

CPC**COOPERATIVE PATENT CLASSIFICATION****G08B**

SIGNALLING OR CALLING SYSTEMS; ORDER TELEGRAPHS; ALARM SYSTEMS (signalling arrangements on vehicles [B60Q](#), [B62D 41/00](#); railway signalling systems or devices [B61L](#); on cycles [B62J 3/00](#), [B62J 6/00](#); safes or strong-rooms with alarm devices [E05G](#); signalling or alarm devices in mines [E21F 17/18](#); lamps or shutters therefor [F21](#); sensitive measuring elements, see the appropriate subclasses of [G01](#); traffic control systems [G08G](#); visual indicating means [G09](#); sound-producing devices [G10](#); radio or near-field calling systems [H04B 5/00](#), [H04B 7/00](#); selecting arrangements [H04Q7/00](#), [H04Q 9/00](#); loudspeakers, microphones, gramophone pick-ups or like acoustic electromechanical transducers [H04R](#))

NOTES

1. This subclass covers also means for identifying or incapacitating burglars or the like.
2. This subclass does not cover:
 - the mere provision of an audible or visible signalling device on measuring or switching apparatus;
 - alarm systems for indicating that a specific variable has exceeded, or fallen below, a predetermined value, which are covered by the relevant subclasses of class [G01](#) for the measurement of that variable.
 - alarms for specific processes or types of machines or apparatus, which are covered by the relevant subclasses for the processes, machines, or apparatus.
3. In this subclass, the following term is used with the meaning indicated:
 - "systems" may cover also devices peculiar thereto.

G08B 1/00

Systems for signalling characterised solely by the form of transmission of the signal

G08B 1/02

- using only mechanical transmission

G08B 1/04

- using hydraulic transmission; using pneumatic transmission

G08B 1/06

- . hydraulic only

G08B 1/08

- using electric transmission; {transformation of alarm signals to electrical signals from a different medium, e.g. transmission of an electric alarm signal upon detection of an audible alarm signal}

G08B 2001/085

- . {Partner search devices}

G08B 3/00

Audible signalling systems; Audible personal calling systems ({signalling devices actuated by tyre pressure [B60C 23/02](#); alarm locks [E05B 45/00](#), e.g. with mechanically-operated bells [E05B 45/02](#), electric [E05B 45/06](#)}; audible indication of time signals [G04B 21/00](#), [G04C 21/00](#); {sound producing devices, e.g. hooter, buzzer, [G10K](#); telephonic systems provided with personal calling arrangements [H04M 11/022](#)})

G08B 3/02

- using only mechanical transmission

G08B 3/06

- using hydraulic transmission; using pneumatic transmission

- G08B 3/10
 - using electric transmission; using electromagnetic transmission [{\(intercoms H04M 11/02; distributing signals to two or more loudspeakers H04R 3/12; loudspeakers for public address systems H04R 27/00\)}](#)
- G08B 3/1008
 - • [{Personal calling arrangements or devices, i.e. paging systems \(telephonic systems with personal calling arrangements H04M 11/022; selective calling systems and call receivers H04W 84/00, H04W 84/00, H04W 68/00\)}](#)
- G08B 3/1016
 - • • [{using wireless transmission \(calling systems using transmission by inductive loop H04B 5/04\)}](#)
- G08B 3/1025
 - • • • [{Paging receivers with audible signalling details}](#)
- G08B 3/1033
 - • • • • [{with voice message alert}](#)
- G08B 3/1041
 - • • • • [{with alternative alert, e.g. remote or silent alert}](#)
- G08B 3/105
 - • • • • [{with call or message storage means}](#)
- G08B 3/1058
 - • • • • [{Pager holders or housings \(casings for electric apparatus H05K 5/00\)}](#)
- G08B 3/1066
 - • • • • [{with other provisions not elsewhere provided for, e.g. turn-off protection}](#)
- G08B 3/1075
 - • • • • [{Paging racks}](#)
- G08B 3/1083
 - • • • • [{Pager locating systems \(locating mobile subscribers in general H04W 64/00\)}](#)
- G08B 3/1091
 - • • • • [{Group calling}](#)
- G08B 3/14
 - using explosives [{\(explosive signals for railways B61L; detonating alarm locks E05B 45/04\)}](#)
- G08B 5/00**

Visible signalling systems, e.g. personal calling systems, remote indication of seats occupied [{\(locks with visible signalling devices E05B 39/00; electro-, magneto- or acousto-optic display devices G02F\); display of time signals G04B 19/00, G04C 17/00, G04C 19/00, G04G 9/00; for display of alphanumeric information G09F; flags, banners G09F; {display tubes H01J 17/49, H01K 7/04; electro-luminescent devices H05B 33/00\)}](#)
- G08B 5/002
 - [{Distress signalling devices, e.g. rescue balloons \(vehicle optical signalling for indicating emergencies B60Q 1/52; balloons in general B64B 1/40\)}](#)
- G08B 5/004
 - [{Reflective safety signalling devices attached on persons}](#)
- G08B 5/006
 - [{Portable traffic signalling devices \(G08B 5/004 takes precedence; emergency signalling devices to be placed on roads or vehicles B60Q 7/00\)}](#)
- G08B 5/008
 - [{Traffic signalling mirrors}](#)
- G08B 5/02
 - using only mechanical transmission
- G08B 5/06
 - using hydraulic transmission; using pneumatic transmission
- G08B 5/14
 - • with indicator element moving about a pivot, e.g. hinged flap, rotating vane
- G08B 5/16
 - • • with reset means necessitating a separate operation to return the indicator element
- G08B 5/18
 - • with indicator element moving rectilinearly
- G08B 5/20
 - • • with reset means necessitating a separate operation to return the indicator element
- G08B 5/22
 - using electric transmission; using electro-magnetic transmission
- G08B 5/221
 - • [{Local indication of seats occupied in a facility, e.g. in a theatre}](#)

- G08B 5/222 . . {Personal calling arrangements or devices, i.e. paging systems (selective calling systems and call receivers [H04W 84/00](#), [H04W 84/00](#), [H04W 68/00](#))}
- G08B 5/223 . . . {using wireless transmission}
- G08B 5/224 {Paging receivers with visible signalling details}
- G08B 5/225 {Display details}
- G08B 5/226 {with alphanumeric or graphic display means}
- G08B 5/227 {with call or message storage means}
- G08B 5/228 {combined with other devices having a different main function, e.g. watches}
- G08B 5/229 {with other provisions not elsewhere provided for}
- G08B 5/24 . . with indicator element moving about a pivot, e.g. hinged flap, rotating vane {(signalling devices for telephones [H04M 19/04](#); telecontrolling indicating devices, e.g. hinged flap, [G08C 19/30](#); signalling systems for auctioneering devices [H04L 12/1804](#))}
- G08B 5/26 . . . with reset means necessitating a separate operation to return the indicator element
- G08B 5/28 . . . with hinged flap or arm
- G08B 5/30 . . . with rotating or oscillating members, e.g. vanes
- G08B 5/32 . . with indicator element moving rectilinearly
- G08B 5/34 . . . with reset means necessitating a separate operation to return the indicator element
- G08B 5/36 . . using visible light sources
- G08B 5/38 . . . using flashing light {(circuit arrangements for flashing lamps [H05B 41/30](#), [H05B 39/09](#); arrangements on vehicles [B60Q 1/34](#), [B60Q 1/46](#))}
- G08B 5/40 . using smoke, fire or coloured gases (sky-writing [G09F 21/16](#) {missiles, e.g. of tracer, illuminating, signal or smoke producing type [F42B](#); chemical compositions therefor [C06B](#); smoke producers for aircraft [B64D 1/16](#) to [B64D 1/20](#); for personal calling arrangements see provisionally [G08B 3/1008](#), [G08B 3/1016](#)})

- G08B 6/00** **Tactile signalling systems, e.g. personal calling systems** (indication of time by feeling [G04B 25/02](#); deaf-aid sets [H04R 25/00](#)) {(apparatus for generating mechanical vibrations [B06B 1/045](#); motors converting reciprocating into rotary movement or vice-versa [H02K 7/06](#); motors with reciprocating, oscillating, or vibrating magnet, armature, or coil system [H02K 33/00](#); telephone hand set vibration alarms [H04M 19/047](#))}

- G08B 7/00** **Signalling systems according to more than one of groups [G08B 3/00](#) to [G08B 6/00](#)** (combinations of display arrangements with audible advertising [G09F 27/00](#)); **Personal calling systems according to more than one of groups [G08B 3/00](#) to [G08B 6/00](#)** {(combinations of display devices with advertising [G09F](#))}
- G08B 7/02 . using mechanical transmission
- G08B 7/04 . using hydraulic transmission; using pneumatic transmission
- G08B 7/06 . using electric transmission {e.g. involving audible and visible signalling through the use of sound and light sources (walking aids for blind persons [A61H 3/06](#); facilitating escape from buildings [A62B 3/00](#))}

- G08B 7/062
 - • {indicating emergency exits (signs, boards or panels illuminated from behind, indicating exit way or orientation [G09F 2013/0459](#))}
- G08B 7/064
 - • {indicating houses needing emergency help, e.g. with a flashing light or sound}
- G08B 7/066
 - • {guiding along a path, e.g. evacuation path lighting strip}
- G08B 7/068
 - • {calling personnel in a restaurant, e.g. waiter call}
- G08B 7/08
 - using explosives

- G08B 9/00**

Order telegraph apparatus, i.e. means for transmitting one of a finite number of different orders at the discretion of the user, e.g. bridge to engine room orders in ships ([signalling devices in mines E21F 17/18](#))
- G08B 9/02
 - Details
- G08B 9/04
 - • Means for recording operation of the apparatus
- G08B 9/06
 - • Means for indicating disagreement between orders given and those carried out
- G08B 9/08
 - mechanical
- G08B 9/10
 - • using ratchet {(see provisionally [G08B 9/08](#))}
- G08B 9/12
 - • using rotary shaft {(see provisionally [G08B 9/08](#))}
- G08B 9/14
 - hydraulic; pneumatic
- G08B 9/16
 - • using ratchet {(see provisionally [G08B 9/14](#))}
- G08B 9/18
 - • by varying displacement of the fluid {(see provisionally [G08B 9/14](#))}
- G08B 9/20
 - • by varying pressure of the fluid {(see provisionally [G08B 9/14](#))}

- G08B 13/00**

Burglar, theft, or intruder alarms ([vehicle theft alarms B60R 25/10](#); [cycle theft alarms B62H 5/00](#)) {(fire or police telegraphic systems [G08B 25/00](#), [G08B 26/00](#), [H04M 11/04](#))}
- G08B 13/02
 - Mechanical actuation
- G08B 13/04
 - • by breaking of glass
- G08B 13/06
 - • by tampering with fastening ([alarm locks E05B 45/00](#); [alarm devices on safes E05G 1/10](#)) {(anti-theft means in containers [B65D 2211/00](#))}
- G08B 13/08
 - • by opening, e.g. of door, of window, of drawer, of shutter, of curtain, of blind {(alarm locks [E05B 45/00](#); electrical switches operated by opening or closing of a door [H01H 13/18](#))}
- G08B 13/10
 - • by pressure on floors, floor coverings, stair treads, counters, or tills {(contact cables, contact carpets [H01B 7/10](#); electrical switches operated by change of a non-electrical or thermal condition [H01H 9/00](#); treadles for traffic control [G08G 1/02](#))}
- G08B 13/12
 - • by the breaking or disturbance of stretched cords or wires
- G08B 13/122
 - • • {for a perimeter fence (features peculiar to electrified fences [A01K 3/00](#); fences per se [E04H 17/00](#))}
- G08B 13/124
 - • • • {with the breaking or disturbance being optically detected, e.g. optical fibers in the perimeter fence}
- G08B 13/126
 - • • {for a housing, e.g. a box, a safe, a room (anti-theft means in containers [B65D 2211/00](#))}

- G08B 13/128 {the housing being an electronic circuit unit, e.g. memory or CPU chip (protecting computer components in secure or tamper resistant housings [G06F 21/86](#); protecting computer input devices, e.g. keyboards [G06F 21/83](#))}
 - G08B 13/14 . . by lifting or attempted removal of hand-portable articles {(devices to prevent theft or loss of purses, luggage or hand carried bags [A45C 13/18](#))}
 - G08B 13/1409 . . . {for removal detection of electrical appliances by detecting their physical disconnection from an electrical system, e.g. using a switch incorporated in the plug connector}
 - G08B 13/1418 {Removal detected by failure in electrical connection between the appliance and a control centre, home control panel or a power supply}
 - G08B 13/1427 . . . {with transmitter-receiver for distance detection}
- NOTE**
- Details thereof are further classified in the subgroups of [G08B 21/0202](#)
- G08B 13/1436 . . . {with motion detection}
 - G08B 13/1445 . . . {with detection of interference with a cable tethering an article, e.g. alarm activated by detecting detachment of article, breaking or stretching of cable (furniture, e.g. shelves for displaying merchandise, incorporating tethers to prevent theft [A47F 7/024](#), [A47F 5/0861](#))}
 - G08B 13/1454 {Circuit arrangements thereof}
 - G08B 13/1463 {Physical arrangements, e.g. housings (devices to prevent theft or loss of purses, luggage or hand carried bags [A45C 13/18](#))}
 - G08B 13/1472 . . . {with force or weight detection}
 - G08B 13/1481 . . . {with optical detection}
 - G08B 13/149 . . . {with electric, magnetic, capacitive switch actuation}
 - G08B 13/16 . . Actuation by interference with mechanical vibrations in air or other fluid
 - G08B 13/1609 . . {using active vibration detection systems (active detection systems per se [G01S](#))}
 - G08B 13/1618 . . . {using ultrasonic detection means}
 - G08B 13/1627 {using Doppler shift detection circuits}
 - G08B 13/1636 {using pulse-type detection circuits}
 - G08B 13/1645 . . . {using ultrasonic detection means and other detection means, e.g. microwave or infra-red radiation}
 - G08B 13/1654 . . {using passive vibration detection systems}
 - G08B 13/1663 . . . {using seismic sensing means}
 - G08B 13/1672 . . . {using sonic detecting means, e.g. a microphone operating in the audio frequency range}
 - G08B 13/1681 . . . {using infrasonic detecting means, e.g. a microphone operating below the audible frequency range}
 - G08B 13/169 . . . {using cable transducer means}
 - G08B 13/18 . . Actuation by interference with heat, light or radiation of shorter wavelength; Actuation by intruding sources of heat, light or radiation of shorter wavelength {(signalling devices using photo-electric devices in general [G09F](#))}
 - G08B 13/181 . . using active radiation detection systems

- G08B 13/183 . . . by interruption of a radiation beam or barrier ([light barriers G01V 8/10](#))
{([industrial safety devices with photocells F16P 3/14](#))}
- G08B 13/184 using radiation reflectors
- G08B 13/186 using light guides, e.g. optical fibres
- G08B 13/187 . . . by interference of a radiation field
- G08B 13/189 . . using passive radiation detection systems
- G08B 13/1895 . . . {[using light change detection systems \(G08B 13/194 takes precedence\)](#)}
- G08B 13/19 . . . using infra-red radiation detection systems {(G08B 13/194 takes precedence; lighting devices activated by motion detection [F21V 23/0442](#); radiation pyrometry per se [G01J 5/00](#); controlling circuits for electric light sources activated by motion detection [H05B 37/0227](#))}
- G08B 13/191 using pyroelectric sensor means
- G08B 13/193 using focusing means
- G08B 13/194 . . . using image scanning and comparing systems
- G08B 13/196 using television cameras {(recognition of scenes under surveillance [G06K 9/00771](#); image analysis per se [G06T 7/00](#); television cameras [H04N 5/225](#); CCTV systems [H04N 7/18](#))}
- G08B 13/19602 {Image analysis to detect motion of the intruder, e.g. by frame subtraction}
- G08B 13/19604 {involving reference image or background adaptation with time to compensate for changing conditions, e.g. reference image update on detection of light level change}
- G08B 13/19606 {Discriminating between target movement or movement in an area of interest and other non-signicative movements, e.g. target movements induced by camera shake or movements of pets, falling leaves, rotating fan}
- G08B 13/19608 {Tracking movement of a target, e.g. by detecting an object predefined as a target, using target direction and or velocity to predict its new position ([analysis of motion by image processing per se G06T 7/20](#))}
- G08B 13/1961 {Movement detection not involving frame subtraction, e.g. motion detection on the basis of luminance changes in the image}
- G08B 13/19613 {Recognition of a predetermined image pattern or behaviour pattern indicating theft or intrusion}
- G08B 13/19615 {wherein said pattern is defined by the user}
- G08B 13/19617 {Surveillance camera constructional details}
- G08B 13/19619 {Details of casing}
- G08B 13/19621 {Portable camera}
- G08B 13/19623 {Arrangements allowing camera linear motion, e.g. camera moving along a rail cable or track}
- G08B 13/19626 {optical details, e.g. lenses, mirrors, multiple lenses ([G08B 13/19628 takes precedence](#))}
- G08B 13/19628 {of wide angled cameras and camera groups, e.g. omni-directional cameras, fish eye, single units having multiple cameras achieving a wide angle view}

G08B 13/1963	. . . . .	{Arrangements allowing camera rotation to change view, e.g. pivoting camera, pan-tilt and zoom [PTZ]}
G08B 13/19632	. . . . .	{Camera support structures, e.g. attachment means, poles}
G08B 13/19634	. . . . .	{Electrical details of the system, e.g. component blocks for carrying out specific functions}
G08B 13/19636	. . . . .	{pertaining to the camera}
G08B 13/19639	. . . . .	{Details of the system layout}
G08B 13/19641	. . . . .	{Multiple cameras having overlapping views on a single scene}
G08B 13/19643	. . . . .	{wherein the cameras play different roles, e.g. different resolution, different camera type, master-slave camera}
G08B 13/19645	. . . . .	{Multiple cameras, each having view on one of a plurality of scenes, e.g. multiple cameras for multi-room surveillance or for tracking an object by view hand-over}
G08B 13/19647	. . . . .	{Systems specially adapted for intrusion detection in or around a vehicle}
G08B 13/1965	. . . . .	{the vehicle being an aircraft}
G08B 13/19652	. . . . .	{Systems using zones in a single scene defined for different treatment, e.g. outer zone gives pre-alarm, inner zone gives alarm}
G08B 13/19654	. . . . .	{Details concerning communication with a camera}
G08B 13/19656	. . . . .	{Network used to communicate with a camera, e.g. WAN, LAN, Internet}
G08B 13/19658	. . . . .	{Telephone systems used to communicate with a camera, e.g. PSTN, GSM, POTS}
G08B 13/1966	. . . . .	{Wireless systems, other than telephone systems, used to communicate with a camera}
G08B 13/19663	. . . . .	{Surveillance related processing done local to the camera}
G08B 13/19665	. . . . .	{Details related to the storage of video surveillance data (television signal recording H04N 5/76)}
G08B 13/19667	. . . . .	{Details realated to data compression, encryption or encoding, e.g. resolution modes for reducing data volume to lower transmission bandwidth or memory requirements}
G08B 13/19669	. . . . .	{Event triggers storage or change of storage policy}
G08B 13/19671	. . . . .	{Addition of non-video data, i.e. metadata, to video stream}
G08B 13/19673	. . . . .	{Addition of time stamp, i.e. time metadata, to video stream}
G08B 13/19676	. . . . .	{Temporary storage, e.g. cyclic memory, buffer storage on pre-alarm}
G08B 13/19678	. . . . .	{User interface}
G08B 13/1968	. . . . .	{Interfaces for setting up or customising the system}
G08B 13/19682	. . . . .	{Graphic User Interface [GUI] presenting system data to the user, e.g. information on a screen helping a user interacting with an alarm system}
G08B 13/19684	. . . . .	{Portable terminal, e.g. mobile phone, used for viewing video remotely}

G08B 13/19686	. . . . .	{Interfaces masking personal details for privacy, e.g. blurring faces, vehicle license plates}
G08B 13/19689	. . . . .	{Remote control of cameras, e.g. remote orientation or image zooming control for a PTZ camera}
G08B 13/19691	. . . . .	{Signalling events for better perception by user, e.g. indicating alarms by making display brighter, adding text, creating a sound}
G08B 13/19693	. . . . .	{using multiple video sources viewed on a single or compound screen}
G08B 13/19695	. . . . .	{Arrangements wherein non-video detectors start video recording or forwarding but do not generate an alarm themselves}
G08B 13/19697	. . . . .	{Arrangements wherein non-video detectors generate an alarm themselves}
G08B 13/20	. . . . .	Actuation by change of fluid pressure
G08B 13/22	. . . . .	Electrical actuation {(G08B 13/2494 takes precedence)}
G08B 13/24	. . . . .	by interference with electromagnetic field distribution {(signals actuated by trains B61L ; metal detectors using induction coils G01V 3/10 ; metal detectors combined with record carrier readers G06K 7/085)}
G08B 13/2402	. . . . .	{Electronic Article Surveillance [EAS], i.e. systems using tags for detecting removal of a tagged item from a secure area, e.g. tags for detecting shoplifting (mechanical aspects of the tags, e.g. related to locking E05B 73/0017 ; RFID readers G06K 7/00 ; RFID tags G06K 19/00 ; access control systems G07C 9/00 ; anti-theft control in point of sale systems G07G 3/003 ; security seals G09F 3/03)}
G08B 13/2405	. . . . .	{characterised by the tag technology used}
G08B 13/2408	. . . . .	{using ferromagnetic tags}
G08B 13/2411	. . . . .	{Tag deactivation}
G08B 13/2414	. . . . .	{using inductive tags}
G08B 13/2417	. . . . .	{having a radio frequency identification chip (radio frequency identification tags per se G06K 19/00 ; inventory or logistics in general G06Q 10/00)}
G08B 13/242	. . . . .	{Tag deactivation}
G08B 13/2422	. . . . .	{using acoustic or microwave tags}
G08B 13/2425	. . . . .	{Tag deactivation}
G08B 13/2428	. . . . .	{Tag details}
G08B 13/2431	. . . . .	{Tag circuit details}
G08B 13/2434	. . . . .	{Tag housing and attachment details (transponders in containers B65D 2203/10 ; anti-theft means in containers B65D 2211/00)}
G08B 13/2437	. . . . .	{Tag layered structure, processes for making layered tags}
G08B 13/244	. . . . .	{Tag manufacturing, e.g. continuous manufacturing processes}
G08B 13/2442	. . . . .	{Tag materials and material properties thereof, e.g. magnetic material details}
G08B 13/2445	. . . . .	{Tag integrated into item to be protected, e.g. source tagging (anti-theft means in containers B65D 2211/00)}

- G08B 13/2448 {Tag with at least dual detection means, e.g. combined inductive and ferromagnetic tags, dual frequencies within a single technology, tampering detection or signalling means on the tag}
- G08B 13/2451 {Specific applications combined with EAS}
- G08B 13/2454 {Checking of authorisation of a person accessing tagged items in an EAS system}
- G08B 13/2457 {Lending systems using EAS tags wherein the tags are reusable, e.g. they can be activated and deactivated more than once, e.g. for a library}
- G08B 13/246 {Check out systems combined with EAS, e.g. price information stored on EAS tag (anti-theft systems in point of sale systems [G07G 3/003](#))}
- G08B 13/2462 {Asset location systems combined with EAS (inventory, tracking, logistic [G06Q 10/00](#); entrance control systems [G07C 9/00](#))}
- G08B 13/2465 {Aspects related to the EAS system, e.g. system components other than tags}
- G08B 13/2468 {Antenna in system and the related signal processing}
- G08B 13/2471 {Antenna signal processing by receiver or emitter}
- G08B 13/2474 {Antenna or antenna activator geometry, arrangement or layout (loop antennae [H01Q 1/22](#))}
- G08B 13/2477 {Antenna or antenna activator circuit}
- G08B 13/248 {EAS system combined with another detection technology, e.g. dual EAS and video or other presence detection system}
- G08B 13/2482 {EAS methods, e.g. description of flow chart of the detection procedure}
- G08B 13/2485 {Simultaneous detection of multiple EAS tags}
- G08B 13/2488 {Timing issues, e.g. synchronising measures to avoid signal collision, with multiple emitters or a single emitter and receiver}
- G08B 13/2491 . . . {Intrusion detection systems, i.e. where the body of an intruder causes the interference with the electromagnetic field}
- G08B 13/2494 {by interference with electro-magnetic field distribution combined with other electrical sensor means, e.g. microwave detectors combined with other sensor means}
- G08B 13/2497 {using transmission lines, e.g. cable}
- G08B 13/26 . . by proximity of an intruder causing variation in capacitance or inductance of a circuit

- G08B 15/00** **Identifying, scaring or incapacitating burglars, thieves, or intruders, e.g. by explosives (burglar traps or the like, on safes [E05G 5/02](#); {devices to prevent loss of bags, trunks or travelling baskets by producing sound, piercing, gas-discharging or the like [A45C 13/24](#); alarm locks [E05B 45/00](#), e.g. with detonating alarm [E05B 45/04](#)})**
- G08B 15/001 . {Concealed systems, e.g. disguised alarm systems to make covert systems}
- G08B 15/002 . {with occupancy simulation}
- G08B 15/004 . {using portable personal devices (hand-held or body-worn self-defence devices using repellent gases or chemicals [F41H 9/10](#))}
- G08B 15/005 . {by electric shock}

- G08B 15/007 . {by trapping}
- G08B 15/008 . {by simulating the existence of a security system, e.g. a mock video camera to scare thieves}
- G08B 15/02 . with smoke, gas, or coloured or odorous powder or liquid
- G08B 17/00** **Fire alarms; Alarms responsive to explosion** (temperature-responsive elements [G01K](#); {automatic fire-extinguishing and alarm devices [A62C 35/00](#), [A62C 37/00](#); structural combination of lighting devices with smoke detectors [F21V 33/0076](#); arrangement of safety devices on stoves [F24C 7/08](#)})
- G08B 17/005 . {for forest fires, e.g. detecting fires spread over a large or outdoors area (fire fighting forest fires [A62C 3/02](#))}
- G08B 17/02 . Mechanical actuation of the alarm, e.g. by the breaking of a wire
- G08B 17/04 . Hydraulic or pneumatic actuation of the alarm, e.g. by change of fluid pressure
- G08B 17/06 . Electric actuation of the alarm, e.g. using a thermally-operated switch (thermally-operated electric switches per se [H01H 37/00](#))
- G08B 17/08 . Actuation involving the use of explosive means
- G08B 17/10 . Actuation by presence of smoke or gases {automatic alarm devices for analysing flowing fluid materials by the use of optical means (turbidimetric analysis of gases, e.g. of smoke [G01N 21/534](#))}
- G08B 17/103 . . using a light-emitting and receiving device
- G08B 17/107 . . . for detecting light-scattering due to smoke
- G08B 17/11 . . using an ionisation chamber for detecting smoke or gas (vacuum gauges making use of ionisation effects [G01L 21/30](#); gas analysis by investigating the ionisation [G01N 27/62](#))
- G08B 17/113 . . . Constructional details (discharge tubes for measuring pressure of introduced gas, or for detecting presence of gas, in general [H01J 41/02](#))
- G08B 17/117 . . by using a detection device for specific gases, e.g. combustion products, produced by the fire ([G08B 17/103](#), [G08B 17/11](#) take precedence; investigating or analysing gases in general [G01N](#), e.g. by using electric means [G01N 27/00](#); {particle spectrometers per se [H01J 49/00](#)})
- G08B 17/12 . Actuation by presence of radiation or particles, e.g. of infra-red radiation, of ions {(alarm or controlling circuits using ionisation chamber, proportional counters or Geiger-Müller tubes also functioning as u-v detectors [G01T 7/125](#); flame detection in burners [F23N 5/00](#))}
- G08B 17/125 . . {by using a video camera to detect fire or smoke}
- G08B 19/00** **Alarms responsive to two or more different undesired or abnormal conditions, e.g. burglary and fire, abnormal temperature and abnormal rate of flow**
- G08B 19/005 . {combined burglary and fire alarm systems}
- G08B 19/02 . Alarm responsive to formation or anticipated formation of ice {(indicating weather conditions [G01W 1/00](#))}
- G08B 21/00** **Alarms responsive to a single specified undesired or abnormal operating condition and not elsewhere provided for** {(alarms on gas pipes [F17D 3/01](#))}
- G08B 21/02 . Alarms for ensuring the safety of persons
- G08B 21/0202 . . {Child monitoring systems using a transmitter-receiver system carried by the parent and the child}

G08B 21/0205	. . .	{Specific application combined with child monitoring using a transmitter-receiver system}
G08B 21/0208	. . . .	{Combination with audio or video communication, e.g. combination with "baby phone" function}
G08B 21/0211	. . . .	{Combination with medical sensor, e.g. for measuring heart rate, temperature}
G08B 21/0213	. . . .	{System disabling if a separation threshold is exceeded (disabling electrical appliances in case of unplugging G08B 13/1409)}
G08B 21/0216	. . .	{Alarm cancellation after generation}
G08B 21/0219	. . .	{Circuit arrangements}
G08B 21/0222	. . .	{Message structure or message content, e.g. message protocol}
G08B 21/0225	. . .	{Monitoring making use of different thresholds, e.g. for different alarm levels}
G08B 21/0227	. . .	{System arrangements with a plurality of child units}
G08B 21/023	. . .	{Power management, e.g. system sleep and wake up provisions}
G08B 21/0233	. . .	{System arrangements with pre-alarms, e.g. when a first distance is exceeded}
G08B 21/0236	. . .	{Threshold setting}
G08B 21/0238	. . .	{adding new units to the system}
G08B 21/0241	. . .	{Data exchange details, e.g. data protocol}
G08B 21/0244	. . . .	{System arrangements wherein the alarm criteria uses signal delay or phase shift}
G08B 21/0247	. . . .	{System arrangements wherein the alarm criteria uses signal strength}
G08B 21/025	. . . .	{System arrangements wherein the alarm criteria uses absence of reply signal after an elapsed time}
G08B 21/0252	. . . .	{System arrangements wherein the child unit emits, i.e. the child unit incorporates the emitter}
G08B 21/0255	. . . .	{System arrangements wherein the parent unit emits, i.e. the parent unit incorporates the emitter}
G08B 21/0258	. . . .	{System arrangements wherein both parent and child units can emit and receive}
G08B 21/0261	. . .	{System arrangements wherein the object is to detect trespassing over a fixed physical boundary, e.g. the end of a garden}
G08B 21/0263	. . .	{System arrangements wherein the object is to detect the direction in which child or item is located}
G08B 21/0266	. . .	{System arrangements wherein the object is to detect the exact distance between parent and child or surveyor and item}
G08B 21/0269	. . .	{System arrangements wherein the object is to detect the exact location of child or item using a navigation satellite system, e.g. GPS}
G08B 21/0272	. . .	{System arrangements wherein the object is to detect exact location of child or item using triangulation other than GPS}
G08B 21/0275	. . .	{Electronic Article Surveillance [EAS] tag technology used for parent or child unit, e.g. same transmission technology, magnetic tag, RF tag, RFID}

G08B 21/0277	. . . {Communication between units on a local network, e.g. Bluetooth, piconet, zigbee, Wireless Personal Area Networks [WPAN]}
G08B 21/028	. . . {Communication between parent and child units via remote transmission means, e.g. satellite network}
G08B 21/0283	. . . . {via a telephone network, e.g. cellular GSM}
G08B 21/0286	. . . {Tampering or removal detection of the child unit from child or article.}
G08B 21/0288	. . . {Attachment of child unit to child/article}
G08B 21/0291	. . . {Housing and user interface of child unit}
G08B 21/0294	. . . {Display details on parent unit}
G08B 21/0297	. . {Robbery alarms, e.g. hold-up alarms, bag snatching alarms}
G08B 21/04	. . responsive to non-activity, e.g. of elderly persons (G08B 21/06 takes precedence)
G08B 21/0407	. . . {based on behaviour analysis}
G08B 21/0415	. . . . {detecting absence of activity per se}
G08B 21/0423	. . . . {detecting deviation from an expected pattern of behaviour or schedule}
G08B 21/043	. . . . {detecting an emergency event, e.g. a fall}
G08B 21/0438	. . . {Sensor means for detecting}
G08B 21/0446	. . . . {worn on the body to detect changes of posture, e.g. a fall, inclination, acceleration, gait}
G08B 21/0453	. . . . {worn on the body to detect health condition by physiological monitoring, e.g. electrocardiogram, temperature, breathing (detecting, measuring or recording for diagnostic purposes A61B 5/00)}
G08B 21/0461	. . . . {integrated or attached to an item closely associated with the person but not worn by the person, e.g. chair, walking stick, bed sensor}
G08B 21/0469	. . . . {Presence detectors to detect unsafe condition, e.g. infrared sensor, microphone (G08B 21/0476 takes precedence)}
G08B 21/0476	. . . . {Cameras to detect unsafe condition, e.g. video cameras}
G08B 21/0484	. . . . {Arrangements monitoring consumption of a utility or use of an appliance which consumes a utility to detect unsafe condition, e.g. metering of water, gas or electricity, use of taps, toilet flush, gas stove or electric kettle.}
G08B 21/0492	. . . . {Sensor dual technology, i.e. two or more technologies collaborate to extract unsafe condition, e.g. video tracking and RFID tracking}
G08B 21/06	. . indicating a condition of sleep, e.g. anti-dozing alarms (safety devices for propulsion-unit control of vehicles responsive to incapacity of driver B60K 28/06 ; psychotechnic analysis of vehicle drivers A61B 5/18)
G08B 21/08	. . responsive to the presence of persons in a body of water, e.g. a swimming pool; responsive to an abnormal condition of a body of water
G08B 21/082	. . . {by monitoring electrical characteristics of the water}
G08B 21/084	. . . {by monitoring physical movement characteristics of the water}
G08B 21/086	. . . {by monitoring a perimeter outside the body of the water}
G08B 21/088	. . . {by monitoring a device worn by the person, e.g. a bracelet attached to the swimmer}

- G08B 21/10
 - responsive to calamitous events, e.g. tornados, earthquakes ([seismology G01V 1/00](#); [indicating weather conditions G01W 1/00](#))
- G08B 21/12
 - responsive to undesired emission of substances, e.g. pollution alarms
- G08B 21/14
 - Toxic gas alarms ([G08B 21/16](#) takes precedence)
- G08B 21/16
 - Combustible gas alarms
- G08B 21/18
 - Status alarms ([G08B 21/02](#) takes precedence)
- G08B 21/182
 - {Level alarms, e.g. alarms responsive to variables exceeding a threshold}
- G08B 21/185
 - {Electrical failure alarms}
- G08B 21/187
 - {Machine fault alarms}
- G08B 21/20
 - responsive to moisture
- G08B 21/22
 - responsive to presence or absence of persons
- G08B 21/24
 - Reminder alarms, e.g. anti-loss alarms ([devices to prevent loss of bags or the like A45C 13/24](#))
- G08B 21/245
 - {Reminder of hygiene compliance policies, e.g. of washing hands ([Measuring quality of medical staff, G06F 19/327](#))}

G08B 23/00 Alarms responsive to unspecified undesired or abnormal conditions

G08B 25/00 Alarm systems in which the location of the alarm condition is signalled to a central station, e.g. fire or police telegraphic systems {(signalling systems in general G08C)}

- G08B 25/001
 - {Alarm cancelling procedures or alarm forwarding decisions, e.g. based on absence of alarm confirmation}
- G08B 25/002
 - {Generating a prealarm to the central station}
- G08B 25/003
 - {Address allocation methods and details}
- G08B 25/004
 - {Alarm propagated along alternative communication path or using alternative communication medium according to a hierarchy of available ways to communicate, e.g. if Wi-Fi not available use GSM}
- G08B 25/005
 - {Alarm destination chosen according to a hierarchy of available destinations, e.g. if hospital does not answer send to police station}
- G08B 25/006
 - {Alarm destination chosen according to type of event, e.g. in case of fire phone the fire service, in case of medical emergency phone the ambulance}
- G08B 25/007
 - {Details of data content structure of message packets; data protocols}
- G08B 25/008
 - {Alarm setting and unsetting, i.e. arming or disarming of the security system}
- G08B 25/009
 - {Signalling of the alarm condition to a substation whose identity is signalled to a central station, e.g. relaying alarm signals in order to extend communication range}
- G08B 25/01
 - characterised by the transmission medium
- G08B 25/012
 - {using recorded signals, e.g. speech ([G08B 25/08](#) takes precedence)}
- G08B 25/014
 - {Alarm signalling to a central station with two-way communication, e.g. with signalling back}
- G08B 25/016
 - {Personal emergency signalling and security systems ([emergency non-personal manually actuated alarm activators G08B 25/12](#))}
- G08B 25/018
 - {Sensor coding by detecting magnitude of an electrical parameter, e.g. resistance}

- G08B 25/04
 - . using a single signalling line, e.g. in a closed loop
- G08B 25/045
 - . . {with sensing devices and central station in a closed loop, e.g. McCullough loop}
- G08B 25/06
 - . using power transmission lines (systems in general for transmission of information via power distribution lines [H04B 3/54](#))
- G08B 25/08
 - . using communication transmission lines, {e.g. complete alarm systems using telephone lines for transmission of the alarm} (telephone communication systems combined with alarm systems [H04M 11/04](#)) {([G08B 13/19658](#), [G08B 21/0286](#), [G08B 25/016](#) take precedence)}
- G08B 25/085
 - . . {using central distribution transmission lines}
- G08B 25/10
 - . using wireless transmission systems {([G08B 25/009](#) takes precedence)}
- G08B 25/12
 - Manually actuated calamity alarm transmitting arrangements {emergency non-personal manually actuated alarm, activators, e.g. details of alarm push buttons mounted on an infrastructure}
- G08B 25/14
 - Central alarm receiver or annunciator arrangements
- G08B 26/00**

Alarm systems in which substations are interrogated in succession by a central station
- G08B 26/001
 - {with individual interrogation of substations connected in parallel}
- G08B 26/002
 - . {only replying the state of the sensor}
- G08B 26/003
 - . {replying the identity and the state of the sensor}
- G08B 26/004
 - {with common interrogation of substations}
- G08B 26/005
 - {with substations connected in series, e.g. cascade}
- G08B 26/006
 - {with substations connected to an individual line, e.g. star configuration}
- G08B 26/007
 - {Wireless interrogation}
- G08B 26/008
 - {central annunciator means of the sensed conditions, e.g. displaying or registering}
- G08B 27/00**

Alarm systems in which the alarm condition is signalled from a central station to a plurality of substations {(signalling systems in general [G08C](#))}
- G08B 27/001
 - {Signalling to an emergency team, e.g. firemen}
- G08B 27/003
 - {Signalling to neighbouring houses}
- G08B 27/005
 - {with transmission via computer network}
- G08B 27/006
 - {with transmission via telephone network}
- G08B 27/008
 - {with transmission via TV or radio broadcast}
- G08B 29/00**

Checking or monitoring of signalling or alarm systems; Prevention or correction of operating errors, e.g. preventing unauthorised operation {(arrangements for testing electric properties, arrangements for locating electric faults [G01R 31/00](#))}
- G08B 29/02
 - Monitoring continuously signalling or alarm systems
- G08B 29/04
 - . Monitoring of the detection circuits
- G08B 29/043
 - . . {of fire detection circuits}
- G08B 29/046
 - . . {prevention of tampering with detection circuits}

G08B 29/06	<ul style="list-style-type: none"> Monitoring of the line circuits, e.g. signalling of line faults (testing or locating faults in cables or lines in general G01R 31/02, G01R 31/08)
G08B 29/08	<ul style="list-style-type: none"> Signalling of tampering with the line circuit
G08B 29/10	<ul style="list-style-type: none"> Monitoring of the annunciator circuits
G08B 29/12	<ul style="list-style-type: none"> Checking intermittently signalling or alarm systems
G08B 29/123	<ul style="list-style-type: none"> {of line circuits (testing or locating faults in cables or lines in general G01R 31/021, G01R 31/024, G01R 31/08)}
G08B 29/126	<ul style="list-style-type: none"> {of annunciator circuits}
G08B 29/14	<ul style="list-style-type: none"> checking the detection circuits
G08B 29/145	<ul style="list-style-type: none"> {of fire detection circuits}
G08B 29/16	<ul style="list-style-type: none"> Security signalling or alarm systems, e.g. redundant systems
G08B 29/18	<ul style="list-style-type: none"> Prevention or correction of operating errors (G08B 29/02, G08B 29/12 take precedence)
G08B 29/181	<ul style="list-style-type: none"> {due to failing power supply}
G08B 29/183	<ul style="list-style-type: none"> {Single detectors using dual technologies (G08B 13/1672, G08B 13/2448, G08B 13/2494 take precedence)}
G08B 29/185	<ul style="list-style-type: none"> {Signal analysis techniques for reducing or preventing false alarms or for enhancing the reliability of the system}
G08B 29/186	<ul style="list-style-type: none"> {Fuzzy logic; neural networks}
G08B 29/188	<ul style="list-style-type: none"> {Data fusion; cooperative systems, e.g. voting among different detectors}
G08B 29/20	<ul style="list-style-type: none"> Calibration, including self-calibrating arrangements
G08B 29/22	<ul style="list-style-type: none"> Provisions facilitating manual calibration, e.g. input or output provisions for testing; Holding of intermittent values to permit measurement
G08B 29/24	<ul style="list-style-type: none"> Self-calibration, e.g. compensating for environmental drift or ageing of components
G08B 29/26	<ul style="list-style-type: none"> by updating and storing reference thresholds
G08B 29/28	<ul style="list-style-type: none"> by changing the gain of an amplifier
G08B 31/00	Predictive alarm systems characterised by extrapolation or other computation using updated historic data