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(54) Alert system for a premises

(57) The invention relates to the provision of an alert system as part of a function of broadcast data receiving apparatus of the type provided for the reception and processing of data which is transmitted from a remote location to generate video and/or audio, typically via a television set. The invention utilises the receiver and a communications link such as a telecommunications line to allow the user to generate an alert via a remote control device which emits a signal received by the receiver and then transmit an alert signal to a remote location. In one embodiment a network of remote control signal receivers can be provided throughout a premises.

EP 1 094 427 A2

Description

[0001] The invention to which this application relates is an alert system which is typically, although not necessarily exclusively, provided as a function of broadcast data receiving apparatus of the type provided for the reception of data which is transmitted from a remote location. In particular the receiver is provided for use in a premises in conjunction with an antenna, aerial or cable connected thereto which allows the reception of data from a remote location such as a television broadcaster. The receiver apparatus is provided to allow for the reception, decoding and subsequent generation of video display and /or audio typically via a television set which the receiver apparatus can be connected to or may be part of.

[0002] The use of receiver apparatus of this type is becoming increasingly prevalent as the use of digital data transmission systems and apparatus becomes more commonplace. A further common feature of the receiver apparatus is a telecommunications link which allows data to be transmitted from the receiver to a remote location and also the receipt of incoming telephone, fax and/or e-mail communications as well as access to the internet. The telecommunications link can also be used to allow software in the receiver to be updated or otherwise amended and/or functions of the receiver to be activated or deactivated.

[0003] The present invention addresses an important area of concern in many premises where the receiver apparatus is located. This area of concern is the security and safety of the residents of the premises and is particularly the case if the persons are infirm and/or elderly.

[0004] At the present time, many elderly persons or infirm persons live in sheltered accommodation or houses which include an emergency alert system. This system typically comprises an actuation means such as a wall mounted button. When this button is activated, a signal is sent via a telephone connection from the premises to a warden for the area or to a centralised monitoring station. Another use of security alert systems of this type can be for young children and on occasion, such as in hospitals there is the provision of a security tag which is worn by the child. This tag ensures that if the child strays outwith a given area then the tag triggers a security alert which may be or include the sounding of an alarm at the base station or the sending of an alert to a centralised monitoring station.

[0005] A problem with these conventional alert systems is that they require additional apparatus and equipment to be purchased and installed in premises and this level of expense and inconvenience to the premises occupiers can, on occasion, lead to inferior systems being chosen or in many instances no system being installed at all.

[0006] The aim of the present invention is to provide an alert system which is effective in the premises and which can be provided in a manner such that the introduction and installation of the same can be improved and inconvenience reduced.

[0007] In a first aspect of the invention there is provided an alert system, said alert system including a broadcast data receiver apparatus for the reception and processing of data from a remote location to generate a video display and/or audio sound, said receiver apparatus including a connection to receive incoming data and a telecommunications connection, characterised in that said receiver apparatus includes a control means which, when activated, generates an alert signal and transmits the same to a predesignated location via a modem and the telecommunication line.

[0008] In one embodiment the control means is activated by a user via a remote control device. Typically the remote control device can also be used to control the operating functions of the broadcast data receiver apparatus.

[0009] In one embodiment the remote control device utilises an infra red signal generating means to send a signal to the receiver apparatus to activate the alert means. In this embodiment the remote control device can be based on a conventional remote control system with the provision of an additional control button or button pressing sequence which creates the required signal code to activate the alert means.

[0010] In an alternative embodiment the remote control device utilises an RF signal generating means which when activated causes the generation of an RF signal which can be received via an RF receiver fitted in connection with the receiver apparatus.

[0011] In a yet further embodiment which may be used in combination with or independently from any of the above embodiments, there are provided a network comprising a plurality of aerial connection sockets throughout the premises, said sockets linked typically by a coaxial cable which in turn is linked to the receiver apparatus via a socket to which that is connected. Typically, at each or selected sockets a remote control signal receiver is provided.

[0012] In one embodiment the receiver is provided as part of a television set connected to respective sockets or alternatively and typically in the absence of a television set at the location of the aerial socket, the receiver can be connected directly to the socket with the receiver typically provided with a power source and provided in a protective housing. In one embodiment the receiver is battery powered or alternatively can be powered via the aerial cable leading to the socket.

[0013] In any case, when a signal is received at one of the receivers, the same is passed along the coaxial cable which carries the alert signal to the receiver, in the reverse direction to the data transmitted from the receiver to a television connected to the socket. The alert signal is then fed to the receiver apparatus which is also connected to the coaxial cable. With the signal received, the alert means in the receiver apparatus can

be activated. In one embodiment the receiver may also include an audible and/or visual alarm and/or the receiver is provided with data to allow the generation of a video and/or audio alarm via the television set connected there with so that other persons within the premises can be alerted. However it is envisaged that major benefit can be achieved by the ability to transmit the alert signal via the telecommunications link to a remote warden or monitoring point.

[0014] In one embodiment any or any combination of the remote control signal receivers and/or sockets and/or television sets and/or broadcast data receivers are provided with manually operable switches to allow the generation and transmission of an alert signal

[0015] Specific embodiments of the invention are now described with reference to the accompanying drawings wherein;

Figure 1 illustrates one embodiment of the apparatus of the invention; and

Figure 2 illustrates a further embodiment of the invention in operation.

[0016] Referring firstly to Figure 1 there is illustrated a system and apparatus according to one embodiment of the invention wherein there is provided broadcast data receiver apparatus 2 in a premises. Said apparatus includes a means for receiving data which has been broadcast from a remote location, said data carried from receiving such as an aerial or satellite antenna or cable connection, not shown, to the apparatus by a coaxial cable connection 4. The receiver apparatus also includes a telecommunications link 6 to an external telephone system. Provided within the receiver apparatus is a modem 8 which is used to control the telecommunications link. The receiver apparatus is connected to a television set 11 for the generation of video on the display screen 13 and audio via speakers 15. Receiving means 10 are provided for the reception and processing of signals emitted by a remote control device 12 which can be conventionally used by the user of the apparatus to control the functions of the apparatus. The signals can be transmitted using infra red or RF transmission means or any other suitable transmission system.

[0017] Operation of the system according to Figure 1 and in accordance with one embodiment of the current invention, involves the use of the remote control device by a person in time of emergency. If they are in an emergency situation or need assistance, they can utilise the remote control device to summon assistance or raise an alert by pressing an appropriately marked button or buttons on the remote control device. When the signal is received by the receiving means 10, the signal is processed by the broadcast data receiver. The processing of the signal in this case indicates to the receiver apparatus that a signal is required to be sent to an external source and so the modem 8 is controlled to dial a particular contact number which is pre-programmed and held in memory and send a predesignated alert signal to a warden or monitoring service via the telecommunications line. It should be noted that although reference is made to a telecommunications line herein any suitable form of communications link can be used between the broadcast data receiver apparatus and the remote location and the description should be interpreted as including any suitable form of communications link.

[0018] In one arrangement, the signal which is generated and sent via the telecommunications link includes an identification code which indicates to the monitor station and/or warden the location from which the signal has been sent so that assistance can be directed to the location of the premises.

[0019] Figure 2 illustrates an embodiment of the invention which may be implemented instead of or in addition to the system shown in Figure 1.

[0020] In Figure 2 the alert system is provided to allow activation and transmission of the alert signal by the broadcast data receiver from a number of different locations in a premises 17. In this case the premises comprises a number of rooms 14 and in each room, in this case, an aerial socket 16 is provided. In the example shown a television set 20 is connected to the broadcast data receiver apparatus 2 and in turn to an aerial socket 16 in one room, with a further television 20 connected to an aerial socket 16 in another room. The aerial sockets 16 are connected to each other and to the receiver apparatus from where the television signals are sourced via a coaxial cable network 18.

[0021] In use, the user can selectively connect television sets 20 to the sockets 16 as shown and, where connected, the remote control signal receiving means on the television sets are utilised to allow the reception of a signal generated from a remote control device in the room in which they are located to indicate an alert in a manner which will be explained in more detail below.

[0022] In those rooms where television sets are not connected to the sockets 16 remote control signal receiving units 22 are instead connected to the sockets. These units can either be battery powered or may instead draw their power from the coaxial cable at the socket and are typically provided in a protective housing.

[0023] Thus, in use, if a person needs assistance or wishes to raise an alert, they can use a remote control device in the room in which they are located. If there is a television in that room, the remote control receiving means of the television set, as long as it is on standby or switched on, will receive the signal and transmit the same via network 18 to the receiver apparatus.. If there is no television connected then a remote control device can still be used in that room with the signal being picked up by the unit 22 and transferred via the network 18 to the receiver apparatus. Once the signal is received at the broadcast data receiver 2 via the net-

work 18 the alert signal is transmitted via the telecommunications line in a similar manner to that described with respect to Figure 1

[0024] Preferably a common remote control device or devices can be provided which allow operation of all the remote control signal receivers utilised through out the premises.

[0025] Thus, in accordance with the present invention there is provided a system whereby a resident of a premises can use broadcast data receiving apparatus, which they may have already or will wish to have in the near future to perform an additional function without the need for additional expense and/or installation to be provided. This will lead to the provision of a greater number of alert systems in those premises where the same are required than is presently the case.

[0026] Although the invention is described with reference to a broadcast data receiver it is noted that the invention can be utilised with a base station in place of the broadcast data receiving apparatus such that no video or audio data is processed or generated by the base station but the base station does have the ability to receive the remote control signals either directly from the remote control device or via the network throughout the premises as previously described. Upon the reception of the signal the base station can then transmit an alert signal via a suitable communications link such as the telecommunications line. This is therefore another aspect of the invention for which the applicant reserves the right to include in the claims of this or a subsequent divisional application.

Claims

1. An alert system, said alert system including broadcast data receiver apparatus for the reception and processing of data from a remote location to generate a video display and/or audio, said receiver apparatus including a connection to receive incoming data and a telecommunications connection, characterised in that said receiver apparatus includes a control means which, when activated, generates an alert signal and transmits the same to a predesignated location via a modem and the telecommunication line.

2. An alert system according to claim 1 characterised in that the control means is activated by a user by the generation of a signal via a remote control device which is received by the broadcast data receiver.

3. An alert system according to claim 2 characterised in that the remote control device can also be used to control the operating functions of the broadcast data receiver apparatus.

4. An alert system according to claim 2 characterised in that the remote control device utilises an infra red or Radio Frequency signal generating means to send a signal to the receiver apparatus to activate the alert means.

5. An alert system according to claim 2 characterised in that the remote control device includes a designated button or button pressing sequence which creates the required signal code to activate the alert means.

6. An alert system according to claim 1 characterised in that the system includes a network of aerial connection sockets throughout a premises, said sockets linked by the network which in turn is linked to the broadcast data receiver apparatus via a socket to which that is connected.

7. An alert system according to claim 6 characterised in that the sockets are interconnected using coaxial cable.

8. An alert system according to claim 6 characterised in that at each or selected sockets, a remote control signal receiver is provided.

9. An alert system according to claim 8 characterised in that the remote control signal receiver is provided as part of a television set connected to a socket.

10. An alert system according to claim 8 characterised in that a remote control signal receiver unit is connected to the socket.

11. An alert system according to claim 10 characterised in that the remote control signal receiver is provided with a power source and provided in a protective housing.

12. An alert system according to claim 6 characterised in that when a signal is received at one of the remote control signal receivers, an indication is passed along the coaxial cable which carries the alert signal to the broadcast data receiver and the alert control means in the receiver apparatus is activated.

13. An alert system according to claim 6 characterised in that any or any combination of the remote control signal receivers and/or sockets are provided with manually operable switches to allow the generation and transmission of an alert signal.

14. An alert system according to claim 1 characterised in that the broadcast data receivers include an audible and/or visual alarm and/or the receiver is provided with data to allow the generation of a video and/or audio alarm via a television set connected

therewith.

15. An alert system according to claim 1 characterised in that the broadcast data receiver includes a manually operable switch to allow the generation of an alert signal.

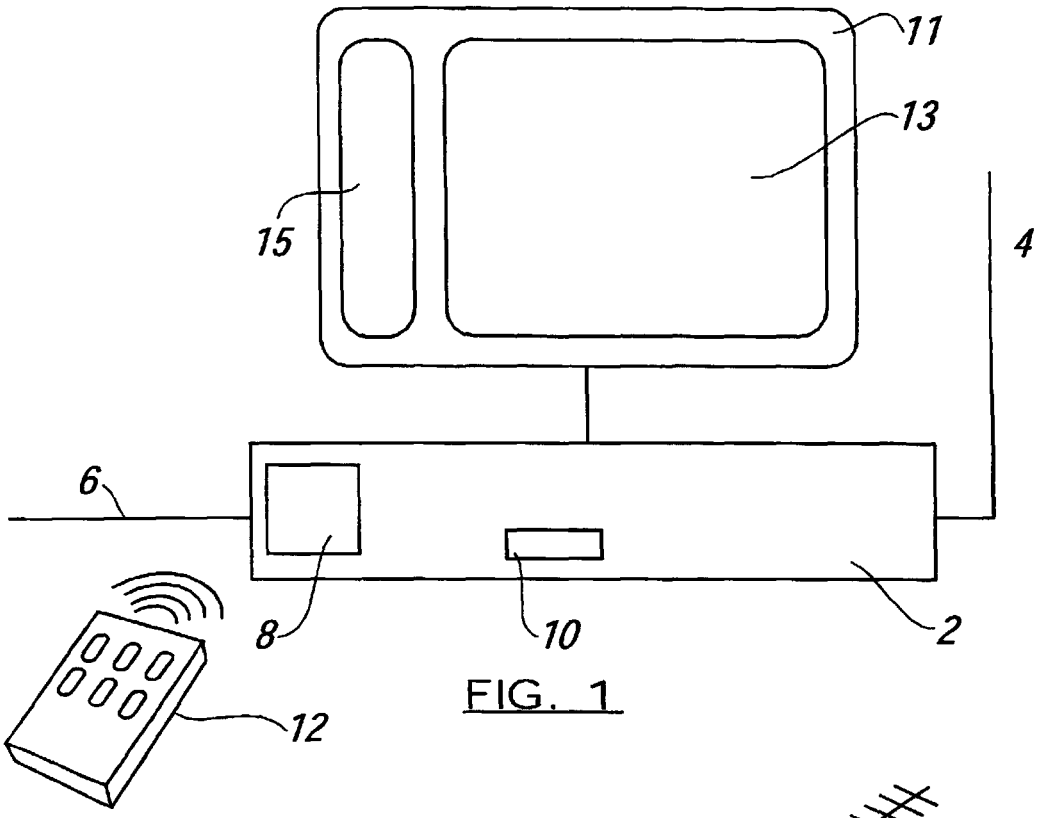

FIG. 1

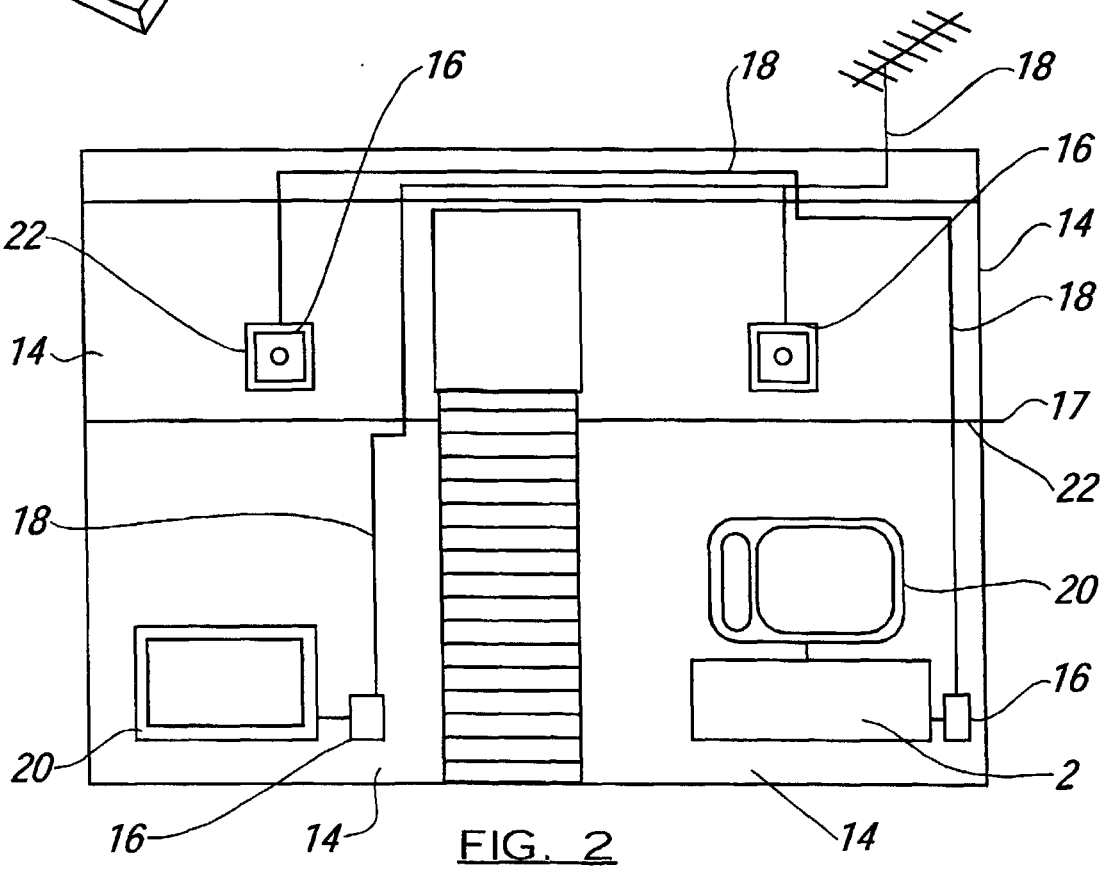

FIG. 2