transmitted to, or read by, the computer 21, and a determination is made as to whether the initially stored distances between the devices have changed.

Any change in distance between any two or more of the respective global positioning devices 22A-22E would represent that the vehicle, or at least a portion thereof, has been dismantled, at least in part, and possibly to a greater extent, depending upon the resulting disparity in the respective distances. This information may then be transmitted via transmitter 24 to the vehicle position system receiver 14 and the authorized user or operator can be notified of this condition. In this manner, it can be ascertained if a vehicle has been dismantled, "chopped", or stripped, which information may be vital in the recovery process, and in the insurance claims process. The embodiment of Figure 10 can also be utilized in order to ascertain if the vehicle has been compacted or "boxed." In this manner, the present invention may also be utilized in order to determine if the vehicle has been structurally altered in any manner.

The apparatus and the method of the present invention may also be utilized in conjunction with a central security office or agency, such as a private security service, or by local or regional law enforcement offices or agencies, in order to provide a prompt means by which to report a vehicle theft, provide for a manner in which to disable and/or re-enable a vehicle system, and/or to determine vehicle position and/or location so as to facilitate the recovery of the vehicle. In such an embodiment, vehicle owners will register their vehicles and any and all necessary information pertaining thereto, including access and command codes, with the central security office.

The present invention may also be utilized so as to provide for a prompt law enforcement theft reporting, response to the theft report and recovery of the vehicle. Figure 11A illustrates another alternate embodiment of the present invention wherein the apparatus 1 is utilized in conjunction with a central security office or agency, such as a private security service, or by a local or regional law enforcement office or agency. In Figure 11A, the apparatus 1 is utilized in conjunction with an associated apparatus 950 which, in the preferred embodiment, is located at the central security office.

The apparatus 950 comprises a receiver 955 which may, but need not, be identical to the receiver 3 which is utilized in the apparatus 1. The receiver 955 should be capable of receiving the various codes which can be transmitted by the transmitter 2 or transceiver (i.e. access code(s) and command code(s)) for any one or for any number of vehicles which may be registered with the central security office. The receiver 955 should be capable of receiving the access code(s) and command code(s) for each registered apparatus.

In the embodiment of Figure 11A, the apparatus 950 also comprises a computer 970, which is connected to the receiver 955. The apparatus 950 also comprises a vehicle position system receiver 960 for receiving position data which is transmitted from the vehicle position and locating device 13. The position data system receiver 960 is also connected to the computer 970. The computer 970 also comprises the requisite memory ROM and RAM devices (not shown). The apparatus 950 also comprises a display device 980, an user interface device 975 and an output device 985 which can be a printer, all of which devices are connected to the computer 970 and are utilized in conjunction therewith.

The apparatus 950 also comprises a transmitter 965 which is connected to the computer 970. The transmitter 965 serves to transmit data to the apparatus 1. The transmitter 965 may also be utilized to transmit data to the transmitter 2, to the vehicle position system receiver 14 and/or to the home and/or personal computer 150, if utilized. Such data which is transmitted from the transmitter 965 may include the various access and command codes and/or other codes, such as those codes for ascertaining the status of the vehicle, the apparatus 1, or any one or more of the vehicle systems which are controlled, monitored, and/or secured or used in conjunction with the apparatus 1.

It is important to note that, in the preferred embodiment, the receiver 955, the vehicle position system receiver 960, and the transmitter 965 are the same types of devices as those utilized in the apparatus of Figure 1. In this regard, the receivers 955 and 960, and the transmitter 965, are devices for receiving, and transmitting, respectively, radio signals, satellite communication signals, telecommunications signals, optical communication signals and/or other signals and/or those signals, including digital signals, which are utilized in conjunction with personal communication devices and/or personal communication services (PCS) devices. The devices utilized should, however, be of the same type and/or operate compatibly with the corresponding transmitters and receivers of the apparatus 1.

It is envisioned that the authorized user or operator will register his or her vehicle with the apparatus 950 such as by registering vehicle identification information along with vehicle access and command code data along with any other pertinent information described hereinabove or hereinbelow. Further, the receiver 955 is programmed to receive any and all of the signals

transmitted from each one of the respective registered transmitters 2 of the respectively registered vehicles.

The vehicle position system receiver 960 is programmed to receive the vehicle position data which is transmitted by each one of the respectively registered vehicle position and locating devices 13 of each of the respectively registered vehicles.

The apparatus 950 is utilized in conjunction with the apparatus 1 in the following manner. As noted above, the computer 970 is capable of recognizing all of the possible access code(s) and command code(s) which are recognized by the apparatus 1 for a particular vehicle. The apparatus 950 is capable of storing vehicle identification information as well as access code and command code data for a plurality of registered vehicles.

Upon the occurrence of a vehicle theft, or the discovery thereof, the authorized user or operator can access the apparatus 1 in the manner described above. In a first embodiment, the access code is transmitted to and received at, the receiver 3 of apparatus 1 and at the receiver 955 of apparatus 950. Upon receipt of the access code by both the receiver 3 and the receiver 950, both the apparatus 1 and the apparatus 950, respectively, will be accessed.

Applicant hereby incorporates by reference herein the subject matter of U.S. Patent No. 4,882,579 which teaches a code division multiplexed acknowledge back (ack-back) paging system which includes a central station which transmits a group of message signals to a group of ack-back pagers which are addressed as a group.

The signal received at the receiver 955 is transmitted to, or read from, the computer 970 of the apparatus 950. The computer 970 will then identify the vehicle which is stolen and/or which has been accessed. When the authorized user or operator transmits the command code, the command code is received at the receiver 955 of the apparatus 950 as well as at the receiver 3 of the apparatus 1. In this regard, when the apparatus 1 is processing the command code and performing the functions corresponding thereto, the computer 970 of the apparatus 950 is simultaneously and/or concurrently processing the command code data so that the authorized personnel monitoring the apparatus 950 will be aware of which command code has been transmitted by the authorized user or operator and which operations are being exercised and/or performed, or are to be performed, on the vehicle (i.e., vehicle ignition system and/or fuel pump system disabled, etc.). The authorized personnel monitoring the apparatus 950 will also be aware of which operations and/or systems, equipment, devices and/or appliances, are being controlled, monitored and/or secured. The apparatus 950, in the preferred embodiment, may also be utilized to exercise and/or perform control, monitoring and/or security functions on, or over, the vehicle and/or any of the vehicle systems, equipment, devices and/or appliances.

Upon the transmission of the vehicle position data from the vehicle position and locating device 13, the vehicle position data will be transmitted to, and received by, the vehicle position system receiver 960 of the apparatus 950 as well as by the vehicle position system receiver 14 of the apparatus 1. The computer 970 of the apparatus 950 will process the received vehicle position data simultaneously and/or concurrently with the processing of said position data by the CPU 4 of the apparatus 1.

In this regard, the vehicle position data can be processed by, and at, the apparatus 950. Vehicle position data can then be displayed to authorized personnel at the central security office on the display device 980 or output via the output device 985 which may be a printer. While operation of the apparatus 950 may be automatic, authorized personnel may enter commands so as to provide control over, or operate, the apparatus 950 via the user interface 975, if desired.

In this manner, vehicle location or movement may be displayed, and/or tracked, on the display device 980 or output via the output device 985 at the central security office. In this regard, authorized personnel at the central security office or agency could locate or track the vehicle and alert the proper authorities.

In yet another embodiment, the access code may be only transmitted to, and received by, the receiver 955 of the apparatus 950. The apparatus 1 may then be accessed and controlled via access and command codes which are transmitted by the transmitter 965 of the apparatus 950 which access and command codes are received by the receiver 3 of the respective vehicle. In this embodiment, the authorized personnel may provide control over the apparatus 1 by inputting data and commands into the user interface 975. In this embodiment, the vehicle position data and any data transmitted by the CPU 4 of the apparatus 1, is transmitted to, and received by, the vehicle position receiver system 960 and/or at the vehicle position system receiver 14, respectively.

In yet another embodiment, the access code may be transmitted and received only at the receiver 3 thereby accessing the apparatus 1. The vehicle transmitter 3A then transmits a data

signal to the receiver 955 of the apparatus 950 thereby alerting the apparatus 950 that the vehicle has been stolen. Command code data as well as other data may then be transmitted to the apparatus 1 via the transmitter 965 of the apparatus 950. The apparatus 950 may be designed to operate and/or perform any and all of the described functions automatically and without operator intervention. Vehicle position data may then be received by the vehicle position receiver system 960 and/or at the vehicle position system receiver 14, respectively. The vehicle position data may then be processed at the computer 970 of the apparatus 950 and/or at the computer 31 of the vehicle position system receiver 14.

In this manner, the apparatus 950 can serve to provide control over, and monitor the functions of, the apparatus 1 for a vehicle or for a plurality of vehicles, and further, the apparatus 950 provides the means by which to allow a central security office or local or regional law enforcement office or agency to exercise and/or perform control, monitoring and/or security functions over the vehicles which are registered therewith. The apparatus and method of the present invention may also be utilized to monitor the operational status, operation and/or state or status of a one or more of the various vehicle systems, components and/or devices. In the case where the apparatus 1 is automatically activated, as described above, the apparatus 1 can transmit a signal, indicative of vehicle theft and/or an unauthorized use or operation of the vehicle, to the apparatus 950 thereby reporting the unauthorized use or operation, or theft, before the authorized user or operator is able to discover same.

The apparatus 950 may also be utilized so as to verify and monitor apparatus accessing and/or activation by the authorized user or operator. The authorized user or operator may "call" the

central security office simply to determine the status and/or the whereabouts or location of his or her vehicle. It is important to note that both the apparatus 1 and the apparatus 950 can provide the same functions and exercise the same control, monitoring, and/or security functions over the vehicle.

The above-described alternate embodiment, wherein the present invention is utilized in conjunction with a central security office, such as a private security agency, or a local or regional law enforcement office, agency and/or authority, provides for and facilitates a prompt and an immediate reporting of a vehicle theft or unauthorized use, and/or provides for ascertaining the status and/or the location of and/or the monitoring of the vehicle. This embodiment also allows the authorized user or operator to take any of the possible steps by which to report and/or to thwart the vehicle theft and activate a vehicle recovery system. Law enforcement efforts could be greatly assisted and enhanced as information which identifies the vehicle could then be immediately available to the central security office and/or to the local or regional law enforcement authorities. Such an embodiment could also greatly assist in processing insurance claims relating to stolen vehicles.

The apparatus 950 may also be utilized in connection with an on-line service and/or on, or over, the Internet and/or the World Wide Web, or other suitable communication network or medium, in a manner analogous to that described above in connection with the utilization of a home and/or a personal computer 150.

Figure 11B illustrates yet another alternate embodiment of the present invention wherein the apparatus of Figure 11A is utilized in conjunction with an on-line service and/or on, or over,

the Internet and/or the World Wide Web or other suitable communication network or medium. In Figure 11B, the home and/or personal computer 150 of Figure 5A is utilized in place of the transmitter 2 or transceiver and the vehicle position system receiver 14. The apparatus 950 has associated therewith an on-line service and/or an Internet computer system or server 952 with an associated server receiver 953 and transmitter 957 for receiving and transmitting, respectively, any and all data utilized in conjunction with the operation of the server 952, the apparatus 1 and the apparatus 950.

The transmitter 957 transmits any and all appropriate signals to the appropriate and respective devices of the arrangement of Figure 11B during apparatus operation. In this regard, the server 952 can exercise and/or perform control, monitoring and/or security functions on, or over, the apparatus 1 and the apparatus 950 and also provide for an apparatus which can be utilized, in its entirety, over an on-line service and/or on, or over, the Internet and/or the World Wide Web or other suitable communication network or medium. In Figure 11B, a Web Site 954 is associated with the server 952.

Any and all data received by the receiver 955 is also received by the server receiver 953. Data which is transmitted by the home and/or personal computer 150, the CPU transmitter 4A, the receiver transmitter 3A and the vehicle position and locating device transmitter 24 are received by the server receiver 953 as well as by the receivers 955 and 960, respectively.

The server 952 will process the data received by the server receiver 953 and perform the same processing functions and/or

computing functions as the computer 970, the CPU 4, and/or the computer 150.

The user may transmit data, via the home and/or personal computer 150, directly to the apparatus 1, to the apparatus 950 and/or to the server 952. By using the computer 150 in conjunction with an appropriate communications medium, the authorized user or operator may access the server 952 via the on-line service and/or via the associated Web site 954, or in any other appropriate manner, so as to provide control over, and/or obtain any and all of the above-described data and/or information regarding, his or her vehicle over the on-line service and/or on, or over, the Internet and/or the World Wide Web or other suitable communication network or medium.

The authorized user or operator may also access and provide control over or exercise and/or perform control, monitoring and/or security functions on, or over, the apparatus 1, the apparatus 950 and/or the server 952 via the on-line service and/or via the Web Site 954. In this regard, the present invention enables an authorized user or operator to provide control over vehicle systems and/or monitor the vehicle system status and/or position and/or movement of the vehicle over an on-line service and/or on, or over, the Internet and/or the World Wide Web or other suitable communication network or medium. It is important to note that the apparatus transmitters, of the transmitter 2, the receiver 3, the CPU 4, and the vehicle position and locating device 13, once the apparatus 1 has been activated, may also transmit data directly to the receiver 953 of the server 952 and/or to the Web Site 954. In this manner, all of the data transmitted by the apparatus 1 and/or by the apparatus 950 can be supplied to the server 952 of the on-

line service and/or the Internet and/or the Web Site 954 of the World Wide Web.

Data access and command code data, as well as other data, may also be transmitted by the authorized user or operator, via the respective apparatus transmitters to the receiver 953 of the server 952 and/or to the Web Site 954.

The server 952 can perform complete control, monitoring and/or security functions on, or over, the apparatus 1, the apparatus 950, the vehicle, and/or each of the vehicle systems. The apparatus and method of the present invention may be equipped with software and hardware for providing a systematic check of any and all of the apparatus and vehicle systems, including the status or state of the vehicle equipment systems, equipment, devices and/or appliances and provide data relating thereto to the user or operator and/or to the authorized individual(s) at the above-described central security office. The server transmitter 957 can transmit control signals and/or other data, including information to the authorized user or operator and to the apparatus 1 and/or to the apparatus 950. It is also envisioned that the server 952 and the computer 970 may be combined into a single central computer system.

In the above manner, the apparatus and method of the present invention provides a remote-controlled control, monitoring and/or security system, or vehicle anti-theft and/or vehicle recovery apparatus and method, for use in conjunction with an on-line service and/or on, or over, the Internet and/or the World Wide Web or other suitable communication network or medium. In this manner, the apparatus and method of the present invention also provides for a remote-controlled control, monitoring and/or security system

which provides visual, video, graphical, audio and/or audible information to the user. Use over the Internet and/or the World Wide Web and/or other related communication systems and/or mediums and/or over on-line services provides for global coverage, control, monitoring and/or security for the vehicle.

In yet another alternate embodiment, the present invention is utilized in conjunction with a marine vessel or vehicle. Figure 12 illustrates an alternate embodiment of the present invention, wherein the apparatus and method is utilized in conjunction with a boat. In Figure 12, the apparatus is denoted generally by the reference numeral 1200. While the boat described below is a motor-powered boat, it is important to note that any type of boat, including, but not limited to sailboats, may also be utilized in conjunction with the present invention.

In Figure 12, the components of the apparatus 1200 which are common to the apparatus 1 of Figure 1 are designated by the same reference numerals. In Figure 12, the CPU 4 is electrically connected and/or linked to the boat ignition system 1207, which is located externally from the apparatus 1200. The CPU 4 may or may not be connected and/or linked with the boat ignition system 1207 through an ignition system interface 1208 which is also shown in Figure 12. The CPU 4 may transmit signals to, as well as receive signals from, the boat ignition system 1207. In this manner, the CPU 4 and the boat ignition system 1207, may exchange information between each other. In this manner, the CPU 4, upon receiving an appropriate signal from the receiver 3, and upon the completion of the requisite data processing routine(s), may issue an electrical, an electronic, and/or any other suitable signal, including a digital command signal, to the boat ignition system 1207. This electrical, electronic and/or other suitable signal, or digital

command signal, may be one which will disable the boat ignition system 1207 or one which will re-enable or reset the boat ignition system 1207. The CPU 4 may also interrogate the boat ignition system 1207 and/or receive data from the boat ignition system 1207 which is indicative of boat ignition system status (i.e., whether the boat ignition system 1207 is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the boat fuel pump system 1209 which is also located externally from the apparatus 1. The CPU 4 may or may not be connected and/or linked with the boat fuel pump system 1209 through a fuel pump system interface 1210 which is also shown in Figure 12. In the case of an electrical or an electronic fuel pump system, the CPU 4 may provide an electrical, an electronic, and/or other suitable signal, including a digital signal, which will disable or re-enable the boat fuel pump system 1209.

In the case of a mechanical fuel pump system, the CPU 4 may provide an electrical, electronic, and/or other suitable signal, including a digital signal, which will disable or re-enable an electrical valve system, which may be used to control the operation of the mechanical fuel pump system. Whichever the case may be, the CPU 4 will be capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the boat fuel pump system 1209. The CPU 4 may also interrogate and/or receive data from the boat fuel pump system 1209 which is indicative of boat fuel pump system status (i.e., whether the boat fuel pump system 1209 is on or off). The CPU 4 may also be electrically connected and/or linked to an appropriate device (not shown) for controlling the operation of a boat exhaust system.

The CPU 4, in the preferred embodiment, is also electrically connected and/or linked to at least one or more of a boat equipment system(s) 1211. The boat equipment system(s) 1211 are located externally from the apparatus 1 and may or may not be connected and/or linked to the CPU 4, via a boat equipment system(s) interface device(s) 1212 which may or may not be required for each one of the variety or multitude of the boat equipment systems which may be utilized in conjunction with the apparatus.

The boat equipment system(s) 1211 may include a loud siren or alarm, which may be located in the cabin or passenger compartment of the boat and, which may produce a loud piercing sound so as to make it unbearable for an intruder to remain inside the boat cabin and/or passenger compartment. The boat equipment system 1211 may also include an external siren or alarm, which may produce a loud piercing sound, which may be utilized to draw attention to the boat. The boat equipment system 1211 may also include a horn, which may blare continuously or intermittently, so as to also draw attention to the boat.

The boat external light system(s), which may include the boat head lights, tail lights or flashers, which may be constantly illuminated or which may blink on and off repeatedly so as to draw attention to the boat, may also be utilized as a boat equipment system 1211. The boat equipment system 1211 may also include a power door or hatch locking system, including electronic and/or electrical dead bolt locking devices, for securing the boat cabin, cockpit or passenger compartment so as to prevent an entry thereunto or an exit therefrom. In addition, the boat equipment system(s) 1211 may include an engine compartment locking device, such as an electrical and/or mechanical locking device, for preventing unauthorized access into the boat engine compartment, so

as to prevent any tampering with the apparatus 1 or with other systems and/or components of the boat.

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The boat equipment system(s) 1211 may also include any one or more of the widely known boat anti-theft systems and may also include a boat recovery system or device, including a homing and/or a tracking system, each of which system(s) may be activated by the apparatus 1200 of the present invention. The boat equipment system(s) 1211 may also include communication devices, such as two-way radios, radios, televisions, navigational devices and/or equipment, fire extinguishing equipment, pumping devices for pumping water out of the boat, radar devices and equipment, emergency and/or distress signal equipment, sonar devices and/or equipment, and any electrical, electronic and/or otherwise activated appliances and/ or equipment which may be utilized on a boat. Appliances may include household appliances such as refrigerators, stoves, air conditioners, ovens, microwave ovens, lighting systems, etc. The boat equipment system(s) 11 may also include systems for detecting failures in any of the above or any other equipment systems and report such failures to the user or operator whether he or she is operating the boat or is not onboard the boat and/or for reporting such failures to a central office.

The boat equipment system(s) 1211 may also include video recording and/or photographing equipment, which may include video recording device(s) and/or a camera(s), such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, display telephones, video telephones, and/or other communication devices, including personal communication devices, or a still picture camera(s). The video recording device(s) or camera(s) may be digital recording devices or cameras or other suitable devices or cameras, including typical

video recording devices or cameras. The video recording device(s) or camera(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting video images recorded by the video recording device(s) or camera(s) to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the video recording device(s) or camera(s).

The video recording device(s) or camera(s) may be located at any location on the interior of the boat such as, for example, in the cabin, cockpit, and/or passenger compartment of the boat so that the user or operator, or any other authorized individual, may observe and/or photograph the operator of the boat, or the occupants and/or cargo of the boat. The video recording(s) or camera(s) may also be located on the boat exterior. The video recording device(s) or camera(s) may have wide angles for maximum angular viewing and may also be pivotable and/or movable. The video recording device(s) or camera(s) may record and/or transmit the recorded video and/or the picture(s) in real time and/or live. The video recording device(s) or camera(s) may also be equipped with a storage medium, for storing the recorded video and/or picture(s), and a transmitter or transceiver for transmitting the stored video and/or picture(s) to the user or operator at a later time. In this manner, real-time, as well as deferred, video and/or picture(s) transmissions may be provided.

The boat equipment system(s) 1211 may also include audio recording equipment, which may include audio recording device(s) such as microphones and/or tape recorders, such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, telephones, cellular telephones, display telephones, video telephones, and/or other

communication devices, including personal communication devices. The audio recording device(s) may be digital audio recording devices or other suitable audio devices including typical audio recording devices. The audio recording device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting the recorded audio to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the audio recording device(s).

The audio recording device(s) may be located at any location on the interior and/or exterior of the boat so that the user or operator, or any other authorized individual, may hear what is transpiring, and/or what has transpired, inside and/or outside the boat. The audio recording device(s) may also be pivotable and/or movable. The audio recording device(s) may record and/or transmit the recorded audio in real time and/or live. The audio recording device(s) may also be equipped with a storage medium, for storing the recorded audio, and a transmitter or transceiver for transmitting the stored audio at a later time. In this manner, real-time as well as deferred audio transmissions may be provided.

The boat equipment system(s) 1211 may also include an intercom system or device or telephone, cellular, digital or otherwise for providing a means by which to allow the user or operator, or other authorized operator, to communicate with the operator and/or occupants of the boat. The boat equipment system(s) 1211 may also include monitoring device(s) for reading and/or monitoring the boat fuel supply, water and/or coolant supply, electrical generator and/or alternator operation, battery charge level, and/or engine or motor temperature level, marine control system and/or any other boat operation and/or system

function. The monitoring device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting data and/or information recorded and/or read by the monitoring device(s) to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the monitoring device(s).

As noted above, the use of any one or more of the boat equipment system(s) 1211, and their associated interface devices 1212, may be optional. Further, wireless devices may be utilized for any of the devices utilized in conjunction with the apparatus 1200.

The boat equipment system(s) 1211 receives signals from the CPU 4, which signals serve to activate or de-activate, or vice versa, whichever the case may be, the respective boat equipment system(s) which are utilized in conjunction with the apparatus 1200. The boat equipment system(s) 1211 may also include any other suitable boat system or equipment feature which may be utilized to draw attention to the boat and/or in some other way to impede boat theft. It should be noted that any of the interface devices 1208, 1210 and 1212 may include any of the requisite interfacing circuitry which may be necessary to facilitate CPU 4 control over the respective systems which may be utilized.

The apparatus 1200 also comprises a position and locating device 13 which can be utilized in order to determine the position and/or the location of the boat. The position and locating device 13 can be utilized so as to determine the position of the boat anywhere in the world and provide for the transmission of boat position and/or location data to any appropriate system receiver so

that the boat may be located and/or tracked and recovered. In the preferred embodiment, the position and locating device 13 comprises and utilizes a global positioning device and an associated transmitter for transmitting position and/or location data to the authorized user or operator and/or to an authorized office or agency authorized to receive and/or to monitor such data transmissions.

The apparatus 1200 of Figure 12 also comprises a position and locating system receiver 14, which may be employed by the authorized user or operator and/or by the authorized office or agency, for receiving and/or processing the data which is transmitted from the position and locating device 13 as described above. The apparatus of may also comprise a user interface device (not shown).

The apparatus and method of the alternate embodiment of Figure 12 may be utilized and/or operates in the same or in a similar and/or analogous manner as described above with regards to the embodiments of Figures 1-11B and/or consistent with the description of the various embodiments and features of the present invention as described herein. The apparatus and method of the present invention may also provide for the immediate, and/or for the deferred, control, activation, deactivation, programming, monitoring and/or security of any one or more of the boat and/or marine vessel or vehicle systems, equipment, devices, appliances, etc., in the same, similar and/or analogous manner as described above with its use in conjunction with vehicles and/or motor vehicles.

Although the present invention has been hereinabove described as being utilized in conjunction with a boat, it is noted

that the present invention may be utilized in conjunction with a ship, cruise ship, or any other boat, manned or unmanned, regardless of size, shape or form, private, commercial and/or military. The boat equipment systems may also include guns and/or weapon systems and/or self-defense systems and/or electronic warfare systems. The present invention may also be utilized in conjunction with submersible vehicles such as submarines.

In yet another alternate embodiment, the present invention is utilized in conjunction with an aircraft, airplane, jet or helicopter. Figure 13 illustrates an alternate embodiment of the present invention, wherein the apparatus and method is utilized in conjunction with an airplane. The apparatus of Figure 13 is denoted generally by the reference numeral 1300. In Figure 13, the components of the apparatus which are common to the apparatus 1 of Figure 1 are designated by the same reference numerals. In Figure 13, the CPU 4 is electrically connected and/or linked to the airplane ignition system 1307, which is located externally from the apparatus 1300. The CPU 4 may or may not be connected and/or linked with the airplane ignition system 1307 through an ignition system interface 1308 which is also shown in Figure 13.

The CPU 4 may transmit signals to, as well as receive signals from, the airplane ignition system 1307. In this manner, the CPU 4 and the airplane ignition system 1307, may exchange information between each other. In this manner, the CPU 4, upon receiving an appropriate signal from the receiver 3, and upon the completion of the requisite data processing routine, may issue an electrical, an electronic, and/or any other suitable signal, including a digital command signal, to the airplane ignition system 1307. This electrical, electronic and/or other suitable signal, or digital command signal, may be one which will disable the airplane

ignition system 1307 or one which will re-enable or reset the airplane ignition system 7. The CPU 4 may also interrogate the airplane ignition system 1307 and/or receive data from the airplane ignition system 1307 which is indicative of ignition system status (i.e., whether the airplane ignition system 1307 is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the airplane fuel pump or supply system 1309 which is also located externally from the apparatus 1300. The CPU 4 may or may not be connected and/or linked with the airplane fuel pump system 1309 through a fuel pump system interface 1310 which is also shown in Figure 13. In the case of an electrical or an electronic fuel pump system, the CPU 4 may provide an electrical, an electronic, and/or other suitable signal, including a digital signal, which will disable or re-enable the airplane fuel pump or supply system 1309.

In the case of a mechanical fuel pump system, the CPU 4 may provide an electrical, electronic, and/or other suitable signal, including a digital signal, which will disable or re-enable an electrical valve system, which may be used to control the operation of the mechanical fuel pump system. Whichever the case may be, the CPU 4 will be capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the airplane fuel pump system 1309. The CPU 4 may also interrogate and/or receive data from the airplane fuel pump or supply system 1309 which is indicative of airplane fuel pump system status (i.e., whether the airplane fuel pump system 1309 is on or off). The CPU 4 may also be electrically connected and/or linked to an appropriate device (not shown) for controlling the operation of a airplane exhaust system.

The CPU 4, in the preferred embodiment, is also electrically connected to at least one or more of an airplane equipment system(s) 1311. The airplane equipment system(s) 1311 are located externally from the apparatus 1300 and may or may not be connected to the CPU 4, via an airplane equipment system(s) interface device(s) 1312 which may or may not be required for each one of the variety or multitude of the airplane equipment systems which may be utilized in conjunction with the apparatus 1300.

The airplane equipment system(s) 1311 may include a loud siren or alarm, which may be located in the cabin, passenger compartment and/or cockpit of the airplane and, which may produce a loud piercing sound so as to make it unbearable for an intruder to remain inside the airplane cabin, passenger compartment and/or cockpit. The airplane equipment system(s) 1311 may also include an external siren or alarm, which may produce a loud piercing sound, which may be utilized to draw attention to the airplane. The airplane equipment system(s) 1311 may also include a horn, which may blare continuously or intermittently, so as to also draw attention to the airplane.

The airplane external light system(s), which may include the airplane head lights, tail lights or flashers, which may be constantly illuminated or which may blink on and off repeatedly so as to draw attention to the airplane, may also be utilized as a airplane equipment system 1311. The airplane equipment system(s) 1311 may also include a power door or hatch locking system or device, for securing the airplane cabin, passenger compartment and/or cockpit so as to prevent an unauthorized entry thereunto or an exit therefrom. In addition, the airplane equipment system(s) 1311 may include a locking system, such as a mechanical locking system, for preventing an unauthorized access into the airplane

engine compartment so as to prevent tampering with the apparatus 1300 or with other systems and/or components of the airplane.

Sub. N3

The airplane equipment system(s) 11 may also include any one or more of the widely known airplane anti-theft systems and may also include a airplane recovery system or device, including a homing and/or a tracking system, each of which system(s) may be activated by the apparatus 1300 of the present invention. The airplane equipment system(s) 1311 may also include landing gear, communication devices, such as two-way radios, radios, televisions, navigational devices and/or equipment, fire extinguishing equipment, radar devices and equipment, emergency and/or distress signal equipment, sonar devices and/or equipment, and any electrical, electronic and/or otherwise activated appliances and/or equipment which may be utilized on an airplane. Appliances may include household appliances such as refrigerators, stoves, air conditioners, ovens, microwave ovens, lighting systems, etc. The airplane equipment system(s) 1311 may also include systems for detecting failures in any of the above or any other equipment systems and report such failures to the user or operator whether he or she is operating the airplane or is not onboard the airplane and/or for reporting such failures to a central office.

The airplane equipment system(s) 1311 may also include video recording and/or photographing equipment, which may include video recording device(s) and/or a camera(s), such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, display telephones, video telephones, and/or other communication devices, including personal communication devices, or a still picture camera(s). The video recording device(s) or camera(s) may be digital recording devices or cameras or other suitable devices or cameras, including typical

video recording devices or cameras. The video recording device(s) or camera(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting video images recorded by the video recording device(s) or camera(s) to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the video recording device(s) or camera(s).

The video recording device(s) or camera(s) may be located at any location on the interior of the airplane such as, for example, in the dashboard, cabin, cockpit, and/or passenger compartment of the airplane so that the user or operator, or any other authorized individual, may observe and/or photograph the operator of the airplane, or the occupants and/or cargo of the airplane. The video recording(s) or camera(s) may also be located on the airplane exterior. The video recording device(s) or camera(s) may have wide angles for maximum angular viewing and may also be pivotable and/or movable. The video recording device(s) or camera(s) may record and/or transmit the recorded video and/or the picture(s) in real time and/or live. The video recording device(s) or camera(s) may also be equipped with a storage medium, for storing the recorded video and/or picture(s), and a transmitter or transceiver for transmitting the stored video and/or picture(s) to the user or operator at a later time. In this manner, real-time, as well as deferred, video and/or picture(s) transmissions may be provided.

Sub. N4

The airplane equipment system(s) 1211 may also include audio recording equipment, which may include audio recording device(s) such as microphones and/or tape recorders, such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, telephones, cellular

telephones, display telephones, video telephones, and/or other communication devices, including personal communication devices. The audio recording device(s) may be digital audio recording devices or other suitable audio devices including typical audio recording devices. The audio recording device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting the recorded audio to the user or operator and for receiving signals such as, for example, control signals by which the user or operator may exercise control over the audio recording device(s).

The audio recording device(s) may be located at any location on the interior and/or exterior of the airplane so that the user or operator, or any other authorized individual, may hear what is transpiring, and/or what has transpired, inside and/or outside the airplane. The audio recording device(s) may also be pivotable and/or movable. The audio recording device(s) may record and/or transmit the recorded audio in real time and/or live. The audio recording device(s) may also be equipped with a storage medium, for storing the recorded audio, and a transmitter or transceiver for transmitting the stored audio at a later time. In this manner, real-time as well as deferred audio transmissions may be provided.

The airplane equipment system(s) 1311 may also include an intercom system or device or telephone, cellular, digital, or otherwise for providing a means by which to allow the user or operator, or other authorized operator, to communicate with the operator and/or occupants of the airplane. The airplane equipment system(s) 1311 may also include monitoring device(s) for reading and/or monitoring the airplane fuel supply, water and/or coolant supply, electrical generator and/or alternator operation, battery charge level, and/or engine or motor temperature level, airplane

flight control systems and/or any other airplane operation and/or system function. The monitoring device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting data and/or information recorded and/or read by the monitoring device(s) to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the monitoring device(s).

As noted above, the use of any one or more of the airplane equipment system(s) 1311, and their associated interface devices 1312, may be optional. Further, as described above, wireless devices may be utilized.

The airplane equipment system(s) 1311 receives signals from the CPU 4, which signals serve to activate or de-activate, or vice versa, whichever the case may be, the respective airplane equipment system(s) which are utilized in conjunction with the apparatus 1300. The airplane equipment system(s) 1311 may also include any other suitable airplane system or equipment feature which may be utilized to draw attention to the airplane and/or in some other way to impede the airplane theft. It should be noted that any of the interface devices 1308, 1310 and 1312 may include any of the requisite interfacing circuitry which may be necessary to facilitate CPU 4 control over the respective systems which may be utilized.

The apparatus 1300 also comprises a position and locating device 13 which can be utilized in order to determine the position and/or the location of the airplane. The position and locating device 13 can be utilized so as to determine the position of the airplane anywhere in the world and provide for the transmission of

airplane position and/or location data to any appropriate system receiver so that the airplane may be located and/or tracked and recovered. In the preferred embodiment, the position and locating device 13 comprises and utilizes a global positioning device and an associated transmitter for transmitting position and/or location data to the authorized user or operator and/or to an authorized office or agency authorized to receive and/or to monitor such data transmissions.

The apparatus 1300 also comprises a position and locating system receiver 14, which may be employed by the authorized user or operator and/or by the authorized office or agency, for receiving and/or processing the data which is transmitted from the position and locating device 13 as will be described above. The apparatus 1 may also comprise a user interface device (not shown).

The apparatus and method of the alternate embodiment of Figure 13 may be utilized and/or operates in the same or in a similar and/or analogous manner as described above with regards to the embodiments of Figures 1-12 and/or consistent with the description of the various embodiments and features of the present invention as described herein.

The apparatus and method of the present invention may also provide for the immediate, and/or for the deferred, control, activation, deactivation, programming, monitoring and/or security of any one or more of the airplane systems, equipment, devices, appliances, etc., in the same, similar and/or analogous manner as described herein.

Although the present invention has been hereinabove described as being utilized in conjunction with an airplane, it is

noted that the present invention may be utilized in conjunction with any aircraft, including airplanes, jets, gliders, spacecraft, space shuttles, satellites, manned or unmanned, regardless of size, shape or form, private, commercial and/or military. The airplane equipment systems may also include guns and/or weapon systems and/or self-defense systems and/or electronic warfare systems.

In yet another alternate embodiment, the present invention is utilized in conjunction with a snowmobile, jetski or recreational vehicle. Figure 14 illustrates an alternate embodiment of the present invention wherein the apparatus is utilized in conjunction with a snowmobile. The apparatus of Figure 14 is denoted generally by the reference numeral 1400. In Figure 14, the components of the apparatus 1400 which are common to the apparatus 1 of Figure 1 are designated by the same reference numerals. In Figure 14, the CPU 4 is electrically connected and/or linked to the snowmobile ignition system 1407, which is located externally from the apparatus 1. The CPU 4 may or may not be connected and/or linked with the snowmobile ignition system 1407 through an ignition system interface 1408 which is also shown in Figure 14.

The CPU 4 may transmit signals to, as well as receive signals from, the snowmobile ignition system 1407. In this manner, the CPU 4 and the snowmobile ignition system 1407, may exchange information between each other. In this manner, the CPU 4, upon receiving an appropriate signal from the receiver 3, and upon the completion of the requisite data processing routine, may issue an electrical, an electronic, and/or any other suitable signal, including a digital command signal, to the snowmobile ignition system 1407. This electrical, electronic and/or other suitable signal, or digital command signal, may be one which will disable

the snowmobile ignition system 1407 or one which will re-enable or reset the snowmobile ignition system 1407. The CPU 4 may also interrogate the snowmobile ignition system 1407 and/or receive data from the snowmobile ignition system 1407 which is indicative of ignition system status (i.e., whether the snowmobile ignition system 1407 is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the snowmobile fuel pump or supply system 1409 which is also located externally from the apparatus 1400. The CPU 4 may or may not be connected and/or linked with the snowmobile fuel pump system 1409 through a fuel pump system interface 1410 which is also shown in Figure 14. In the case of an electrical or an electronic fuel pump system, the CPU 4 may provide an electrical, an electronic, and/or other suitable signal, including a digital signal, which will disable or re-enable the snowmobile fuel pump system 1409.

In the case of a mechanical fuel pump system, the CPU 4 may provide an electrical, electronic, and/or other suitable signal, including a digital signal, which will disable or re-enable an electrical valve system, which may be used to control the operation of the mechanical fuel pump system. Whichever the case may be, the CPU 4 will be capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the snowmobile fuel pump system 1409. The CPU 4 may also interrogate and/or receive data from the snowmobile fuel pump system 1409 which is indicative of snowmobile fuel pump system status (i.e., whether the snowmobile fuel pump system 1409 is on or off). The CPU 4 may also be electrically connected and/or linked to an appropriate device (not shown) for controlling the operation of a snowmobile exhaust system.

The CPU 4, in the preferred embodiment, is also electrically connected and/or linked to at least one or more of a snowmobile equipment system or system(s) 1411. The snowmobile equipment system(s) 1411 are located externally from the apparatus 1400 and may or may not be connected to the CPU 4, via a snowmobile equipment system interface 1412 which may or may not be required for each one of the variety or multitude of the snowmobile equipment systems which may be utilized in conjunction with the apparatus.

The snowmobile equipment system(s) 1411 may include a loud siren or alarm, which may be located in, or on, the passenger compartment of the snowmobile and, which may produce a loud piercing sound so as to make it unbearable for an intruder to remain inside or on the snowmobile. The snowmobile equipment system(s) 1411 may also include an external siren or alarm, which may produce a loud piercing sound, which may be utilized to draw attention to the snowmobile. The snowmobile equipment system(s) 1411 may also include a horn, which may blare continuously or intermittently, so as to also draw attention to the snowmobile.

The snowmobile light system(s), which may include the snowmobile head lights, tail lights or flashers, which may be constantly illuminated or which may blink on and off repeatedly so as to draw attention to the snowmobile, may also be utilized as a snowmobile equipment system 1411. The snowmobile equipment system(s) 1411 may also include a power locking systems and/or devices as appropriate as well as steering mechanism locking devices, locking devices for preventing unauthorized access into or onto the snowmobile, snowmobile track locking devices for preventing movement of the snowmobile and/or locking devices for preventing unauthorized access to the snowmobile engine, so as to

prevent any tampering with the apparatus or with other systems and/or components of the snowmobile.

The snowmobile equipment system(s) 1411 may also include any one or more of the known snowmobile anti-theft systems and may also include a snowmobile recovery system or device, including a homing and/or a tracking system, each of which system(s) may be activated by the apparatus of the present invention. The snowmobile equipment system(s) 1411 may include any other equipment systems, including any and all of the above-noted equipment systems described herein for use in conjunction with vehicles, boats and airplanes, including video and/or audio recording equipment and/or intercom equipment and/or any of the herein-described communications systems and/or devices.

The snowmobile equipment system(s) 1411 may also include monitoring device(s) for reading and/or monitoring the snowmobile fuel supply, water and/or coolant supply, electrical generator and/or alternator operation, battery charge level, and/or engine or motor temperature level, snowmobile control system and/or any other snowmobile operation and/or system function. The monitoring device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting data and/or information recorded and/or read by the monitoring device(s) to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the monitoring device(s).

As noted above, the use of any one or more of the snowmobile equipment system(s) 1411, and their associated interface devices 1412, may be optional. Further, as described above, wireless devices may also be utilized.

The snowmobile equipment system(s) 1411 receives signals from the CPU 4, which signals serve to activate or de-activate, or vice versa, whichever the case may be, the respective snowmobile equipment system(s) which are utilized in conjunction with the apparatus 1400. The snowmobile equipment system(s) 1411 may also include any other suitable snowmobile system or equipment feature which may be utilized to draw attention to the snowmobile and/or in some other way impede the snowmobile theft. It should be noted that any of the interface devices 1408, 1410 and 1412 may include any of the requisite interfacing circuitry which may be necessary to facilitate CPU 4 control over the respective systems which may be utilized.

The apparatus 1400 also comprises a position and locating device 13 which can be utilized in order to determine the position and/or the location of the snowmobile. The position and locating device 13 can be utilized so as to determine the position of the snowmobile anywhere in the world and provide for the transmission of position and/or location data to any appropriate system receiver so that the snowmobile may be located and/or tracked and recovered. In the preferred embodiment, the position and locating device 13 comprises and utilizes a global positioning device and an associated transmitter for transmitting position and/or location data to the authorized user or operator and/or to an authorized office or agency authorized to receive and/or to monitor such data transmissions.

The apparatus 1400 of Figure 14 also comprises a position and locating system receiver 14, which may be employed by the authorized user or operator and/or by the authorized office or agency, for receiving and/or processing the data which is transmitted from the snowmobile position and locating device 13 as

described above. The apparatus 1 may also comprise a user interface device (not shown).

The apparatus and method of the alternate embodiment of Figure 14 may be utilized and/or operates in the same or in a similar and/or analogous manner as described herein and/or consistent with the description of the various embodiments and features of the present invention.

The apparatus and method of the present invention may also provide for the immediate, and/or for the deferred control, activation, deactivation, programming, monitoring and/or security of any one or more of the snowmobile and/or recreational vehicle systems, equipment, devices, appliances, etc., in the same, similar and/or analogous manner as described above in conjunction with the various embodiments of the present invention.

Although the present invention has been hereinabove described as being utilized in conjunction with a snowmobile, it is noted that the present invention may also be utilized in conjunction with any type of recreational vehicle, including jetskis, scooters, motorcycles, minibikes, go-carts, mopeds, etc, manned or unmanned, regardless of size, shape or form, private, commercial and/or military. The recreational vehicle equipment systems may also include guns and/or weapon systems and/or self-defense systems and/or electronic warfare systems, if desired, and especially when used in law enforcement and/or military applications.

It is important to note that the present invention can be utilized in conjunction with a motor home, a mobile home and/or a camper as the present invention may be utilized to provide control,

monitoring and/or security functions pertaining to motor vehicle equipment and home systems, equipment and appliances.

In still another alternate embodiment, the present invention can be utilized in conjunction with a residential premises, residential building and/or a home or a household control system. Figure 15 illustrates an alternate embodiment of the present invention wherein the apparatus and method is utilized in conjunction with a home control system. The apparatus of Figure 15 is denoted generally by the reference numeral 1500. It is understood that, while the embodiment of Figure 15 is illustrated and described in conjunction with a home or a household system, the apparatus 1500 may be utilized in any residential premises and/or any residential building.

In Figure 15, the components of the apparatus 1500 which are common to the apparatus 1 of Figure 1 are designated by the same reference numerals. In Figure 15, the CPU 4 is electrically connected and/or linked to the home and/or household central electrical system 1507, which is located externally from the apparatus 1500. The CPU 4 may or may not be connected and/or linked with the home central electrical system 1507 through a central electrical system interface 1508 which is also shown in Figure 15.

The CPU 4 may transmit signals to, as well as receive signals from, the home central electrical system 1507. In this manner, the CPU 4 and the home central electrical system 1507, may exchange information between each other. In this manner, the CPU 4, upon receiving an appropriate signal from the receiver 3, and upon the completion of the requisite data processing routine, may issue an electrical, an electronic, and/or any other suitable

signal, including a digital command signal, to the home central electrical system 1507. This electrical, electronic and/or other suitable signal, or digital command signal, may be one which will disable the home central electrical system 1507 or one which will re-enable or reset the home central electrical system 1507. The CPU 4 may also interrogate the central electrical system 1507 and/or receive data from the central electrical system 1507 which is indicative of central electrical system status (i.e., whether the central electrical system 1507, or any portion thereof, is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the home central heating system 1509 which is also located externally from the apparatus 1500. The CPU 4 may or may not be connected and/or linked with the home central heating system 1509 through a central heating system interface 1510 which is also shown in Figure 15. The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the home central heating system 1509. The CPU 4 may also interrogate and/or receive data from the home central heating system 1509 which is indicative of home central heating system status (i.e., whether the central heating system 1509, or any portion thereof, is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the home central air conditioning system 1511 which is also located externally from the apparatus 1500. The CPU 4 may or may not be connected and/or linked with the home central air conditioning system 1511 through a central air conditioning system interface 1512 which is also shown in Figure 15. The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to

disable or to re-enable the home central air conditioning system 1511. The CPU 4 may also interrogate and/or receive data from the home central air conditioning system 1511 which is indicative of home central air conditioning system status (i.e., whether the central air conditioning system 1511, or any portion thereof, is on or off).

The CPU 4 may also be electrically connected and/or linked to the home water system 1513 which is also located externally from the apparatus 1500. The CPU 4 may or may not be connected and/or linked with the home water system 1513 through a home water system interface 1514 which is also shown in Figure 15. The home water system interface 1514, in the preferred embodiment, is an electrically controlled water shut-off valve(s) or similar device(s). The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the home water system 1513. The CPU 4 may also interrogate and/or receive data from the home water system 1513 which is indicative of the state of the home water system 1513 (i.e. whether the home water system 1513 , or any portion thereof, is on or off). The home water system 1513 may then be controlled (i.e. turned on or off) and/or adjusted by the user or operator.

The CPU 4 may also be electrically connected and/or linked to the home thermostat or environmental control system 1517 so as to control and/or monitor home interior temperature. The CPU 4 may or may not be connected and/or linked with the home thermostat system 1517 through a home thermostat system interface 1518 which is also shown in Figure 15. The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the home thermostat

system 1517. The CPU 4 may also interrogate and/or receive data from the home thermostat system 1517 which is indicative of the state of the home thermostat system 1517 (i.e. home interior temperature and/or whether the temperature of the home interior, or any portion thereof, is too hot, too cold, or acceptable). The home thermostat system 1517 may then be controlled and/or adjusted by the user or operator. In this manner, the home thermostat system 1517 may then be adjusted and/or controlled by the user or operator via the apparatus 1500. The home thermostat system 1517 may be connected and/or linked to the home central heating system 1509 and/or to the home central air conditioning system 1511 so as to activate, de-activate, set and/or control the operation of these systems, as necessary, in order to, and so as to, achieve the desired temperature and/or environmental conditions in the home.

The CPU 4, in the preferred embodiment, is also electrically connected and/or linked to at least one or more of a home equipment system(s) 1515. The home equipment system(s) 1515 are located externally from the apparatus 1500 and may or may not be connected and/or linked to the CPU 4, via a home system equipment system or systems interface 1516 which may or may not be required for each one of the variety or multitude of the home equipment system(s) 1515 which may be utilized in conjunction with the apparatus 1500.

The home equipment system(s) 1515 may include a home anti-theft and/or burglary alarm system, a loud siren or alarm, which may be located in the interior of the home, which may produce a loud piercing sound so as to make it unbearable for an intruder to remain inside the home, an exterior siren or alarm, which may produce a loud piercing sound, which may be utilized to draw attention to the home and exterior lighting system(s) and interior lighting systems, which lighting systems may be turned on or turned

off at the user or operator's discretion and which may be controlled to blink on and off to draw attention to the home.

The home equipment system(s) 1515 may also include a electrical and/or electronically controlled locking devices for doors and/or windows, including electrical and/or electronic dead-bolt locking systems and devices, electrical systems for controlling electrical circuits or systems room-by-room, device-by-device, and/or appliance-by-appliance. The home equipment system(s) 1515 may also include devices for controlling any one or more of the electrical circuits, such as circuits controlled by fuses, circuit breakers or equivalent devices. The home equipment system(s) 1515 may also include devices for controlling and/or monitoring hot water heaters, garage door openers, lawn sprinkler systems, electric fences and/or fencing, in-ground or above-ground pool equipment, filters and/or heaters, home central water valve, individual room water valve, home fire detector equipment and home fire extinguishment equipment. Home equipment system(s) 1515 may also include power door and window closing, locking and opening equipment.

The home equipment system(s) 1515 may also include any and all of a wide variety of home appliances such as televisions, telephones, telephone answering machines, alarm systems, VCRs, stoves, ovens, microwave ovens, door bells, individual lights or lamps, blenders, toasters, personal computers, word processors, stereos, radios, and any other home appliance and/or device which is electrically and/or electronically activated and/or controllable.

The home equipment system(s) 1515 may also include video recording and/or photographing equipment, which may include video

recording device(s) and/or a camera(s), such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, display telephones, video telephones, and/or other communication devices, including personal communication devices, or a still picture camera(s). The video recording device(s) or camera(s) may be digital recording devices or cameras or other suitable devices or cameras, including typical video recording devices or cameras. The video recording device(s) or camera(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting video images recorded by the video recording device(s) or camera(s) to the owner or occupant and for receiving signals such as, for example, control signals, by which the owner or occupant may exercise control over the video recording device(s) or camera(s).

The video recording device(s) or camera(s) may be located at any location on the interior of the home such as, for example, in any room or rooms of the home so that the owner or occupant, or any other authorized individual, may observe and/or photograph any portions and/or rooms in the interior of the home, or the occupants and/or anything which may be located and/or stored in the home. The video recording device(s) or camera(s) may also be located on the exterior of the home so that the owner or occupant, or any other authorized individual, may observe and/or photograph the exterior of the home or residential premises, or portion thereof, or the individuals or objects and/or anything which may be present, located and/or stored on the premises of home and/or residential premises.

The video recording device(s) or camera(s) may have wide angles for maximum angular viewing and may also be pivotable and/or movable. The video recording device(s) or camera(s) may record

and/or transmit the recorded video and/or the picture(s) in real time and/or live. The video recording device(s) or camera(s) may also be equipped with a storage medium, for storing the recorded video and/or picture(s), and a transmitter or transceiver for transmitting the stored video and/or picture(s) to the owner or occupant at a later time. In this manner, real-time, as well as deferred, video and/or picture(s) transmissions may be provided.

The home equipment system(s) may also include audio recording equipment, which may include audio recording device(s) such as microphones and/or tape recorders, such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, telephones, cellular telephones, display telephones, video telephones, and/or other communication devices, including personal communication devices. The audio recording device(s) may be digital audio recording devices or other suitable audio devices including typical audio recording devices. The audio recording device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting the recorded audio to the owner or occupant and for receiving signals such as, for example, control signals, by which the owner or occupant may exercise control over the audio recording device(s).

The audio recording device(s) may be located at any location on the interior and/or exterior of the home and/or residential premises so that the owner or occupant, or any other authorized individual, may hear what is transpiring, and/or what has transpired, inside and/or outside the home and/or residential premises. The audio recording device(s) may also be pivotable and/or movable. The audio recording device(s) may record and/or transmit the recorded audio in real time and/or live. The audio

recording device(s) may also be equipped with a storage medium, for storing the recorded audio, and a transmitter or transceiver for transmitting the stored audio at a later time. In this manner, real-time as well as deferred audio transmissions may be provided.

The home equipment system(s) 1515 may also include an intercom system or device or a telephone, cellular, digital or otherwise for providing a means by which to allow the user or operator, or other authorized operator, to communicate with the persons present in, or occupants of, the home. The home equipment system(s) 1515 may also include monitoring device(s) for reading and/or monitoring the home fuel supply, water supply, electrical generator and/or alternator operation, water usage, heat and/or air conditioning usage, electricity usage, gas and/or oil or other fuel usage, telephone usage and charges, appliance usage, etc, a home control system and/or any other home operation and/or system function. The monitoring device(s), in a preferred embodiment, may have associated therewith a transceiver or transmitter/receiver system for transmitting data and/or information recorded and/or read by the monitoring device(s) to the user or operator and for receiving signals such as, for example, control signals, by which the user or operator may exercise control over the monitoring device(s).

As noted above, the use of any one or more of the home equipment system(s) 1515 and/or appliances or devices and their associated interface devices 1516, may be optional. The interface devices 1516 my be wireless devices or modules which need not be directly connected to the CPU 4 or to its respective equipment system. In this regard, hard-wired connections are not necessary. In the case of wireless interface devices or modules 1516, corresponding wireless technology and/or systems may be utilized to

provide for the wireless control and operation of the respective equipment(s).

In the case of a mobile home, the apparatus 1500 may also comprise a position and locating device 13 which can be utilized in order to determine the position and/or the location of the mobile home. The mobile home position and locating device 13 can be utilized so as to determine the position of the mobile home anywhere in the world and provide for the transmission of position and/or location data to any appropriate system receiver so that the mobile home may be located and/or tracked and recovered. In a preferred embodiment, the mobile home position and locating device 13 comprises and utilizes a global positioning device and an associated transmitter for transmitting position and/or location data to the authorized user, operator and/or authorized individual.

The apparatus 1500 may also comprise a mobile home position and locating system receiver 14, which may be employed by the authorized user, operator and/or authorized individual, for receiving and/or processing the data which is transmitted from the position and locating device 13 as described in the alternate embodiments above. The apparatus 1 may also comprise a user interface device (not shown).

The home equipment system(s) receives signals from the CPU 4, which signals serve to activate or de-activate, or vice versa, whichever the case may be, the respective home equipment system(s) which are utilized in conjunction with the apparatus 1500. The home equipment system(s) 1515 may also include any other suitable home system or equipment feature which may be utilized to draw attention to the home and/or in some other way impede home theft. It should be noted that any of the interface devices may include

any of the requisite interfacing circuitry which may be necessary to facilitate CPU 4 control over the respective systems which may be utilized. It is understood that, while the embodiment of Figure 15 is illustrated and described in conjunction with a home or a household system, the embodiment may also be utilized in any residential premises and/or any residential building.

The apparatus and method of the alternate embodiment of Figure 15 may be utilized and/or operates in the same or in a similar and/or analogous manner as described in conjunction with the embodiments described above, and/or consistent with the description of the various embodiments and features of the present invention as described herein, so as to provide control, monitoring and/or security functions for, and over, a home and/or residential premises.

The apparatus and method of Figure 15 can provide for an immediate, as well as for a deferred, control, activation, de-activation, programming, monitoring and/or security function and/or response thereto of, and for, any one or more of the home and/or residential premises systems, equipment, devices, appliances, etc., in the same, similar and/or analogous manner as described above in conjunction with its utilization in the embodiments described herein.

As described above in conjunction with use of the apparatus and method of the present invention with vehicles, the present invention may, if desired, perform a test in order to determine the state or status of any particular system, equipment, device and/or appliance before exercising and/or performing a given control, monitoring and/or security function. Depending upon the outcome of the test, the apparatus and method of the present invention may

execute, alter and/or defer the performance and/or execution of the control, monitoring and/or security function. For example, a command to shut-off a home central electrical system may be deferred until after the operation of a home security system, which security system may be deemed to have priority in performing a monitoring and shut-down procedure for the entire home, has been successfully completed.

In this manner a homeowner or occupant may access a home system at any time and from any location and thereby exercise and/or perform control, monitoring and/or security functions on, or over, any home system, equipment and/or appliance. The owner or occupant may also monitor the status, state or operation of any home system, equipment, device and/or appliance. Lastly, the owner or occupant may perform security related functions or operations on, and over, the home system, equipment, device and/or appliance. As noted above, the present invention may be utilized in conjunction with a telephone, either analog or digital, a touch tone telephone, a cordless telephone and/or a cellular or mobile telephone, a home and/or a personal computer, having associated telecommunication devices or other suitable peripheral device(s) such as a modem and/or a fax/modem, or other personal communication devices, which may operate over an appropriate telecommunications system, and/or other suitable communications systems, including radio signal, optical, satellite and/or other communications systems.

In still another alternate embodiment, the apparatus of the present invention is utilized in conjunction with a commercial building, commercial office and/or commercial premises control system. Figure 16 illustrates an alternate embodiment of the present invention wherein the apparatus and method is utilized in

conjunction with an commercial office and/or premises control system. It is understood that, while the embodiment of Figure 16 is illustrated and described in conjunction with an commercial office and/or premises control system, the embodiment may also be utilized in any commercial building and/or any commercial premises and/or any type of building or premises. The apparatus of Figure 16 is denoted generally by the reference numeral 1600. In Figure 16, the components of the apparatus which are common to the apparatus of Figure 1 are designated by the same reference numerals.

In Figure 16, the CPU 4 is electrically connected and/or linked to the commercial office and/or premises central electrical system 1607, which is located externally from the apparatus 1600. The CPU 4 may or may not be connected and/or linked with the central electrical system 1607 through a central electrical system interface 1608 which is also shown in Figure 16. The CPU 4 may transmit signals to, as well as receive signals from, the central electrical system 1607. In this manner, the CPU 4 and the central electrical system 1607, may exchange information between each other. In this manner, the CPU 4, upon receiving an appropriate signal from the receiver 3, and upon the completion of the requisite data processing routine, may issue an electrical, an electronic, and/or any other suitable signal, including a digital command signal, to the central electrical system 1607. This electrical, electronic and/or other suitable signal, or digital command signal, may be one which will disable the central electrical system 1607 or one which will re-enable or reset the central electrical system 1607. The CPU 4 may also interrogate the central electrical system 1607 and/or receive data from the central electrical system 1607 which is indicative of central electrical

system status (i.e., whether the central electrical system 1607, or any portion thereof, is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the commercial office and/or premises central heating system 1609 which is also located externally from the apparatus 1600. The CPU 4 may or may not be connected and/or linked with the central heating system 1609 through a central heating system interface 1610 which is also shown in Figure 16. The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the central heating system 1609. The CPU 4 may also interrogate and/or receive data from the central heating system 1609 which is indicative of central heating system status (i.e., whether the central heating system 1609, or any portion thereof, is on or off).

In the preferred embodiment, the CPU 4 is also electrically connected and/or linked to the commercial office and/or premises central air conditioning system 1611 which is also located externally from the apparatus 1600. The CPU 4 may or may not be connected and/or linked with the central air conditioning system 1611 through a central air conditioning system interface 1612 which is also shown in Figure 16. The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the central air conditioning system 1611. The CPU 4 may also interrogate and/or receive data from the central air conditioning system 1611 which is indicative of central air conditioning system status (i.e., whether the central air conditioning system 1611, or any portion thereof, is on or off).

The CPU 4 may also be electrically connected and/or linked to the commercial office and/or premises water system 1613 which is also located externally from the apparatus 1600. The CPU 4 may or may not be connected and/or linked with the water system 1613 through a commercial office and/or premises water system interface 1614 which is also shown in Figure 16. The water system interface 1614, in the preferred embodiment, is an electrically controlled water shut-off valve(s) and/or device(s). The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the water system 1613. The CPU 4 may also interrogate and/or receive data from the water system 1613 which is indicative of the state of the water system (i.e. whether the water system, or any portion thereof, is on or off). The commercial office and/or premises water system 1613 may then be adjusted and/or controlled (i.e. turned on or off) by the user or operator.

The CPU 4 may also be electrically connected and/or linked to the commercial office and/or premises thermostat system 1617 which is also located externally from the apparatus 1600. The CPU 4 may or may not be connected and/or linked with the thermostat system 1617 through a commercial office and/or premises thermostat system interface 1618 which is also shown in Figure 16. The CPU 4 is capable of issuing an electrical, electronic and/or other suitable signal, including a digital signal, to disable or to re-enable the thermostat system 1617. The CPU 4 may also interrogate and/or receive data from the thermostat system 1617 which is indicative of the temperature of the commercial office and/or premises interior (i.e., the interior temperature and/or whether interior temperature, or any portion thereof, is too hot, too cold, or acceptable). The thermostat system 1617 may then be adjusted and/or controlled by the user or operator. The thermostat system

1617 may be connected and/or linked to the central heating system 1609 and to the central air conditioning system 1611 so as to activate and/or control the operation of these systems in order to, and so as to, achieve the desired temperature in the commercial office and/or premises.

The CPU 4, in the preferred embodiment, is also electrically connected and/or linked to at least one or more of a commercial office and/or premises equipment system(s) 1615. The commercial office and/or premises equipment system(s) 1615 are located externally from the apparatus 1600 and may or may not be connected and/or linked to the CPU 4, via a commercial office and/or premises system equipment system(s) interface 1616 which may or may not be required for each one of the variety or multitude of the commercial office and/or premises equipment systems which may be utilized in conjunction with the apparatus.

The commercial office and/or premises equipment system(s) 1615 may include a commercial office and/or premises anti-theft and/or burglary alarm system, loud siren or alarm, which may be located in the interior of the home, which may produce a loud piercing sound so as to make it unbearable for an intruder to remain inside the home, an exterior siren or alarm, which may produce a loud piercing sound, which may be utilized to draw attention to the commercial office and/or premises and exterior lighting system(s) and/or the interior lighting system(s), which lighting systems may be turned on or turned off at the user's or operator's discretion and which may be controlled to blink on and off to draw attention to the commercial office and/or premises.

The commercial office and/or premises equipment system(s) 1615 may also include electrical and/or electronically controlled

locking devices for doors and/or windows, including electric or electronic dead-bolt locking devices or systems, electrical systems for controlling electrical circuits or systems room-by-room, device-by-device, and/or appliance-by- appliance.

The commercial office and/or premises equipment system(s) 1615 may also include devices for controlling any one or more of the electrical circuits, such as circuits controlled by fuses, circuit breakers or equivalent devices. The commercial office and/or premises equipment system(s) 1615 may also include devices for controlling and/or monitoring hot water heaters, garage door openers, lawn sprinkler systems, electric fences and/or fencing, in-ground or above-ground pool equipment, fountain equipment, filters and/or heaters, commercial office and/or premises fire detector equipment and commercial office and/or premises fire extinguishment equipment. Commercial office and/or premises equipment system(s) 1615 may also include power door and window closing, locking and opening equipment.

The commercial office and/or premises equipment system(s) 1615 may also include any and all office equipment and/or premises appliances such as televisions, telephones, telephone answering machines, alarm systems, VCRs, stoves, ovens, microwave ovens, door bells, individual lights or lamps, blenders, toasters, computers and associated peripherals, word processors, stereos, radios, manufacturing equipment and any other commercial office and/or premises appliances and/or devices which are electrically and/or electronically activated and/or controllable.

The commercial office and/or premises equipment system(s) 1615 may also include video recording and/or photographing equipment, which may include video recording device(s) and/or a

camera(s), such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, display telephones, video telephones, and/or other communication devices, including personal communication devices, or a still picture camera(s). The video recording device(s) or camera(s) may be digital recording devices or cameras or other suitable devices or cameras, including typical video recording devices or cameras. The video recording device(s) or camera(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting video images recorded by the video recording device(s) or camera(s) to the owner or occupant and for receiving signals such as, for example, control signals, by which the owner or occupant may exercise control over the video recording device(s) or camera(s).

The video recording device(s) or camera(s) may be located at any location on the interior of the commercial office and/or premises such as, for example, in any room or rooms of the commercial office and/or premises so that the owner or occupant, or any other authorized individual, may observe and/or photograph any portions and/or rooms in the interior of the commercial office and/or premises, or the occupants and/or anything which may be located and/or stored in the commercial office and/or premises. The video recording device(s) or camera(s) may also be located on the exterior of the commercial office and/or premises so that the owner or occupant, or any other authorized individual, may observe and/or photograph the exterior of the commercial office and/or premises, or portion thereof, or the individuals or objects and/or anything which may be present, located and/or stored on the premises of commercial office and/or premises.

The video recording device(s) or camera(s) may have wide angles for maximum angular viewing and may also be pivotable and/or movable. The video recording device(s) or camera(s) may record and/or transmit the recorded video and/or the picture(s) in real time and/or live. The video recording device(s) or camera(s) may also be equipped with a storage medium, for storing the recorded video and/or picture(s), and a transmitter or transceiver for transmitting the stored video and/or picture(s) to the owner or occupant at a later time. In this manner, real-time, as well as deferred, video and/or picture(s) transmissions may be provided.

The commercial office and/or premises equipment system(s) 1615 may also include audio recording equipment, which may include audio recording device(s) such as microphones and/or tape recorders, such as those utilized in conjunction with personal computers, televisions, digital televisions, interactive televisions, telephones, cellular telephones, display telephones, video telephones, and/or other communication devices, including personal communication devices. The audio recording device(s) may be digital audio recording devices or other suitable audio devices including typical audio recording devices. The audio recording device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting the recorded audio to the owner or occupant and for receiving signals such as, for example, control signals, by which the owner or occupant may exercise control over the audio recording device(s).

The audio recording device(s) may be located at any location on the interior and/or exterior of the commercial office and/or premises so that the owner or occupant, or any other authorized individual, may hear what is transpiring, and/or what has

transpired, inside and/or outside the commercial office and/or premises.

The audio recording device(s) may also be pivotable and/or movable. The audio recording device(s) may record and/or transmit the recorded audio in real time and/or live. The audio recording device(s) may also be equipped with a storage medium, for storing the recorded audio, and a transmitter or transceiver for transmitting the stored audio at a later time. In this manner, real-time as well as deferred audio transmissions may be provided.

The commercial office and/or premises equipment system(s) 1615 may also include an intercom system or device or telephone, cellular, digital or otherwise, for providing a means by which to allow the user or operator, or other authorized individual, to communicate with the persons present in the, or occupants of the, commercial office and/or premises.

The commercial office and/or premises equipment system(s) 1615 may also include monitoring device(s) for reading and/or monitoring the commercial office and/or premises fuel supply, water supply, electrical generator and/or alternator operation, water usage, heat and/or air conditioning usage, electricity usage, gas and/or oil or other fuel usage, telephone usage and charges, commercial office and/or premises equipment and/or appliance usage, etc, a commercial office and/or premises control system and/or any other commercial office and/or premises operation and/or system function. The monitoring device(s), in a preferred embodiment, has associated therewith a transceiver or transmitter/receiver system for transmitting data and/or information recorded and/or read by the monitoring device(s) to the user or operator and for receiving signals such as, for example, control signals, by which

the user or operator may exercise control, monitoring and/or security over the monitoring device(s).

As noted above, the use of any one or more of the commercial office and/or premises equipment systems and/or appliances or devices 1615 and their associated interface devices 1616, may be optional. The interface devices 1616 my be wireless devices or modules which need not be directly connected to the CPU 4 or to its respective equipment system. In this regard, wired connections are not necessary. In the case of wireless interface devices or modules 1616, corresponding wireless technology and/or systems must be utilized to provide for the wireless control and operation of the respective equipment(s).

The commercial office and/or premises equipment system or system(s) 1615 receives signals from the CPU 4, which signals serve to activate or de-activate, or vice versa, whichever the case may be, the respective commercial office and/or premises equipment system(s) which are utilized in conjunction with the apparatus 1600. The commercial office and/or premises equipment system(s) 1615 may also include any other suitable commercial office and/or premises system or equipment feature which may be utilized to draw attention to the commercial office and/or premises and/or in some other way impede commercial office and/or premises theft. It should be noted that any of the interface devices may include any of the requisite interfacing circuitry which may be necessary to facilitate CPU 4 control over the respective systems, equipment, devices and/or appliances which may be utilized.

The apparatus and method of the alternate embodiment of Figure 16 is utilized and operates in the manner described above in conjunction with the vehicle and/or the home embodiments so as to

provide for a system for controlling, monitoring and/or providing security functions for and over a commercial office and/or premises. The apparatus and method of the alternate embodiment of Figure 16 may be utilized and/or operates in the same or in a similar and/or analogous manner consistent with the description of the various embodiments and features of the present invention as described herein so as to provide control, monitoring and/or security functions over and with respect to the commercial office and/or premises with which the apparatus is utilized in conjunction with.

In the case of mobile commercial office and/or premises, the apparatus 1600 may also comprise a commercial office and/or premises position and locating device 13 which can be utilized in order to determine the position and/or the location of the commercial office and/or premises. The position and locating device 13 can be utilized so as to determine the position of the commercial office and/or premises anywhere in the world and provide for the transmission of position and/or location data to any appropriate system receiver so that the commercial office and/or premises may be located and/or tracked and recovered. In the preferred embodiment, the position and locating device 13 comprises and utilizes a global positioning device and an associated transmitter for transmitting position and/or location data to the authorized user, operator, and/or authorized individual.

The apparatus 1600 also comprises a commercial offices and/or premises position and locating system receiver 14, which may be employed by the authorized user, operator, and/or authorized individual, for receiving and/or processing the data which is transmitted from the position and locating device 13 as described

above. The apparatus 1 may also comprise a user interface device (not shown).

The apparatus and method of the alternate embodiment of Figure 16 is utilized and operates in the manner described above in conjunction with the vehicle and/or the home premises embodiments so as to provide for a system for controlling, monitoring and/or providing security functions for, and over, a commercial office and/or premises. The apparatus and method of the alternate embodiment of Figure 16 may be utilized and/or operates in the same or in a similar and/or analogous manner as described in conjunction with the various embodiments described herein and/or consistent with the description of the various embodiments and features of the present invention as described herein, so as to provide control, monitoring and/or security functions for, and over, a commercial office and/or premises.

In this manner, an owner, occupant, and/or authorized individual, may access a commercial office and/or premises system at any time and from any location and thereby exercise and/or perform control, monitoring and/or security functions over any commercial office and/or premises system, equipment, device and/or appliance. The owner, occupant, and/or authorized individual, may also monitor the status, state or operation of any commercial office and/or premises system, equipment, device and/or appliance. Lastly, the owner or authorized individual may perform security related functions or operations on and over the commercial office and/or premises system, equipment, device and/or appliance.

The apparatus and method of Figure 16 can provide for an immediate, as well as for a deferred, control, activation, de-activation, programming, monitoring and/or security functions

and/or responses thereto, of, and for, any one or more of the commercial office and/or premises systems, equipment, devices, appliances, etc., in the same, similar and/or analogous manner as described above with in conjunction with the various embodiments.

As described above in conjunction with use of the apparatus and method of the present invention with vehicles and residential premises, the present invention may, if desired, perform a test in order to determine the state or status of any particular system, equipment, device and/or appliance before exercising and/or performing a given control, monitoring and/or security function. Depending upon the outcome of the test, the apparatus and method of the present invention may execute, alter, and/or defer, the performance and/or the execution of the control, monitoring and/or security function. For example, a command to shut-off a central electrical system may be deferred until after the operation of a security system, which security system may be deemed to have priority in performing a monitoring and shut-down procedure for the entire commercial office and/or premises, has been successfully completed.

As noted above, the present invention, in any of the herein described embodiments, as well as modifications, variations and/or alternate embodiments thereof, may be utilized in conjunction with a telephone, including analog and digital telephones, a touch-tone telephone, a cordless telephone and/or a cellular or mobile telephone, a home and/or a personal computer having associated telecommunication devices or other suitable peripheral device(s) such as a modem and/or a fax/modem, or other personal communication devices, which can operate over an appropriate telecommunications system, and/or other suitable communications systems, including

radio signal, optical, satellite and/or other communications systems.

The communications system(s) utilized in any of the embodiments described herein may operate anywhere in the electromagnetic and/or the radio spectrum. In this regard, personal communication service (PCS) systems and devices, including stationary, portable and/or hand-held devices, may also be utilized. Digital signal communications devices and/or systems, including digital satellite systems, may also be utilized. Interactive and/or digital televisions, personal communication devices, personal communications services (PCS) devices, telephones, including telephones which utilize analog or digital technology, personal digital assistants, cellular telephones, display telephones, video telephones, display cellular telephones and electronically equipped watches, beepers, pagers or paging systems, and/or other devices and/or personal effects and/or accessories may also be utilized for interactive use and/or for the display or output applications and/or functions. In this regard, the apparatus and method of the present invention may be utilized on, or over, the Internet and/or the World Wide Web, or other suitable communication network or medium, in order to control, monitor and/or provide security functions on, or for, any of the herein described vehicles, marine vessels or vehicles, aircraft, recreational vehicles, residential premises and/or commercial premises.

It is also envisioned that the apparatus and method of the present invention may find applications in areas other than those described and illustrated above. The present invention may find application in any type of control, monitoring and/or security system or the like, wherein a long-range remote-controlled and/or

interactive system may be utilized in order to provide an immediate, or a deferred, response to a control, monitoring and/or security function, or response thereto, and/or to exercise and/or provide control, monitoring or security over desired items and/or devices from a remote location. The present invention may also be utilized to monitor and/or track the whereabouts or location of various objects and/or systems. In this regard, the apparatus and method of the present invention may be utilized so as to monitor the whereabouts and/or location of individuals and to provide for a means by which to communicate with them.

The apparatus and method of the present invention may be utilized in conjunction with appropriate security devices for preventing access by unauthorized individuals. In this regard, the apparatus and method of the present invention may be utilized in conjunction with appropriate security access devices, secured and/or encrypted communication signals, linkups and mediums. Security measures may include utilization and processing of access codes, encrypted codes, personal identification codes and/or data, software-based security measures and/or devices, hardware-based security measures and/or devices, and/or any combination of software-based and hardware-based measures and/or devices. The security measures and/or methods utilized may also include the use of signal scramblers and associated de-scramblers, and/or any one or more of the widely known devices and/or methods for providing a secured communication system and/or link.

The present invention provides for an apparatus and method for exercising and/or performing remote-controlled control, monitoring and/or security functions and/or operations for any type and variety of vehicles, motor vehicles, marine vessels and

vehicles, aircraft, recreational vehicles, residential premises and/or commercial premises.

The apparatus and method of the present invention may also be programmable for programmed and/or automatic activation, self-activation, programmed and/or automatic operation and/or self-operation. The apparatus and method of the present invention may provide for an immediate, as well as for a deferred, control, monitoring and/or security function, and/or response thereto, so as to provide for the immediate and/or for the deferred control, activation, de-activation, programming, monitoring and/or security, etc., of any one or more of the respective systems, equipment, devices, appliances, etc., which may be utilized in any of the above described embodiments and/or in any modifications, variations and/or alternate embodiments thereof.

The present invention may also be equipped with, and be utilized with, hardware and software necessary for providing self-monitoring functions, automatic control and/or responses to occurrences, providing automatic notice of an occurrence and/or a situation to an owner, user and/or authorized individual. In this regard, any and all of the embodiments described above may comprise a monitoring device, a triggering device and/or any other suitable device for detecting an occurrence and/or a situation which may warrant providing notice to an owner, user and/or authorized operator. In this regard, the apparatus may provide a transmission of any appropriate signal from a transmitter and, if desired, from a voice synthesizer to the owner, user and/or authorized individual, or to the location of the individual. The signal utilized could be in the form of a communication transmission, depending upon the communication medium utilized, a telephone call, a voice message, a beeper and/or pager message, an Electronic mail

message, a fax transmission, and/or any other mode of communication which may be utilized with any of the apparatuses, devices and/or components described herein.

Any of the above-described embodiments may be utilized in conjunction with a central security office and/or agency for providing use in conjunction with such a central office and/or agency as described hereinabove. In this manner, each and every embodiment of the present invention may be utilized with a central security office and/or agency. The present invention may also provide a means for occupants of the vehicle, motor vehicle, marine vessel, aircraft, recreational vehicle, residential premises and/or commercial premises to contact a central security office and/or agency and/or any other individual having corresponding communication equipment and/or who is authorized and/or equipped to receive such transmissions.

The present invention enables an owner, user and/or authorized individual, to exercise and/or perform convenient control, monitoring and/or security functions, as and/or operations, over any of the above described or similar objects, vehicles, vessels and/or premises, from a remote location. For example, an individual may conveniently provide control over and monitor, the state and/or status of a vehicle parked at a location distant from his present location, and provide control over and monitor, a boat, an airplane, a vacation home which may be located in another locale, and/or to provide control over and monitor, a business office after hours or while absent therefrom.

The present invention, in any of the embodiments described herein, may be designed to be user-friendly. In this regard, the present invention may be menu-driven, and/or its operation may be

menu-selected, from audio menus, visual menus, or both audio and visual menus.

While the present invention has been described and illustrated in various preferred and alternate embodiments, such descriptions are merely illustrative of the present invention and are not to be construed to be limitations thereof. In this regard, the present invention encompasses any and all modifications, variations and/or alternate embodiments with the scope of the present invention being limited only by the claims which follow.

CLAIMS

WHAT IS CLAIMED IS:

1. A remote-controlled control, monitoring and/or security apparatus, which comprises:

a control device for controlling the operation of said apparatus; and

an activation device for activating said control device,

wherein said activation device activates an operation of said control device, and further wherein said control device generates a signal for at least one of controlling, monitoring, securing, disabling and re-enabling at least one of a system, equipment and device of at least one of a vehicle, a marine vehicle, an aircraft, a recreational vehicle, a residential premises and a commercial premises.

2. The apparatus of claim 1, wherein said activation device further comprises:

a transmitter: and

a receiver.

3. The apparatus of claim 2, wherein said transmitter is a telephone signal transmitter.

4. The apparatus of claim 2, wherein said receiver is a telephone signal receiver.

5. The apparatus of claim 1, which further comprises:

a positioning device, which further comprises:

a global positioning device for one of determining and calculating data indicative of position; and

a position data transmitter for transmitting said position data.

6. The apparatus of claim 1, which further comprises:

a device for one of detecting and reporting a theft situation.

7. The apparatus of claim 1, wherein said activation device is one of a telecommunication device and a computer system.

8. The apparatus of claim 7, wherein said activation system further comprises:

a transmitter for transmitting an activation signal to said control device; and

a receiver for receiving said position data from said positioning device.

9. The apparatus of claim 1, wherein said at least one of a system, equipment and device is one of a vehicle ignition system, a vehicle fuel pump system, a vehicle exhaust system, a vehicle light system, a vehicle alarm system, a vehicle anti-theft system,

a vehicle recovery system, a vehicle door lock system, a vehicle surveillance system, a premises anti-theft system, a premises electrical system, a premises heating system, a premises water system and a premises thermostat system.

10. The apparatus of claim 1, which further comprises:

a network computer;

a receiver for said network computer, wherein said receiver is a telephone signal receiver;

a transmitter for said network computer, wherein said transmitter is a telephone signal transmitter,

wherein said network computer is linked to said activation device via a telecommunication system,

wherein said receiver receives a signal from at least one of said activation device and said control device, and further wherein said transmitter transmits a signal to at least one of said activation device and said control device, and further wherein said control device at least one of controls, monitors and secures at least one of said apparatus, system, equipment and device.

11. The apparatus of claim 1, wherein said activation device is at least one of a programmable device, an automatically activated device, and a self-activated device, and further wherein said apparatus further comprises:

a device for providing notification of an event by at least one of a telephone call to a primary location to, a telephone call

to a secondary or alternate location to, a telephone call to a business location to, a facsimile transmission to, an electronic mail message transmission to, a beeper message to and a pager message to at least one of a user, operator, occupant, authorized office and authorized individual.

12. The apparatus of claim 1, wherein said apparatus operates one of on and over the Internet, the World Wide Web and a communication system servicing personal communication services devices.

13. A remote-controlled control, monitoring and/or security apparatus, which comprises:

a first control device;

a second control device; and

an activation device, wherein said activation device activates at least one of said first control device and said second control device,

wherein one of said first control device and said second control device generates a signal for at least one of controlling, monitoring, securing, disabling and re-enabling at least one of a system, equipment and device for at least one of a vehicle, a marine vehicle, an aircraft, a recreational vehicle, a residential premises and a commercial premises.

14. The apparatus of claim 13, wherein said activation device further comprises:

a transmitter; and

a receiver.

15. The apparatus of claim 14, wherein said transmitter is a telephone signal transmitter.

16. The apparatus of claim 14, wherein said receiver is a telephone signal receiver.

17. The apparatus of claim 13, which further comprises:

a network computer, wherein said network computer is linked to at least one of said first control device, said second control device and said activation device, and further wherein said network computer is directly accessible by a user of said apparatus;

a network computer receiver; and

a network computer transmitter,

wherein said network computer receiver receives signals from at least one of a user, operator, occupant of one of a vehicle and premises, said activation device, said first control device and said second control device, and further wherein said network computer transmitter transmits a signal to at least one of said activation device, said first control device and said second control device, and further wherein said network computer at least one of controls, monitors and secures at least one of said apparatus, a vehicle ignition system, a vehicle fuel pump system, a vehicle exhaust system, a vehicle light system, a vehicle alarm system, a vehicle anti-theft system, a vehicle recovery system, a

vehicle door lock system, a vehicle surveillance system, a premises anti-theft system, a premises electrical system, a premises heating system, a premises water system and a premises thermostat system.

18. The apparatus of claim 13, wherein said network computer is a server computer utilized one of on and over one of the Internet, the World Wide Web and a communication system which services personal communication services devices.

19. A method for remote-controlled control, monitoring and/or security, comprising the steps of :

activating a control device; and

generating a signal for at least one of controlling, monitoring, securing, disabling and re-enabling at least one of a system, equipment and device of at least one of a vehicle, a marine vehicle, an aircraft, a recreational vehicle, a residential premises and a commercial premises.

20. The method of claim 19, further comprising the step of:

generating one of a confirmation and a notification signal to notify one of an individual, a machine and a computer that the control, monitoring, securing, disabling and re-enabling function has been carried out and that said function is at least one of successful and unsuccessful.

add A1

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add H1

add H1 Add I17 add N1

ABSTRACT OF THE DISCLOSURE

A remote-controlled control, monitoring and/or security apparatus, which comprises a control device for controlling the operation of the apparatus, and an activation device for activating the control device. The activation device activates an operation of the control device and the control device generates a signal for at least one of controlling, monitoring, securing, disabling and re-enabling at least one of a system, equipment and device of at least one of a vehicle, a marine vehicle, an aircraft, a recreational vehicle, a residential premises and a commercial premises.

Docket No.: RJ008

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

REMOTE-CONTROLLED CONTROL, MONITORING AND/OR SECURITY APPARATUS AND METHOD FOR VEHICLES, MOTOR VEHICLES, MARINE VESSELS AND VEHICLES, AIRCRAFT, RECREATIONAL VEHICLES, RESIDENTIAL PREMISES AND/OR COMMERCIAL PREMISES

the specification of which (check only one item below)

[X] is attached hereto

[ ] was filed as United States application

Serial No. _____

on _____.

and was amended

on _____(if applicable).

[ ] was filed as PCT international application

Number _____

on _____.

and was entered under PCT Article 19

on _____(if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by an amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

Country (If PCT, indicate "PCT")	Application Number	Date of Filing (day, month, year)	Priority claimed under 35 USC 119
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no
			[ ] yes [ ] no

NY2-74129.1

Docket No.: RJ008

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those application(s) in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of the application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:

U.S. APPLICATIONS		STATUS (Check one)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

Send correspondence to:	Direct Telephone Calls to: (name and telephone number)
Raymond A. Joao 122 Bellevue Place Yonkers, New York 10703	(212) 278-1857 (Office) (914) 969-2992 (Home)

201	Full name of inventor	Family Name JOAO	First Given Name RAYMOND	Second given name ANTHONY
	Residence & Citizenship	City Yonkers	State or Foreign Country New York	Country of Citizenship U.S.A.
	Post Office Address	Post Office Address 122 Bellevue Place	City Yonkers	State & Zip Code/Country New York 10703/ U.S.A.
202	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
203	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
204	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
205	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country

NY2-74129.1

Docket No.: RJ008

206	Full name of inventor	Family Name	First Given Name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
207	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
208	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
209	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
210	Full name of inventor	Family Name	First Given Name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
211	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country
212	Full name of inventor	Family name	First given name	Second given name
	Residence & Citizenship	City	State or Foreign Country	Country of citizenship
	Post Office Address	Post Office Address	City	State & Zip Code/Country

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 201 [signature]	Signature of Inventor 202	Signature of Inventor 203
Date 7/18/96	Date	Date
Signature of Inventor 204	Signature of Inventor 205	Signature of Inventor 206
Date	Date	Date
Signature of Inventor 207	Signature of Inventor 208	Signature of Inventor 209
Date	Date	Date
Signature of Inventor 210	Signature of Inventor 211	Signature of Inventor 212
Date	Date	Date

NY2-74129.1

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR

Attorney's Docket No. RJ008

Applicant or Patentee: RAYMOND ANTHONY JOAO
Serial or Patent No.:
Filed or Issued:
For: REMOTE-CONTROLLED CONTROL, MONITORING AND/OR SECURITY APPARATUS AND METHOD FOR VEHICLES, MOTOR VEHICLES, MARINE VEHICLES AND VEHICLES, AIRCRAFT, RECREATIONAL VEHICLES, RESIDENTIAL PREMISES AND/OR COMMERCIAL PREMISES

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled
described in REMOTE-CONTROLLED CONTROL, MONITORING AND/OR SECURITY APPARATUS AND METHOD FOR VEHICLES, MOTOR VEHICLES, MARINE VEHICLES AND VEHICLES, AIRCRAFT, RECREATIONAL VEHICLES, RESIDENTIAL PREMISES AND/OR COMMERCIAL PREMISES

[X] the specification filed herewith
[ ] application Serial No. _____, filed _____
[ ] Patent No. _____, issued _____

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

[X] no such person, concern, or organization
[ ] persons, concerns or organizations listed below*

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME _____

ADDRESS _____

[ ] Individual [ ] Small Business Concern [ ] Nonprofit Organization

FULL NAME _____

ADDRESS _____

[ ] Individual [ ] Small Business Concern [ ] Nonprofit Organization

FULL NAME _____

ADDRESS _____

[ ] Individual [ ] Small Business Concern [ ] Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

RAYMOND ANTHONY JOAO		
NAME OF INVENTOR	NAME OF INVENTOR	NAME OF INVENTOR
Raymond Anthony Joao		
Signature of Inventor	Signature of Inventor	Signature of Inventor
7/18/96		
Date	Date	Date

MY2-74133.1

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

Bib Data Sheet

CONFIRMATION NO. 4303

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/277,935	03/29/1999 RULE	340	2632	RJ015

APPLICANTS

RAYMOND ANTHONY JOAO, YONKERS, NY

** CONTINUING DATA *****

~~THIS APPLICATION~~

** FOREIGN APPLICATION

This application is a Continuation of U.S. application serial No. 08/683,828 filed 07/18/1996 PAT 5,917,405, which is a CIP of application 08/587,628 filed 01/17/1996 now Abandoned, which is a Continuation of application 08/489,238 filed 06/12/1995 PAT 5,513,244, which is a Continuation of application 08/073,755 filed 06/08/1993 now Abandoned, and which U.S. application 08/683,828 filed 07/18/1996 PAT 5,917,405 is also a CIP of application 08/622,749 filed 03/27/1996 now Abandoned.

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
** 04/19/1999

		STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
Foreign Priority claimed	☐ yes ☑ no	NY	18	20	3
35 USC 119 (a-d) conditions met	☐ yes ☑ no ☐ Met after Allowance				
Verified and Acknowledged	Examiner's Signature Initials				

ADDRESS

RAYMOND A JOAO
122 BELLEVUE PLACE
YONKERS , NY 10703

TITLE

CONTROL APPARATUS AND METHOD FOR VEHICLES AND/OR FOR PREMISES

FILING FEE RECEIVED	FEES: Authority has been given in Paper	
1991	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
Washington, DC 20231
www.uspto.gov

Bib Data Sheet

CONFIRMATION NO. 4303

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/277,935	03/29/1999 RULE	340	2632	RJ015

APPLICANTS

RAYMOND ANTHONY JOAO, YONKERS, NY;

**** CONTINUING DATA ***************************

This application is a CON of 08/683,828 07/18/1996 PAT 5,917,405
which is a CIP of 08/587,628 01/17/1996 ABN
which is a CON of 08/489,238 06/12/1995 PAT 5,513,244
which is a CON of 08/073,755 06/08/1993 ABN

**** FOREIGN APPLICATIONS *********************

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
** 04/19/1999

Foreign Priority claimed	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
☐ yes ☐ no	NY	18	20	3
35 USC 119 (a-d) conditions met ☐ yes ☐ no ☐ Met after Allowance				
Verified and Acknowledged Examiner's Signature Initials				

ADDRESS

RAYMOND A JOAO
122 BELLEVUE PLACE
YONKERS ,NY 10703

TITLE

CONTROL APPARATUS AND METHOD FOR VEHICLES AND/OR FOR PREMISES

FILING FEE RECEIVED	FEES: Authority has been given in Paper	
1991	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

09/1999 SCARMICH 00000001 09277935
01:201 380.00 OP

PTO-1556
(5/87)

*PO: 1998-433-214/80404

10/

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 2000

Application or Docket Number
09/217,935

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS		
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	minus 20=	*
INDEPENDENT CLAIMS	minus 3 =	*
MULTIPLE DEPENDENT CLAIM PRESENT		☐

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY TYPE ☐	RATE	FEE	OR	OTHER THAN SMALL ENTITY	RATE	FEE
	BASIC FEE	355.00	OR		BASIC FEE	710.00
	X$ 9=		OR		X$18=	
	X40=		OR		X80=	
	+135=		OR		+270=	
	TOTAL		OR		TOTAL	

CLAIMS AS AMENDED - PART II

AMENDMENT A	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR		(Column 3) PRESENT EXTRA
Total	* 33	Minus	33	=	1
Independent	* 1	Minus	*** 3	=	2
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐	

SMALL ENTITY	RATE	ADDITIONAL FEE	OR	OTHER THAN SMALL ENTITY	RATE	ADDITIONAL FEE
	X$ 9=		OR		X$18=	
	~~X40=~~	840	OR		X80=	
	+135=		OR		+270=	
	TOTAL ADDIT. FEE		OR		TOTAL ADDIT. FEE	

AMENDMENT B	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR		(Column 3) PRESENT EXTRA
Total	*	Minus	**	=	
Independent	*	Minus	***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐	

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X40=		OR	X80=	
+135=		OR	+270=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR		(Column 3) PRESENT EXTRA
Total	*	Minus	**	=	
Independent	*	Minus	***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐	

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X40=		OR	X80=	
+135=		OR	+270=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

PATENT APPLICATION FEE DETERMINATION RECORD
Effective November 10, 1998

Application or Docket Number: 09/277935

CLAIMS AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA
BASIC FEE	[redacted]	
TOTAL CLAIMS	20 minus 20=	*
INDEPENDENT CLAIMS	3 minus 3 =	*
MULTIPLE DEPENDENT CLAIM PRESENT		

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY TYPE ☐ RATE	FEE	OR	OTHER THAN SMALL ENTITY RATE	FEE
[redacted]	380.00	OR	[redacted]	760.00
X$ 9=		OR	X$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL	380	OR	TOTAL	

CLAIMS AS AMENDED - PART II

AMENDMENT A	(Column 1) [redacted]	CLAIMS REMAINING AFTER AMENDMENT	(Column 2) [redacted]	HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
	Total	* 20	Minus	** 20	=
	Independent	* 3	Minus	*** 3	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY RATE	ADDITIONAL FEE	OR	OTHER THAN SMALL ENTITY RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE	0	OR	TOTAL ADDIT. FEE	0

AMENDMENT B	(Column 1) [redacted]	CLAIMS REMAINING AFTER AMENDMENT	(Column 2) [redacted]	HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
	Total	* 20	Minus	**	=
	Independent	* 3	Minus	***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C	(Column 1) [redacted]	CLAIMS REMAINING AFTER AMENDMENT	(Column 2) [redacted]	HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
	Total	* 33 ~~40~~	Minus	** 20	= 13
	Independent	* 7 ~~4~~	Minus	*** 3	= 4
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X$ 9=	117	OR	X$18=	
X39=	156	OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE	273	OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
***If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

CLAIMS ONLY

SERIAL NO.	FILING DATE
APPLICANT(S)	

CLAIMS

	AS FILED		AFTER 1st AMENDMENT		AFTER 2nd AMENDMENT	
	IND.	DEP.	IND.	DEP.	IND.	DEP.
1						
2						
3						
4						
5						
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TOTAL IND.						
TOTAL						

	*		*		*	
	IND.	DEP.	IND.	DEP.	IND.	DEP.
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94						
95						
96						
97						
98						
99						
100						
TOTAL IND.						
TOTAL DEP.						
TOTAL CLAIMS						

* MAY BE USED FOR ADDITIONAL CLAIMS OR AMENDMENTS

PTO-2022 (1-98)

U.S.DEP Paten

U.S. UTILITY PATENT APPLICATION

O.I.P.E.	PATENT DATE
SCANNED JG TNP Q.A. KD	APR 15 2003

APPLICATION NO.	CONT/PRIOR	CLASS	SUBCLASS	ART UNIT	EXAMINER
09/277935	D	340		2632	

RAYMOND ANTHONY JOAO

CONTROL APPARATUS AND METHOD FOR VEHICLES AND/OR FOR PREMISES

PTO-2040
12/99

PREPARED AND APPROVED FOR ISSUE 2600

ISSUING CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)						
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
340	~~539~~	340	425.5	428	540			
INTERNATIONAL CLASSIFICATION		307	10.2					
~~H04B 25/00~~								
H04B 1/08								

☐ Continued on Issue Slip Inside File Jacket

TERMINAL DISCLAIMER

☐ a) The term of this patent subsequent to ____ has been disclaimed.

☐ The term of this patent shall not extend beyond the expiration date of Patent No. 5,117,405

☐ The terminal ____ of this patent have been disclaimed.

DRAWINGS			CLAIMS ALLOWED	
Sheets Drwg.	Figs. Drwg.	Print Fig.	Total Claims	Print Claim for
20	20	15	149	1

(Assistant Examiner) (Date)

VAN TRIEU
Primary Examiner 9/24/02
(Primary Examiner) (Date)

(Legal Instruments Examiner) (Date)

NOTICE OF ALLOWANCE MAILED

9-25-02

ISSUE FEE

Amount Due $0 Date Paid 9/30/02

ISSUE BATCH NUMBER

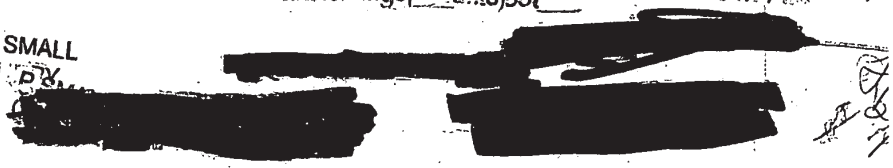
WARNING:

Information disclosed herein may be restricted. Unauthorized disclosure may be prohibited by the United States Code Title 35, Sections 122, 181 and 368. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and contractors only.

PTO-436A
6/96)

Formal Drawings (sht(s)) set

P. SMALL



(FACE)

ISSUE SLIP STAPLE AREA (for additional cross references)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	SML	71002	4/8/99
O.I.P.E. CLASSIFIER	DN	57	4/12
FORMALITY REVIEW	DM	72223	4-19-99

INDEX OF CLAIMS

✔ ..... Rejected
= ..... Allowed
— (Through numeral)... Canceled
÷ ..... Restricted
N ..... Non-elected
I ..... Interference
A ..... Appeal
O ..... Objected

If more than 150 claims or 10 actions staple additional sheet here

(LEFT INSIDE)

Staple Issue Slip Here

09/277,935
3/29/1999

INDEX OF CLAIMS

Claim Final	Claim Original	Date
115	151	
116	152	
117	153	
118	154	
119	155	
122	156	
120	157	
123	158	
125	159	
126	160	
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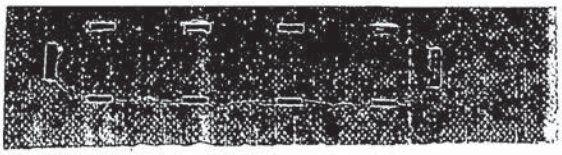
16	191	
19	192	
22	193	
23	194	
24	195	
17	196	
25	197	
20	198	
47	199	
	200	

Claim Final	Claim Original	Date
	201	
	202	
	203	
	204	
	205	
	206	

SYMBOLS

-	Rejected
=	Allowed
- (Through numeral)	Canceled
+	Restricted
N	Non-elected
I	Interference
A	Appeal
O	Objected

9



5,512,436

SEARCHED

Class	Sub.	Date	Exmr.
340	425.5	11/21/00	
	426		
	428		
	429		
	430		
	539		
	825.32		
	825.34		
	825.36		
	903		
307	10.2	11/21/00	
	10.3		
342	357.03	11/21/00	
	357.07		
	357.09		
	457		
455	422	11/21/00	
701	1	11/21/00	
	36		
	49		
	213		
UPDATE	SEARCH	4/11/01	
UPDATE	SEARCH	5/29/01	
UPDATE	SEARCH	12/20/01	

INTERFERENCE SEARCHED

Class	Sub.	Date	Exmr.
340	~~425.5~~	~~8/05/02~~ ~~5/24/01~~ 8/24/02	
	426		
	~~539~~		
	540	8/24/02	
307	10.2	~~2/24/01~~ ~~8/05/02~~	

SEARCH NOTES
(INCLUDING SEARCH STRATEGY)

	Date	Exmr.
EAST	11/21/00	
EAST	12/20/01	

(RIGHT OUTSIDE)