance travelled or combinations of speed and distance [G01C](#) ; engine indicators [G01L](#) ; devices for measuring speed or acceleration [G01P](#) )
- G07C 5/002 . { Analysing tachograph charts ( arrangements for graph-reading in general [G06K 11/00](#) ) }
- G07C 5/004 . { Indicating the operating range of the engine ( economical driving [B60R 16/0236](#), [F02B 77/084](#); measuring liquid fuel of an engine [G01F 9/00](#) ) }
- G07C 5/006 . { Indicating maintenance }
- G07C 5/008 . { communicating information to a remotely located station ( transmission systems for measured values [G08C](#) ) }
- G07C 5/02 . Registering or indicating driving, working, idle, or waiting time only ( apparatus forming part of taximeters [G07B](#) )
- G07C 5/04 . . using counting means or digital clocks
- G07C 5/06 . . in graphical form
- G07C 5/08 . Registering or indicating performance data other than driving, working, idle, or waiting time, with or without registering driving, working, idle or waiting time
- G07C 5/0808 . . { Diagnosing performance data ( testing of vehicles [G01M 17/00](#); testing of electrical installation on vehicles [G01R 31/00D](#) ) }
- G07C 5/0816 . . { Indicating performance data, e.g. occurrence of a malfunction }
- G07C 5/0825 . . . { using optical means }
- G07C 5/0833 . . . { using audio means }
- G07C 5/0841 . . { Registering performance data ( recording measured values [G01D](#) ; information

storage [G11B](#) ) }

- G07C 5/085     ...     { using electronic data carriers }
- G07C 5/0858     ....     { wherein the data carrier is removable }
- G07C 5/0866     ....     { the electronic data carrier being a digital video recorder in combination with video camera }
- G07C 5/0875     ...     { using magnetic data carriers }
- G07C 5/0883     ....     { wherein the data carrier is removable }
- G07C 5/0891     ....     { Video recorder in combination with video camera }
- G07C 5/10     ..     using counting means or digital clocks
- G07C 5/12     ..     in graphical form

**G07C 7/00**     **Details or accessories common to the registering or indicating apparatus of groups [G07C 3/00](#) and [G07C 5/00](#)**

**G07C 9/00**     **Individual entry or exit registers**

**NOTE**

This group covers:

- controlling and registering access of persons to restricted areas or devices

This group does not cover:

- electric permutation locks using mechanical keys, covered by [E05B 49/00](#);
- apparatus actuated by coded identity cards or credit cards, to free or actuate vending, hiring or money-dispensing, covered by [G07F 7/08](#);
- access to facilities or services by means of coins or tokens, covered by [G07F 17/00](#);
- arrangements actuated by coded cards for dispensing or receiving money and posting such transactions to existing accounts, e.g. automatic teller machines, covered by [G07F 19/00](#)

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

- [G06K 7/00](#), [G06K 19/00](#) arrangements for sensing or reading record carriers
- [H03K 17/00](#) electronic switching
- [G06K 9/00](#) biometric sensors, recognising biometric patterns
- [A61B 5/117](#) biometric identification used for diagnostic purposes
- [G06F 1/00](#) access to data processing equipment

- G07C 9/00007     .     { Access-control involving the use of a pass ( for electromagnetical or electronical keys and locks, see [E05B 49/00](#) ) }
- G07C 9/00015     ..     { the pass having a variable code, e.g. varied by the controlling system ( [G07C 9/00103](#) takes precedence ) }
- G07C 9/00023     ..     { the system having a variable access-code, e.g. varied as a function of time }
- G07C 9/00031     ..     { in combination with an identity-check of the pass-holder ( recognizing patterns, e.g. fingerprints or signatures [G06K 9/00](#) ) }

|                 |       |   |
|-----------------|-------|---|
| G07C 9/00039    | ...   | { by means of a pass-word } ( <a href="#">G07F 7/00</a> takes precedence )  |
| G07C 9/00047    | ...   | { by means of the handwritten signature of the pass-holder }  |
| G07C 9/00055    | ....  | { visually, e.g. by comparing in a viewer the written signature with a reference on the pass }  |
| G07C 9/00063    | ....  | { electronically, e.g. by comparing signal of hand-writing with a reference signal from the pass }  |
| G07C 9/00071    | ...   | { by means of personal physical data, e.g. characteristic facial curves, hand geometry, voice spectrum, fingerprints ( <a href="#">measuring or recording devices for testing the shape, pattern, size or movement of the body or parts thereof per se A61B 5/103</a> ) }   |
| G07C 9/00079    | ....  | { visually }  |
| G07C 9/00087    | ....  | { electronically }  |
| G07C 2009/00095 | ..... | comprising a biometric sensor on the pass   |
| G07C 9/00103    | ..    | { with central registration and control, e.g. for swimming pools or hotel-rooms, generally in combination with a pass-dispensing system }   |
| G07C 9/00111    | ..    | { the pass performing a presence indicating function, e.g. identification tag or transponder ( <a href="#">identification by using radar means G01S 13/02A</a> , <a href="#">G01S 13/74</a> ; detecting presence by using magnetic or electric fields produced or modified by objects in general <a href="#">G01V 3/08</a> , <a href="#">G01V 3/165</a> ; means for indicating the location of accidentally buried persons <a href="#">A63B 29/02</a> ) } |
| G07C 9/00119    | ..    | { the pass containing active electronic elements ( <a href="#">active credit cards G07F 7/08</a> ; record carriers characterised by digital working <a href="#">G06K 19/06</a> ) }  |
| G07C 9/00126    | .     | { Access control not involving the use of a pass ( <a href="#">permutation locks E05B 49/00</a> ; access to facilities or services by means of coins or tokens <a href="#">G07F 17/00</a> ) }   |
| G07C 9/00134    | ..    | { in combination with an identity-check }   |
| G07C 9/00142    | ...   | { by means of a pass-word }   |
| G07C 9/0015     | ...   | { by means of a handwritten signature }   |
| G07C 9/00158    | ...   | { by means of a personal physical data }  |
| G07C 9/00166    | ..    | { with central registration and control }   |
| G07C 9/00174    | .     | { Electronically operated locks; Circuits therefor; Nonmechanical keys therefor, e.g. passive or active electrical keys or other data carriers without mechanical keys ( <a href="#">mechanical locks with electric permutation E05B 49/00</a> ; arrangements for sensing or reading record carriers <a href="#">G06K 7/00</a> , <a href="#">G06K 9/00</a> ; electronic switching <a href="#">H03K 17/00</a> ) }  |
| G07C 9/00182    | ..    | { operated with unidirectional data transmission between data carrier and locks }   |
| G07C 2009/0019  | ...   | the keyless data carrier having only one limited data transmission ranges   |
| G07C 2009/00198 | ...   | the keyless data carrier having more than one limited data transmission ranges  |
| G07C 2009/00206 | ...   | the keyless data carrier being hand operated  |
| G07C 2009/00214 | ....  | by one push button  |
| G07C 2009/00222 | ....  | by more than one push button  |
| G07C 2009/0023  | ...   | with encryption of the transmitted data signal  |
| G07C 2009/00238 | ...   | the transmitted data signal containing a code which is changed  |
| G07C 2009/00246 | ....  | periodically, e.g. after a time period  |
| G07C 2009/00253 | ....  | dynamically, e.g. variable code - rolling code  |
| G07C 2009/00261 | ...   | the keyless data carrier having more than one function  |
| G07C 2009/00269 | ....  | opening and locking of all locks at the same time   |

|                 |       |   |
|-----------------|-------|---|
| G07C 2009/00277 | ....  | opening of different locks separately   |
| G07C 2009/00285 | ....  | immobilizer   |
| G07C 2009/00293 | ....  | anti-theft  |
| G07C 2009/00301 | ....  | starting ignition   |
| G07C 9/00309    | ..    | { operated with bidirectional data transmission between data carrier and locks }                    |
| G07C 2009/00317 | ...   | keyless data carrier having only one limited data transmission range                                |
| G07C 2009/00325 | ....  | and the lock having only one limited data transmission range  |
| G07C 2009/00333 | ....  | and the lock having more than one limited data transmission ranges                                  |
| G07C 2009/00341 | ...   | keyless data carrier having more than one limited data transmission ranges                          |
| G07C 2009/00349 | ....  | and the lock having only one limited data transmission range  |
| G07C 2009/00357 | ....  | and the lock having more than one limited data transmission ranges                                  |
| G07C 2009/00365 | ...   | in combination with a wake-up circuit   |
| G07C 2009/00373 | ....  | whereby the wake-up circuit is situated in the lock   |
| G07C 2009/0038  | ....  | whereby the wake-up circuit is situated in the keyless data carrier                                 |
| G07C 2009/00388 | ...   | code verification carried out according to the challenge/response method                            |
| G07C 2009/00396 | ....  | starting with prompting the keyless data carrier  |
| G07C 2009/00404 | ....  | starting with prompting the lock  |
| G07C 2009/00412 | ...   | the transmitted data signal being encrypted   |
| G07C 2009/0042  | ...   | the transmitted data signal containing a code which is changed                                      |
| G07C 2009/00428 | ....  | periodically after a time period  |
| G07C 2009/00436 | ..... | by the system   |
| G07C 2009/00444 | ..... | by the key  |
| G07C 2009/00452 | ..... | by the lock   |
| G07C 2009/0046  | ..... | randomly  |
| G07C 2009/00468 | ..... | after n uses  |
| G07C 2009/00476 | ....  | dynamically   |
| G07C 2009/00484 | ..... | whereby the code is a variable code   |
| G07C 2009/00492 | ..... | whereby the code is a rolling code  |
| G07C 2009/005   | ..... | whereby the code is a random code   |
| G07C 2009/00507 | ...   | keyless data carrier having more than one function  |
| G07C 2009/00515 | ....  | opening and locking of all locks at the same time   |
| G07C 2009/00523 | ....  | opening of different locks separately   |
| G07C 2009/00531 | ....  | immobilizer   |
| G07C 2009/00539 | ....  | anti-theft  |
| G07C 2009/00547 | ....  | starting ignition   |
| G07C 2009/00555 | ...   | comprising means to detect or avoid relay attacks   |
| G07C 9/00563    | ..    | { using personal physical data of the operator, e.g. finger prints, retinal images, voicepatterns } |
| G07C 9/00571    | ..    | { operated by interacting with a central unit }   |
| G07C 2009/00579 | ..    | Power supply for the keyless data carrier   |
| G07C 2009/00587 | ...   | by battery  |
| G07C 2009/00595 | ...   | by solar energy   |

|                 |      |  |
|-----------------|------|--|
| G07C 2009/00603 | ...  | by power transmission from lock  |
| G07C 2009/00611 | .... | by using inductive transmission  |
| G07C 2009/00619 | .... | by using capacitive transmission   |
| G07C 2009/00626 | .... | by using optical transmission  |
| G07C 2009/00634 | ..   | Power supply for the lock  |
| G07C 2009/00642 | ...  | by battery   |
| G07C 2009/0065  | ...  | by solar energy  |
| G07C 9/00658    | ..   | { operated by passive electrical keys }  |
| G07C 9/00666    | ...  | { with dials }   |
| G07C 9/00674    | ...  | { with switch-buttons }  |
| G07C 9/00682    | .... | { actuated repeatedly }  |
| G07C 9/0069     | .... | { actuated in a predetermined sequence }   |
| G07C 9/00698    | .... | { actuated in function of displayed informations }   |
| G07C 9/00706    | ...  | { with conductive components, e.g. pins, wires, metallic strips }  |
| G07C 9/00714    | ...  | { with passive electrical components, e.g. resistor, capacitor, inductor }   |
| G07C 9/00722    | ...  | { with magnetic components, e.g. magnets, magnetic strips, metallic inserts<br>( mechanical locks operated by permanent magnets <a href="#">E05B 47/0038</a> ) } |
| G07C 9/0073     | .... | { actuating magnetically controlled switches, e.g. reed relays }   |
| G07C 9/00738    | .... | { sensed by Hall effect devices }  |
| G07C 2009/00746 | ...  | by knocking on a surface for inputting the code e.g. detecting a series of taps on a surface   |
| G07C 2009/00753 | ..   | operated by active electrical keys   |
| G07C 2009/00761 | ...  | with data transmission performed by connected means, e.g. mechanical contacts, plugs, connectors   |
| G07C 2009/00769 | ...  | with data transmission performed by wireless means   |
| G07C 2009/00777 | .... | by induction   |
| G07C 2009/00785 | .... | by light   |
| G07C 2009/00793 | .... | by Hertzian waves  |
| G07C 2009/00801 | .... | by acoustic waves  |
| G07C 2009/00809 | ...  | with data transmission through the human body  |
| G07C 9/00817    | ..   | { where the code of the lock can be programmed }   |
| G07C 2009/00825 | ...  | remotely by lines or wireless communication  |
| G07C 2009/00833 | ...  | by code input from switches  |
| G07C 2009/00841 | ...  | by a portable device   |
| G07C 2009/00849 | ...  | programming by learning  |
| G07C 9/00857    | ..   | { where the code of the data carrier can be programmed }   |
| G07C 2009/00865 | ...  | remotely by wireless communication   |
| G07C 2009/00873 | ...  | by code input from the lock  |
| G07C 2009/0088  | ...  | centrally  |
| G07C 2009/00888 | ...  | programming by learning  |
| G07C 9/00896    | ..   | { specially adapted for particular uses }  |
| G07C 9/00904    | ...  | { for hotels, motels, office buildings or the like }   |
| G07C 9/00912    | ...  | { for safes, strong-rooms, vaults or the like }  |

|                     |     |  |
|---------------------|-----|--|
| G07C 2009/0092      | ... | for cargo, freight or shipping containers and applications therefore in general  |
| G07C 2009/00928     | ... | for garage doors   |
| G07C 2009/00936     | ... | for key cabinets   |
| G07C 9/00944        | ..  | { Details of construction or manufacture }   |
| G07C 2009/00952     | ... | Electronic keys comprising a mechanical key within their housing, e.g. extractable or retractable emergency key  |
| G07C 2009/0096      | ... | Electronic keys comprising a non-biometric sensor  |
| G07C 2009/00968     | ..  | shape of the data carrier  |
| G07C 2009/00976     | ... | card   |
| G07C 2009/00984     | ... | fob  |
| G07C 2009/00992     | ... | mechanical key   |
| G07C 9/02           | .   | Turnstiles with registering means ( turnstiles per se <a href="#">E04H</a> ; coin-freed aspects <a href="#">G07F</a> )   |
| G07C 9/025          | ..  | { with arrangements to prevent the passage of more than one person at a time, e.g. with fotocell-barrier }   |
| <b>G07C 11/00</b>   |     | <b>Arrangements, systems, or apparatus for checking, e.g. the occurrence of a condition, not provided for elsewhere ( signalling or alarm arrangements <a href="#">G08B</a> )</b>  |
| G07C 2011/02        | .   | related to amusement parks   |
| G07C 2011/04        | .   | related to queuing systems   |
| <b>G07C 13/00</b>   |     | <b>Voting apparatus</b>  |
| G07C 13/005         | .   | { operating mechanically }   |
| G07C 13/02          | .   | Ballot boxes   |
| <b>G07C 15/00</b>   |     | <b>Generating random numbers; Lottery apparatus ( { games in general <a href="#">A63F</a> ; } digital computer arrangements for generating random or pseudo-random numbers <a href="#">G06F 7/58</a>; generating electric pulses at random intervals <a href="#">H03K 3/84</a> )</b> |
| G07C 15/001         | .   | { with balls or the like }   |
| G07C 15/003         | ..  | { hand-held }  |
| G07C 15/005         | .   | { with dispensing of lottery tickets }   |
| G07C 15/006         | .   | { electronically }   |
| G07C 15/008         | ..  | { electronic dies }  |
| <b>G07C 2205/00</b> |     | <b>Indexing scheme relating to group <a href="#">G07C 5/00</a></b>   |
| G07C 2205/02        | .   | using a vehicle scan tool  |
| <b>G07C 2209/00</b> |     | <b>Indexing scheme relating to groups <a href="#">G07C 9/00</a> to <a href="#">G07C 9/02</a></b>   |

- G07C 2209/02 . Access control comprising means for the enrolment of users
- G07C 2209/04 . Access control involving a hierarchy in access rights
- G07C 2209/06 . Involving synchronization or resynchronization between transmitter and receiver; reordering of codes
- G07C 2209/08 . With time considerations, e.g. temporary activation, valid time window or time limitations
- G07C 2209/10 . Comprising means for protocol conversion, i.e. format conversion
- G07C 2209/12 . Comprising means for protecting or securing the privacy of biometric data, e.g. cancellable biometrics
- G07C 2209/14 . With a sequence of inputs of different identification information
- G07C 2209/40 . Indexing scheme relating to group [G07C 9/00007](#) to [G07C 9/00119](#)
- G07C 2209/41 . . with means for the generation of identity documents
- G07C 2209/60 . Indexing scheme relating to groups [G07C 9/00174](#) to [G07C 9/00944](#)
- G07C 2209/61 . . Signal comprising different frequencies, e.g. frequency hopping
- G07C 2209/62 . . Comprising means for indicating the status of the lock
- G07C 2209/63 . . Comprising locating means for detecting the position of the data carrier, i.e. within the vehicle or within a certain distance from the vehicle
- G07C 2209/64 . . . using a proximity sensor
- G07C 2209/65 . . . using means for sensing the user's hand