

**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](#))

<b>G07C 3/00</b>	<b>Registering or indicating the condition or the working of machines or other apparatus, other than vehicles</b> (engine indicators <a href="#">G01L</a> ; testing apparatus incident to its manufacture <a href="#">G01M</a> ; signalling arrangements per se, indicating undesired or abnormal working conditions <a href="#">G08B</a> )
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 <a href="#">G06M</a> )
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}
<b>G07C 5/00</b>	<b>Registering or indicating the working of vehicles</b> (for measuring distance travelled or combinations of speed and distance <a href="#">G01C</a> ; engine indicators <a href="#">G01L</a> ; devices for measuring speed or acceleration <a href="#">G01P</a> )
G07C 5/002	. {Analysing tachograph charts (arrangements for graph-reading in general <a href="#">G06K 11/00</a> )}
G07C 5/004	. {Indicating the operating range of the engine (economical driving <a href="#">B60R 16/0236</a> , <a href="#">F02B 77/084</a> ; measuring liquid fuel of an engine <a href="#">G01F 9/00</a> )}
G07C 5/006	. {Indicating maintenance}
G07C 5/008	. {communicating information to a remotely located station (transmission systems for measured values <a href="#">G08C</a> )}
G07C 5/02	. Registering or indicating driving, working, idle, or waiting time only (apparatus forming part of taximeters <a href="#">G07B</a> )
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 <a href="#">G01M 17/00</a> ; testing of electrical installation on vehicles <a href="#">G01R 31/005</a> )}
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 <a href="#">G01D</a> ; information storage <a href="#">G11B</a> )}
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**

1. This group covers:
  - controlling and registering access of persons to restricted areas or devices
2. 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](#)
3. 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} ([G07F 7/00](#) 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 (measuring or recording devices for testing the shape, pattern, size or movement of the body or parts thereof per se <a href="#">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 (identification by using radar means <a href="#">G01S 13/02</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 (active credit cards <a href="#">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 (permutation locks <a href="#">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 (mechanical locks with electric permutation <a href="#">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 rangs}
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 encription of the transmittted data signal}
G07C 2009/00238	...	{the transmittted 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 (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 ( <a href="#">turnstiles per se 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</b> ( <a href="#">signalling or alarm arrangements G08B</a> )
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</b> ({ <a href="#">games in general A63E</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> )
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