

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 } ([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 A61B 5/103](#)) }
- 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 G01S 13/02A, G01S 13/74](#); detecting presence by using magnetic or electric fields produced or modified by objects in general [G01V 3/08, G01V 3/165](#); means for indicating the location of accidentally buried persons [A63B 29/02](#)) }
- G07C 9/00119 . . {the pass containing active electronic elements ([active credit cards G07F 7/08](#); record carriers characterised by digital working [G06K 19/06](#)) }
- G07C 9/00126 . {Access control not involving the use of a pass ([permutation locks E05B 49/00](#); access to facilities or services by means of coins or tokens [G07F 17/00](#)) }
- 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 E05B 49/00](#); arrangements for sensing or reading record carriers [G06K 7/00, G06K 9/00](#); electronic switching [H03K 17/00](#)) }
- 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 (mechanical locks operated by permanent magnets E05B 47/0038) }
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 E04H ; coin-freed aspects G07F)
G07C 9/025	..	{with arrangements to prevent the passage of more than one person at a time, e.g. with fotocell-barrier }
G07C 11/00		Arrangements, systems, or apparatus for checking, e.g. the occurrence of a condition, not provided for elsewhere (signalling or alarm arrangements G08B)
G07C 2011/02	.	related to amusement parks
G07C 2011/04	.	related to queuing systems
G07C 13/00		Voting apparatus
G07C 13/005	.	{operating mechanically }
G07C 13/02	.	Ballot boxes
G07C 15/00		Generating random numbers; Lottery apparatus ({games in general A63F ; } digital computer arrangements for generating random or pseudo-random numbers G06F 7/58; generating electric pulses at random intervals H03K 3/84)
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 }
G07C 2205/00		Indexing scheme relating to group G07C 5/00
G07C 2205/02	.	using a vehicle scan tool
G07C 2209/00		Indexing scheme relating to groups G07C 9/00 to G07C 9/02

- 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