

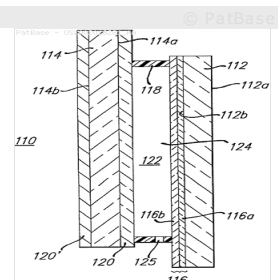
1) Family number: 28168778 (US2002018281A)

COUPLED ELECTROCHROMIC COMPOUNDS WITH PHOTOSTABLE DICATION OXIDATION STATES

**Abstract:** Source: US2002018281A Coupling of anodic electrochromic compounds by a covalent bond or a bridge link which provides for electronic communication between the coupled electrochromic compounds results in coupled electrochromic compounds which exhibit greater stability as well as electrochromic activity that differs from the monomeric electrochromic compounds. Extension of the absorption spectrum into the near-infrared region of the spectrum is frequently observed. The coupled electrochromic compounds are highly suitable for use in electrochromic media used to produce electrochromic devices.

**Probable Assignee:** GENTEX CORP

**Earliest Publication Date:** 20010619



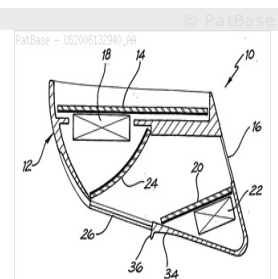
2) Family number: 30825198 (US2006132940A)

FORWARD VIEW APPARATUS FOR MOTOR VEHICLES

**Abstract:** Source: US2006132940A Forward view apparatus (10) for a motor vehicle, to enable the driver of the vehicle to view an image of objects which are located forward of the apparatus (10), includes a housing (12) in which a rear view mirror (14) is located. A two-mirror arrangement (20, 24) within the housing (12) provides an image of objects forward of the assembly (10) in a viewing portal (16). The first mirror (20) is planar and adjustable. A second mirror (24) is fixed and has a curved reflecting surface. The reflecting surface of the fixed mirror (24) is aspheric, spherical, substantially spherical, parabolic or quasi-parabolic. A window (26) is provided on the forward side of the housing (12), to enable light to pass to the two-mirror arrangement (20, 24). A shutter means to limit light reaching the apparatus (10) and means for removing water and other material from the window (26) are also disclosed.

**Probable Assignee:** MACDOUGALL C

**Earliest Publication Date:** 20040826



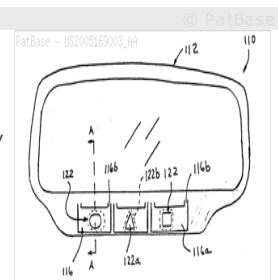
3) Family number: 31381093 (US2005169003A)

MIRROR ASSEMBLY

**Abstract:** Source: US2005169003A An interior rearview mirror assembly for a vehicle includes a casing having a human machine interface thereat. The human machine interface includes at least one user actuatable input integrally formed at a portion of the casing during the molding operation that forms the casing. The mirror assembly includes circuitry. The user actuatable input may be actuatable by a user to operate at least one element of the circuitry. The human machine interface may be at least partially at a bezel portion of the casing, or may be at least partially at a rear casing portion of the mirror casing.

**Probable Assignee:** DONNELLY CORP

**Earliest Publication Date:** 20041202



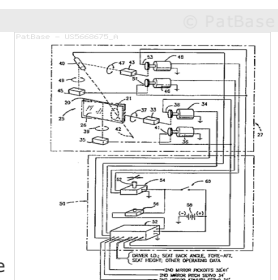
4) Family number: 14949637 (US5668675A)

OPTO-ELECTRONIC AID FOR ALIGNMENT OF EXTERIOR VEHICLE MIRRORS TO MINIMIZE BLIND SPOT EFFECTS

**Abstract:** Source: US5668675A An opto-electronic alignment method and apparatus capable of being incorporated into left and right side vehicle exterior sideview mirrors to assist the driver in adjusting the mirror to minimize the presence of any traffic blind spot on a side of the vehicle. In a first embodiment, an LED is fixed in the mirror housing and aimed at the particular vehicle blind spot but reflected at an angle through a selectively light transmissive mirror region toward the vehicle interior. The sideview mirror alignment is accomplished by the driver using a conventional mirror adjustment control. When the driver sees the beam of light, the main sideview mirror is oriented correctly to reflect objects in the blind spot to the driver's eyes. In a second embodiment, the LED is mounted for pitch and azimuth adjustment using the adjustment control. When the driver sees the beam of light, the positional coordinates of the light emitting source are employed by a microcomputer to derive positional coordinates for the correct sideview mirror orientation to enable reflection of objects in the blind zone into the driver's eyes. The sideview mirror is then moved to the positional coordinates by servo motors. In either embodiment, the driver's preferred mirror alignments and other driver adjustable vehicle operating conditions may be memorized with the mirror position coordinates and a driver ID code so that the mirror positions may be readjusted, if necessary, when the driver ID code is entered.

**Probable Assignee:** FREDRICKS RONALD J

**Earliest Publication Date:** 19960725



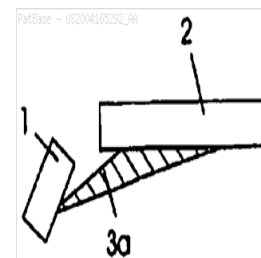
5) Family number: 15497539 (US2004165292A)

VEHICLE MIRROR

**Abstract:** Source: US2004165292A A mirror assembly for an articulated vehicle (1, 2) incorporates an image sensor which detects a specific image on the trailer so that as the vehicle (1, 2) turns left the image sensor maintains the image in its field of view and the mirror is automatically adjusted to maintain the driver's view.

**Probable Assignee:** PERKES JASON STEPHEN MR

**Earliest Publication Date:** 20021227



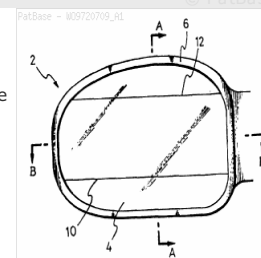
**6) Family number:** 17077147 (WO9720709A1)

#### SIDE-VIEW MIRROR ASSEMBLY FOR AUTOMOBILES

**Abstract:** Disclosed is a side-view mirror assembly (2) for automobiles including a mirror (4) having a spherical convex curved surface with a curved radius that increasingly gets smaller toward its bottom; and a plurality of guide lines (10, 12), formed horizontally at fixed locations on the mirror.

**Probable Assignee:** HWANG EUI TAE

**Earliest Publication Date:** 19970612



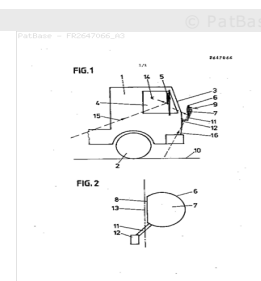
**7) Family number:** 17289289 (FR2647066A)

#### REAR-VIEW MIRROR FOR LORRIES AND UTILITY VEHICLES

**Abstract:** The rear-view mirror 6 is arranged forward of the front wall 3 of the cab 1 of the driver of a motor vehicle. The rear-view mirror 6 is, as is normal, located outside the lateral surface of the cab 1 of the driver and allows the driver to see in the blind spot in the region of the front wheel 2. The reflective surface 7 of the rear-view mirror 6 is curved and has a radius of curvature  $9 < 800 \text{ mm}$  and  $> 250 \text{ mm}$ . The shape and arrangement of the rear-view mirror 6 guarantee an excellent reflected image and considerably enhance traffic safety.

**Probable Assignee:** PIUS GSCHWEND

**Earliest Publication Date:** 19900509



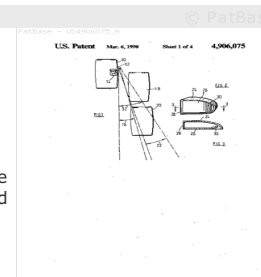
**8) Family number:** 2247299 (US4906075A)

#### VEHICLE REAR VIEW MIRROR

**Abstract:** Source: US4906075A A mirror for a motor vehicle comprises reflective means having a primary surface and a secondary surface, the reflective means being arranged to reflect light which is incident on its secondary surface. A layer on its primary surface adapted to change from a transparent state to a reflective state in response to application of a control signal so as to change the field of view or the intensity of the reflected image. In another form of the invention, the reflective means is arranged, when in a first state, to reflect light from a reflective surface having a first configuration adapted to provide a first field of view. The reflective means can be changed to a second state in which light is reflected from a reflective surface having a second configuration adapted to provide a second field of view differing from said first field of view.

**Probable Assignee:** BRITAX WINGARD LTD

**Earliest Publication Date:** 19881123



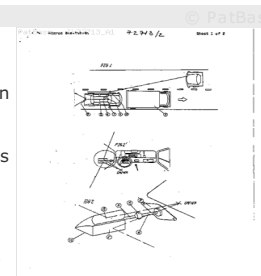
**9) Family number:** 2324402 (IL72713A1)

#### MIRROR ASSEMBLY FOR AUTOMOTIVE VEHICLES

**Abstract:** Source: IL72713A1 1. A mirror assembly for automotive vehicles, comprising: a front-view mirror section oriented to permit viewing the front region laterally of the vehicle when the assembly is mounted to the side of the vehicle; and a side-view mirror section oriented to permit viewing the side and rear regions laterally of the vehicle; said front-view mirror section comprising a first mirror to be disposed approximately vertically when the assembly is mounted to the side of the vehicle, the rear face of the first mirror being formed with a reflecting surface to reflect to the viewer the optical image at the rear region laterally of the vehicle; a second mirror supported at an approximately 45 degrees incline to the first mirror, and in front of the front mirror, said second mirror having a front face formed with a reflecting surface to reflect vertically the optical image of the front region laterally of the vehicle; and a third mirror supported parallel to, but vertically spaced from said first mirror and having its rear face formed with a reflecting surface to reflect to the viewer the optical image reflected from the second mirror; said side-view mirror section comprising two further mirrors mounted below said front-view mirror section and having confronting reflecting surfaces permitting the viewer /2 - 11 - to view the side and rear regions laterally of the vehicle.

**Probable Assignee:** NIMROD BEN YEHUDA

**Earliest Publication Date:** 19881130



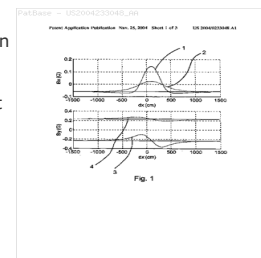
**10) Family number:** 24677030 (US2004233048A)

#### DEVICE FOR DETECTING THE PRESENCE OF OBJECTS IN A BLIND ANGLE OF A MOTOR VEHICLE

**Abstract:** Source: US2004233048A A device for detecting the presence of objects in a vehicle's blind spot. The invention relates to a device for detecting the presence of objects in a vehicle's blind spot, where the objects contain at least one ferromagnetic material whereby they distort the earth's magnetic field. The device is mounted on a vehicle that has at least one blind spot. The detection device can detect the object located in the blind spot because it is provided with means for detecting the distortion of the earth's magnetic field caused by the object. Preferably it includes a logical circuit with neural nets for processing the signals received from the sensors.

**Probable Assignee:** FICO MIRRORS SA

**Earliest Publication Date:** 20021121



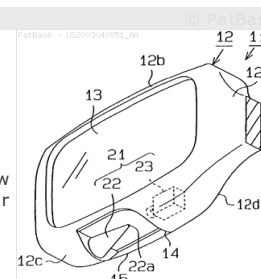
**11) Family number:** 28333433 (US2003040851A)

### VEHICLE IMAGING APPARATUS, VEHICLE MONITORING APPARATUS, AND REARVIEW MIRROR

**Abstract:** Source: US2003040851A A vehicle imaging apparatus for generating a picture of a wide area in an inexpensive manner without affecting the aesthetic appeal of the vehicle. The vehicle imaging apparatus generates a picture of a predetermined area outside a vehicle having a rearview mirror. The vehicle imaging apparatus includes a reflection mirror arranged in the rearview mirror and having a curved surface. An imaging device is arranged in the rearview mirror to generate a picture from an image reflected on the reflection mirror. The rearview mirror is located on the passenger side of the vehicle and has a housing. The reflection mirror is arranged in a lower portion of the rearview mirror so that an upper portion of the reflection mirror is covered by the housing and a portion excluding the upper portion is exposed.

**Probable Assignee:** TOKAI RIKI CO LTD

**Earliest Publication Date:** 20030226



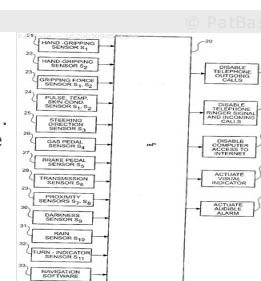
**12) Family number:** 28517164 (US2003096593A)

### SAFETY CONTROL SYSTEM FOR VEHICLES

**Abstract:** Source: US2003096593A A safety control system for vehicles including a telephone and sensors for sensing a potentially dangerous condition and for automatically disabling the telephone when sensing such condition. The sensors include two sensors mounted on a steering member to be gripped by the two hands of the driver of the vehicle and effective to disable an operation of the telephone when the two hands of the driver are not sensed as gripping the steering member while the vehicle is in motion. The sensors may also disable the telephone, and/or actuate a signaling device, when sensing other driver conditions or vehicle conditions in which the distraction of the driver by a telephone conversation could increase the risk of accidents.

**Probable Assignee:** ACT IP

**Earliest Publication Date:** 20030501



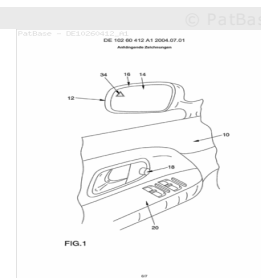
**13) Family number:** 30693432 (DE10260412A1)

### ARRANGEMENT FOR CONTROLLING MOTOR VEHICLE EXTERNAL REAR-VIEW MIRROR HAS SWITCH FOR SWITCHING BLIND SPOT OBJECT DETECTION DEVICE ON AND OFF MOUNTED INSIDE VEHICLE IN, NEAR OR ON MIRROR ADJUSTER

**Abstract:** The arrangement has an adjuster operated by the driver and coupled to the mirror glass, a device (30,32) for detecting objects in the blind spot region and a display device for objects detected in the blind spot region. A switch (38) for switching the blind spot object detection device on and off is coupled to the device and is mounted inside the vehicle in, near or on the mirror adjuster.

**Probable Assignee:** VOLKSWAGEN GROUP

**Earliest Publication Date:** 20040701



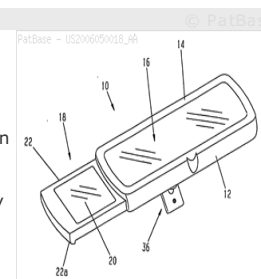
**14) Family number:** 30727798 (US2006050018A)

### ACCESSORY SYSTEM FOR VEHICLE

**Abstract:** Source: US2006050018A An accessory system for a vehicle includes an interior rearview mirror assembly and a display screen that is extendable and retractable relative to a casing. The display screen is slidably mounted at the casing and slidable in a direction generally parallel to a length axis of the reflective element between a non-use position, where the video display screen is positioned substantially within the casing, and a use position, where the video display screen is substantially extended from a side of the casing for viewing. The display screen may be automatically extended in response to an activating event. The accessory system may include an accessory module, which may comprise multiple sub-modules that may be selected to provide the desired accessory content to the accessory module.

**Probable Assignee:** DONNELLY CORP

**Earliest Publication Date:** 20040715



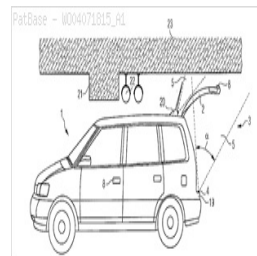
**15) Family number:** 30825200 (US2006254142A)

### METHOD AND DEVICE FOR PREVENTING INJURIES AND MATERIAL DAMAGE CAUSED BY MOTOR VEHICLE DOORS

**Abstract:** Source: US2006254142A The invention relates to the prevention of injuries and material damage caused by doors (2) of stopped and/or parked motor vehicles (1) by means of at least one camera (4) which monitors the exterior (3) of, especially the space next to and/or above, the vehicle (1). According to the invention, a mode of operation monitoring the inner (7) and/or outer (8) door handle is activated and the exterior (3) of the motor vehicle (1) is monitored by means of the camera (4) if an evaluation unit (6) detects that a fixed or variable speed-related, acceleration-related, and/or distance-related threshold value (SW) is not met, e.g. when the vehicle (1) is stopped, or if said evaluation unit (6) detects that a signal unlocking the locking mechanism of the vehicle doors (2) is received while causing an acoustic, optical, and/or haptic warning signal to be issued as soon as a person actuates or unlocks optionally in an automated manner the vehicle door (2) handle (7, 8) even though a stationary (9) or approaching (10) object has been detected in the field of vision (5) of the camera (4).

**Probable Assignee:** CONTINENTAL AUTOMOTIVE GMBH

**Earliest Publication Date:** 20040826



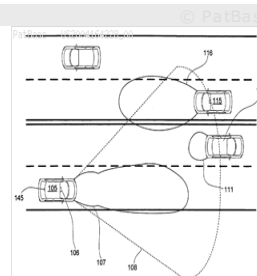
**16) Family number: 30826904** (US2004164228A)

#### AUTOMATIC VEHICLE EXTERIOR LIGHT CONTROL SYSTEM ASSEMBLIES

**Abstract:** Source: US2004164228A The present invention relates to various improvements relating to automatic vehicle equipment control systems.

**Probable Assignee:** GENTEX CORP

**Earliest Publication Date:** 20040826



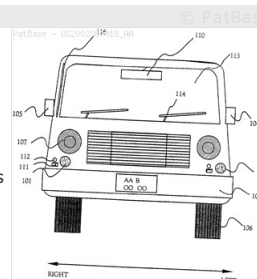
**17) Family number: 30989581** (US2002080018A)

#### DISPLAY DEVICE AND VEHICLE

**Abstract:** Source: US2002080018A A vehicle has a display device which widens the field of view (visible area) reflected by a side mirror or a back mirror mounted on the vehicle. To enable a driver driving the vehicle to confirm safety even when it is difficult for the driver to visually recognize some of objects surrounding the vehicle, a liquid crystal display device or an EL display device is provided in the side mirror (door mirror), the back mirror (room mirror) or in an interior portion of the vehicle. A camera is mounted on the vehicle and an image from the camera is displayed on the display device. Further, information read from a sensor (distance measuring sensor) having the function of measuring the distance to another vehicle, and a sensor (impact sensor) having the function of sensing an externally applied impact force larger than a predetermined value is displayed on the display device.

**Probable Assignee:** SEMICONDUCTOR ENERGY LAB CO LTD

**Earliest Publication Date:** 20020627



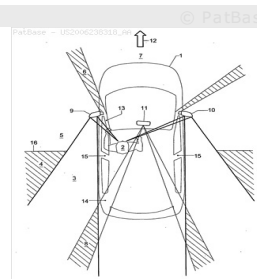
**18) Family number: 32524370** (US2006238318A)

#### WING MIRROR UNIT AND ACTUATOR

**Abstract:** Source: US2006238318A A detection system for detection of an object in a blind spot of a wing mirror unit. The detection system includes an observation unit for generating observation data, a data processing unit for processing the observation data, and an indication unit for displaying a warning signal. Internal data communication connections of the system may be disposed in a wing mirror unit so that the detection system is autonomous.

**Probable Assignee:** EATON AUTOMOTIVE BV

**Earliest Publication Date:** 20041004



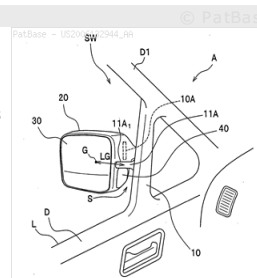
**19) Family number: 33054800** (US2006132944A)

#### VEHICLE SIDE MIRROR ASSEMBLY WITH REARWARD AND FORWARD VIEWING

**Abstract:** Source: US2006132944A Disclosed is an outer mirror in which individual components are easy to assemble and which is superior in durability. An outer mirror includes a mirror base having a protrusion which sticks out outward from a side face of a vehicle body, a shaft being placed on the protrusion, and a mirror housing being coupled to the shaft in a rotatable fashion. Furthermore, the mirror housing includes a mirror for showing an area behind the vehicle body, and an opening on its side that faces the vehicle body.

**Probable Assignee:** MURAKAMI CORP

**Earliest Publication Date:** 20060606



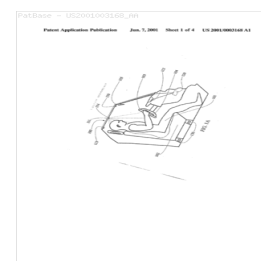
**20) Family number: 33357354** (US2001003168A)

#### VEHICULAR OCCUPANT DETECTION ARRANGEMENTS

**Abstract:** Source: US2001003168A An arrangement in a vehicle for determining vehicle occupant position relative to a fixed structure within the vehicle including an array which receives an image of a portion of the passenger compartment in which the occupant is likely to be situated and a lens arranged between the array and the portion of the passenger compartment. The image may be changed by adjusting the lens, e.g., adjusting the focal length of the lens and/or the position of the lens relative to the array, by adjusting the array, e.g., the position of the array relative to the lens, and/or by using software to perform a focusing process. By changing the image to obtain the clearest image, i.e., focusing the image, a distance between the occupant and the fixed structure can be obtained based on the parameters of the change of the image.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20010607



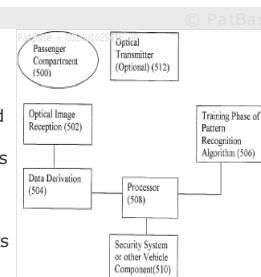
**21) Family number:** 33357358 (US2001029416A)

#### VEHICULAR COMPONENT CONTROL SYSTEMS AND METHODS

**Abstract:** Source: US2001029416A System and method for controlling operation of a vehicle or a component thereof based on recognition of a individual including a processor embodying a pattern recognition algorithm trained to identify whether a person is the individual by analyzing data derived from optical images and an optical receiving unit for receiving images including the person and deriving data from the images. The optical receiving unit provides the data to the algorithm to obtain an indication from the algorithm whether the person is the individual. A security system enables operation of the vehicle when the algorithm provides an indication that the person is an individual authorized to operate the vehicle and prevents operation of the vehicle when the algorithm does not provide an indication that the person is an individual authorized to operate the vehicle. A component adjustment system adjusts the component based on the recognition of the individual.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20011011



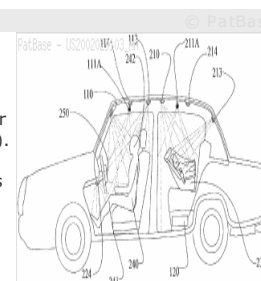
**22) Family number:** 33357365 (US2002029103A)

#### VEHICLE REAR SEAT MONITOR

**Abstract:** Source: US2002029103A Vehicular rear seat area monitoring system including at least one wave-receiving sensor arranged behind the front seat to receive waves from a space above the rear seat and a processor coupled to the sensor(s) for controlling another system in the vehicle based on the waves received by the sensor(s). The sensors may be of several different types. For example, an optical sensor can be provided which receives images including the space above the rear seat, a CCD array, a CMOS array and an optical camera including a lens can be used, and a radar sensor is also a possibility. If one of the sensors is a radar sensor, then the processor may be designed or trained to analyze motion of objects in the rear seat based on the waves received by the radar sensor and control the system based on any motion of the objects.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20020307



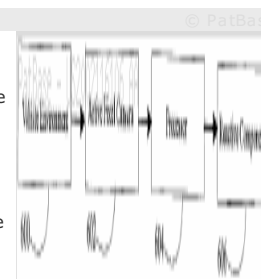
**23) Family number:** 33357369 (US2002116106A)

#### VEHICULAR MONITORING SYSTEMS USING IMAGE PROCESSING

**Abstract:** Source: US2002116106A Vehicular monitoring arrangement for monitoring an environment of the vehicle including at least one active pixel camera for obtaining images of the environment of the vehicle and a processor coupled to the active pixel camera(s) for determining at least one characteristic of an object in the environment based on the images obtained by the active pixel camera(s). The active pixel camera can be arranged in a headliner, roof or ceiling of the vehicle to obtain images of an interior environment of the vehicle, in an A-pillar or B-pillar of the vehicle to obtain images of an interior environment of the vehicle, or in a roof, ceiling, B-pillar or C-pillar of the vehicle to obtain images of an interior environment of the vehicle behind a front seat of the vehicle. The determined characteristic can be used to enable optimal control of a reactive component, system or subsystem coupled to the processor. When the reactive component is an airbag assembly including at least one airbag, the processor can be designed to control at least one deployment parameter of the airbag(s).

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20020822



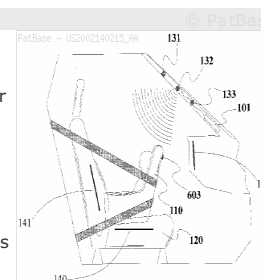
**24) Family number:** 33357373 (US2002140215A)

#### VEHICLE OBJECT DETECTION SYSTEM AND METHOD

**Abstract:** Source: US2002140215A System for obtaining information about an object in the vehicle including one or more resonators or reflectors arranged in association with the object, each resonator emitting an energy signal upon receipt of a signal at an excitation frequency, a transmitter device for transmitting signals at least at the excitation frequency of each resonator, an energy signal detector for detecting the energy signal emitted by each resonator upon receipt of the signal at the excitation frequency, and a processor coupled to the detector for obtaining information about the object upon analysis of the energy signal detected by the detector. The information obtained about the object may be a distance between each resonator and the detector, which positional information is useful for controlling components in the vehicle such as the occupant restraint or protection device. If the object is a seat, the information obtained about the seat may be an indication of the position of the seat, the position of the back cushion of the seat, the position of the bottom cushion of the seat, the angular orientation of the seat, and other seat parameters. The resonator(s) may be arranged within the object and may be a SAW device, antenna and/or RFID tag. When several resonators are used, each may be designed to emit an energy signal upon receipt of a signal at a different excitation frequency. The resonators may be tuned resonators including an acoustic cavity or a vibrating mechanical element

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20021003



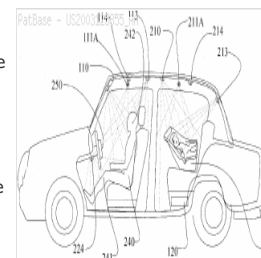
**25) Family number:** 33357383 (US2003125855A)

## VEHICULAR MONITORING SYSTEMS USING IMAGE PROCESSING

**Abstract:** Source: US2003125855A Vehicular monitoring arrangement for monitoring an environment of the vehicle including at least one active pixel camera for obtaining images of the environment of the vehicle and a processor coupled to the active pixel camera(s) for determining at least one characteristic of an object in the environment based on the images obtained by the active pixel camera(s). The active pixel camera can be arranged in a headliner, roof or ceiling of the vehicle to obtain images of an interior environment of the vehicle, in an A-pillar or B-pillar of the vehicle to obtain images of an interior environment of the vehicle, or in a roof, ceiling, B-pillar or C-pillar of the vehicle to obtain images of an interior environment of the vehicle behind a front seat of the vehicle. The determined characteristic can be used to enable optimal control of a reactive component, system or subsystem coupled to the processor. When the reactive component is an airbag assembly including at least one airbag, the processor can be designed to control at least one deployment parameter of the airbag(s).

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20030703



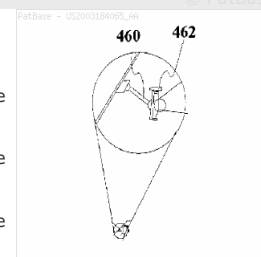
**26) Family number: 33357387 (US2003184065A)**

### REAR VIEW MIRROR MONITOR

**Abstract:** Source: US2003184065A A vehicle including a system for obtaining information about occupants of the vehicle including a rear-view mirror including a mirror part and a support for mounting the mirror part to the vehicle (such as to a windshield of the vehicle), a wave-receiving system arranged on the mirror for receiving waves from spaces above seats of the vehicle in which occupants would normally be situated and a processor coupled to the wave-receiving system and arranged to obtain information about the occupants based on the waves received by the wave-receiving system. The wave-receiving system may include an infrared receiver, a transmitter/receiver capable of transmitting and receiving waves, an ultrasonic wave receiver and/or an array for displaying infrared light reflected from or generated by the occupants. Based on the waves received by the wave-receiving system, the processor may identify or ascertain the identity of the occupants, determine the position or movement of the occupants and/or determine the distance between the wave-receiving system and the occupants. The processor may embody a pattern recognition system for obtaining information about the occupants based on training designed to create an algorithm capable of processing data on the waves received by the wave-receiving system into information about the occupants.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20031002



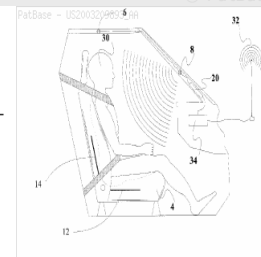
**27) Family number: 33357388 (US2003209893A)**

### OCCUPANT SENSING SYSTEM

**Abstract:** Source: US2003209893A Optical classification method for classifying an occupant in a vehicle by acquiring images of the occupant from a single camera and analyzing the images acquired from the single camera to determine a classification of the occupant. The single camera may be a digital CMOS camera, a high-power near-infrared LED, and the LED control circuit. It is possible to detect brightness of the images and control illumination of an LED in conjunction with the acquisition of images by the single camera. The illumination of the LED may be periodic to enable a comparison of resulting images with the LED on and the LED off so as to determine whether a daytime condition or a nighttime condition is present. The position of the occupant can be monitored when the occupant is classified as a child, an adult or a forward-facing child restraint.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20031113



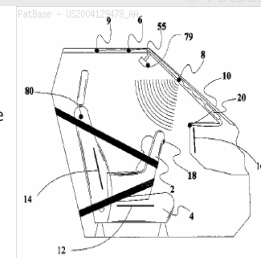
**28) Family number: 33357396 (US2004129478A)**

### WEIGHT MEASURING SYSTEMS AND METHODS FOR VEHICLES

**Abstract:** Source: US2004129478A Weight sensor for determining the weight of an occupant of a seat including a bladder arranged in a seat portion of the seat and including material or structure in an interior thereof which constrains fluid flow therein and one or more transducers for measuring the pressure of the fluid in the bladder. The material or structure might be open cell foam. The bladder may include one or more chambers, and if more than one chamber is formed, each chamber can be arranged at a different location in the seat portion of the seat.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20040708



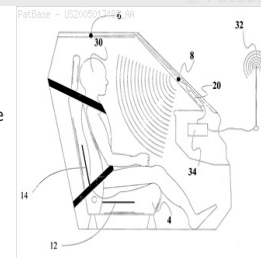
**29) Family number: 33357402 (US2005017488A)**

### WEIGHT MEASURING SYSTEMS AND METHODS FOR VEHICLES

**Abstract:** Source: US2005017488A Weight sensor for determining the weight of an occupant of a seat including a bladder arranged in a seat portion of the seat and including material or structure in an interior thereof which constrains fluid flow therein and one or more transducers for measuring the pressure of the fluid in the bladder. The material or structure might be open cell foam. The bladder may include one or more chambers, and if more than one chamber is formed, each chamber can be arranged at a different location in the seat portion of the seat.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20050127



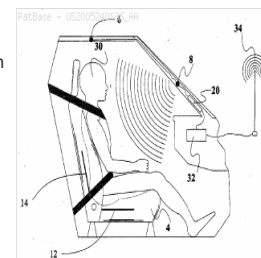
**30) Family number: 33357415 (US2005248136A)**

### METHOD FOR AIRBAG INFLATION CONTROL

**Abstract:** Source: US2005248136A Method for controlling deployment of an airbag into a passenger compartment of a vehicle including detecting a position of an occupant whose forward-facing surface will be the surface which interacts with the airbag upon its deployment, determining a desired amount of gas within the airbag during inflation of the airbag based at least in part on the detected position of the occupant, and adjusting the amount of gas within the airbag during inflation of the airbag to provide the airbag with the desired amount of gas during its inflation. Adjustment of the amount of gas within the airbag may entail varying the amount of gas being directed into the airbag based on the morphology of the occupant (inflow control) and/or controlling the outflow of gas from the airbag based on the morphology of the occupant (outflow control).

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20051110



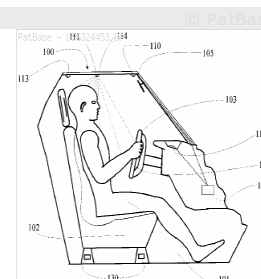
**31) Family number: 33357448 (US6324453B)**

### METHODS FOR DETERMINING THE IDENTIFICATION AND POSITION OF AND MONITORING OBJECTS IN A VEHICLE

**Abstract:** Source: US6324453B A vehicle interior monitoring system to identify, locate and monitor occupants, including their parts, and other objects in the passenger compartment and objects outside of a motor vehicle, such as an automobile or truck, by illuminating the contents of the vehicle and objects outside of the vehicle with electromagnetic, and specifically infrared, radiation and using one or more lenses to focus images of the contents onto one or more arrays of charge coupled devices (CCD arrays). Outputs from the CCD arrays are analyzed by appropriate computational means employing trained pattern recognition technologies, to classify, identify or locate the contents or external objects. In general, the information obtained by the identification and monitoring system is used to affect the operation of some other system in the vehicle. When system is installed in the passenger compartment of an automotive vehicle equipped with an airbag, the system determines the position of the vehicle occupant relative to the airbag and disables deployment of the airbag if the occupant is positioned so that he/she is likely to be injured by the deployment of the airbag.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20000706



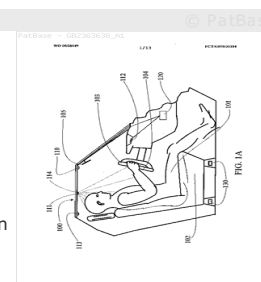
**32) Family number: 33357476 (GB2363638A)**

### METHODS FOR DETERMINING THE IDENTIFICATION AND POSITION OF AND MONITORING OBJECTS IN A VEHICLE

**Abstract:** Source: GB2363638A A vehicle interior monitoring system to identify, locate and monitor occupants, including their parts, and other objects in the passenger compartment (100) and objects outside of a motor vehicle, such as an automobile or truck, by illuminating the contents of the vehicle and objects outside of the vehicle with electromagnetic, and specifically infrared, radiation and using one or more lenses to focus images of the contents onto one or more arrays of charge coupled devices (CCD arrays) (110, 111, 112, 113, 114). Outputs from the CCD arrays (110, 111, 112, 113, 114) are analyzed by appropriate computational means (120) employing trained pattern recognition technologies, to classify, identify or locate the contents (101) or external objects. In general, the information obtained by the identification and monitoring system is used to affect the operation of some other system in the vehicle. When system is installed in the passenger compartment of an automotive vehicle equipped with an airbag, the system determines the position of the vehicle occupant relative to the airbag and disables deployment of the airbag if the occupant is positioned so that he/she is likely to be injured by the deployment of the airbag.

**Probable Assignee:** AUTOMOTIVE TECH INT

**Earliest Publication Date:** 20020102



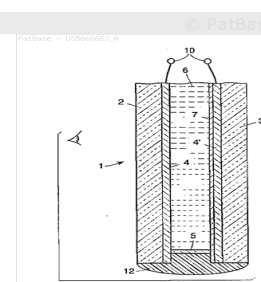
**33) Family number: 52211642 (US5668663A)**

### ELECTROCHROMIC MIRRORS AND DEVICES

**Abstract:** Source: US5668663A The present invention relates to electrochromic mirrors and devices whose electrochromic element is composed of an electrochromic solid film and an electrolyte comprising redox reaction promoters and alkali ions and/or protons.

**Probable Assignee:** DONNELLY CORP

**Earliest Publication Date:** 19951116



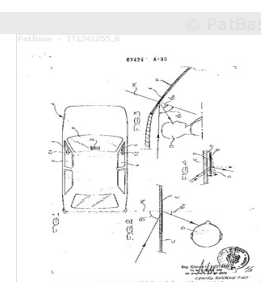
**34) Family number: 14128087 (IT1241255B)**

### REAR-VIEW DEVICE FOR VEHICLES WITH HOLOGRAPHIC OPTICAL ELEMENT

**Abstract:** Source: IT1241255B The device 1, 2 comprises a holographic optical element integrated or applied in close proximity to at least one of the passenger compartment windows, in such an arrangement that an image of the space behind the vehicle is deviated towards the viewpoint of the driver.

**Probable Assignee:** FIAT RICERCH

**Earliest Publication Date:** 19911209



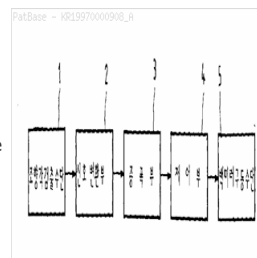
**35) Family number: 14336888 (KR19970000908A)**

## REAR-SIGHTY ANGLE EXPANSION TYPE REAR-VIEW MIRROR FOR A VEHICLE

**Abstract:** Source: KR19970000908A The present invention is predetermined by the light sensor to detect the steering angle of the steering wheel to the steering angle corresponding to the angle of outside-mirror by automatically adjusted after, the driver is without a separate key-blind spot that occur during running of the vehicle to ensure the duced to provide extended outside-mirror. To this end, the present invention is rotated in accordance with the steering angle detected by the steering angle signal to generate a pulse corresponding to the steering angle calculating means (1), and the steering angle calculating means (1) is a pulse signal generated by the signal conversion section for converting into an electrical signal, (2), the signal conversion unit (2), the predetermined value is outputted from an amplification unit for amplifying the voltage signal, (3), the steering angle of the steering wheel calculated by the calculation means (1) to recognize a steering angle automatic adjustment of outside mirror 10, a control unit for controlling square (4) and under the control of the control unit 4 drives the outside-mirror (10) drive means (5) for the outside-mirror is configured by having a.

**Probable Assignee:** DAEWOO MOTOR CO LTD

**Earliest Publication Date:** 19970121



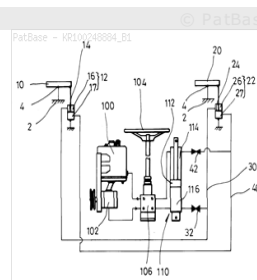
**36) Family number: 14588986** (KR100248884B)

## A REAR-VIEW MIRROR MOVED ACCORDING TO THE MOVEMENT OF A STEERING SYSTEM

**Abstract:** Source: KR100248884B This invention is the vehicle's steering angle and the opposite angle at cornering that interact to provide the cornering the rear-view mirror blind spot at the sight of the accident can be prevented from gaining a steering device and works out the side rear-view mirror, the configurations for the related: trade in automotive steering; rear-view mirror left and right central hinge is fixed to the body and left and right rear-view mirror, and, at the rear of the side is on the inside of the piston and the piston from the No. 1, 2 fluid chambers equipped with left, right cylinder is fitted with left and right cylinders's no. 1 above; the fluid actually being connected to each other via a connector (1), the second of left and right cylinder fluid will be connected to each other through the second connector, in fact, the aforementioned article 1 article 2 of the cylinder steering fluid threads and connector is above the second connector is connected to the Steering cylinder No. 1 consists of a fluid characterized by a thread and.

**Probable Assignee:** DAEWOO MOTOR CO LTD

**Earliest Publication Date:** 19990726



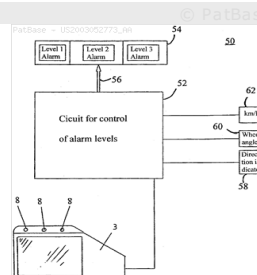
**37) Family number: 14819648** (US2003052773A)

## BLIND SPOT DETECTOR

**Abstract:** Source: US2003052773A A warning device for mounting onto a vehicle, in order to attract the attention of the driver when another vehicle (2) or object is located in a position that is wholly or partially critical for the driver. The device comprises two sources (5, 6) of laser radiation arranged at a distance from each other, a convex lens (8) arranged outside of each source and a position-sensitive radiation detector (7) arranged between the sources (5, 6). The device reacts with different levels of warning signals on the detection of direction indicator (58), angular deviation (60) of a wheel or the steering wheel, speed (62), etc., in combination.

**Probable Assignee:** SJOENELL GOERAN

**Earliest Publication Date:** 20010621



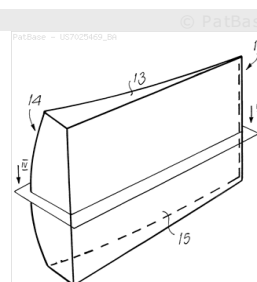
**38) Family number: 14914720** (US7025469B)

## VEHICLE REAR-VIEW MIRROR WITH WIDE VIEWING ANGLE AND REDUCED IMAGE DISTORTION

**Abstract:** Source: US7025469B A mirror with wide viewing angle and reduced image distortion, to be used as an external rear-view mirror for vehicles which is obtained monolithically by pressure injection-molding or gravity casting of a highly transparent material and its external incident surface is flat, while the reflective rear part is obtained by means of an aspheric surface which is generated by the rotation, about an axis which is ideally parallel to the centerline axis of the vehicle, of a curve which determines, with good approximation, a profile which avoids significant deformation of the reflected images.

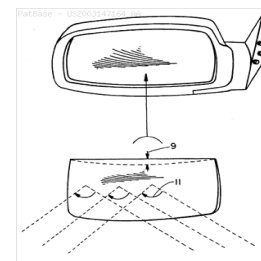
**Probable Assignee:** GIOVANNI MANFRE AND 8242

**Earliest Publication Date:** 20000925



Probable Assignee: JACK CHAN SING C

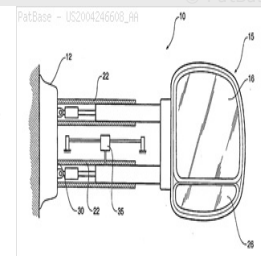
Earliest Publication Date: 20020725



41) Family number: 15957025 (US2004246608A)

#### POWER TELESCOPING VEHICLE MIRROR ASSEMBLY

**Abstract:** Source: US2004246608A A power telescoping vehicle mirror assembly (10) comprising a bracket (12) mountable to a vehicle, a mirror head (15), telescopically mounted to the bracket (12), a mirror (16) mounted to the head (15), a power telescope motor mechanism (30) for telescopically moving the head (15) with respect to the bracket (12), a position controller for controlling the extent to which the mirror head (15) extends with respect to the vehicle, a switch operable by a driver of the vehicle, the switch providing a signal to the position controller, and an input means for providing the position controller with a set point, wherein upon actuation of the switch, the head (15) telescopically moves with respect to the bracket (12) from a retracted position to a partially extended position determined by the set point. In an other embodiment, a spotter mirror, and a spotter mirror motor mechanism for adjusting the orientation of the spotter mirror with respect to the mirror head is also disclosed.



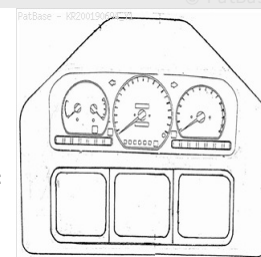
Probable Assignee: SCHEFENACKER VISION SYSTEMS AUSTRALIA PTY LTD

Earliest Publication Date: 20030508

42) Family number: 16245211 (KR200190694Y)

#### AUTO BACK MIRROR

**Abstract:** Source: KR200190694Y (1) in the devise an automobile dashboard on the car back mirror apparatus will appear as the video screen. Car right back mirror position and back directly on a car trunk KEY HALL serves as a mirror to install a convex lens WATCH CAMERA through CONTACT of an object around the world WATCH CAMERA motion integrally with the video displayed on the screen mounted on automotive instrumentation, the AUTO BACK (IM. Watch CABLE to connect the CAMERA AND THE CAMERA TO THE CONTACT between the screen and at the same time displayed on the screen being an AUTO BACK MIRROR. Until now both BACK MIRROR and the neck side: through the room BACK (guessed, eye, because the operation is very inconvenient and unsafe approaches in the left, right, rear, businesses can not be an object while driving and, moreover, always tried me, aware of an object approaching to shoot in a traffic accident in May Not only can no measure can only be as exposed to (7.37%). The present design, all as above AUTO BACK MIRROR and proactive risk approaching the left, right, back through all objects in control panel screen automatically alert the driver can recognize easily can be significantly promote the safe operation of the driving support device may be referred to as a cutting edge. The driver is to move the left and right eyes, and check BACK TOWARD THE MIRROR FOR neck BACK (check often need a room full release a large MIRROR that AUTO BACK from. In revolutionary, car car for safe driving, the history convinced the big scandal. The exploding AUTO BACK MIRROR is dramatically reduce traffic accidents, greatly contributed to promote safe driving and to prevent accidents each species. (2) an object of the subject innovation, the back of the car driver right and left eyes to recognize BACK MIRROR for driving a guess. And inaccurate, and sometimes dangerous and troublesome, sticking to a car driving BACK MIRROR of the present design by utilizing AUTO, very easy, accurate and safe to allow the vehicle to drive at the back of an object approaching to the left, right, into a movie by displaying a CAMERA TO CONTACT an AUTO INSTALL MIRROR for an automobile dashboard screen, BACK, left, right, rear, without having salpiji in eye guessed, convenient, safe driving auxiliary device that can be a safe operation. (3) the configuration of the left and right BACK (position and KEY trunk CABLE after installing HALL just above WATCH CAMERA to the line screen on a dashboard installed in front seat (Front) in the left and right, back a movie without access to the object and displaying the blind spot safety AUTO BACK (IM. The left and right rear-view mirror for more secure operation and indoors as co-adapted to maintain the current position. 4c is a front view configuration and position the screen on a dashboard that (4) the effect of the As can be seen from the above description, the present invention is installed on the neck of the operator to automotive AUTO BACK all the eye by MIRROR. Operation and access to the object through the AUTO BACK MIRROR, and convenient scientific, automatically recognize the safely domoham corresponding to safe driving and, at the same time various accidents there is an effect that can be prevented in advance. Automobile structural and operation of a car to reach a breakthrough in scientific and came in.

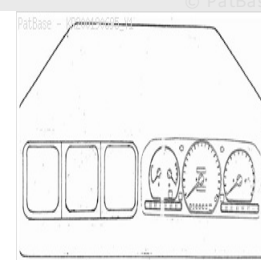


Probable Assignee: KIM DAE JUNG

Earliest Publication Date: 20000801

43) Family number: 16245216 (KR200190695Y)

#### AUTO BACK MIRROR



**Abstract:** Source: KR200190695Y (1) in the devise an automobile dashboard on the car back mirror apparatus will appear as the video screen. Car right back mirror position and back directly on a car trunk KEY HALL serves as a mirror to install a convex lens WATCH CAMERA through CONTACT of an object around the world WATCH CAMERA motion integrally with the video displayed on the screen mounted on automotive instrumentation, the AUTO BACK (IM. Watch CABLE to connect the CAMERA AND THE CAMERA TO THE CONTACT between the screen and at the same time displayed on the screen being an AUTO BACK MIRROR. Until now both BACK MIRROR and the neck side: through the room BACK (guessed, eye, because the operation is very inconvenient and unsafe approaches in the left, right, rear, businesses can not be an object while driving and, moreover, always tried me, aware of an object approaching to shoot in a traffic accident in May Not only can no measure can only be as exposed to (7.37%). The present design, all as above AUTO BACK MIRROR and proactive risk approaching the left, right, back through all objects in control panel screen automatically alert the driver can recognize easily can be significantly promote the safe operation of the driving support device may be referred to as a cutting edge. The driver is to move the left and right eyes, and check BACK TOWARD THE MIRROR FOR neck BACK (check often need a room full release a large MIRROR that AUTO BACK from. In revolutionary, car car for safe driving, the history convinced the big scandal. The exploding AUTO BACK MIRROR is dramatically reduce traffic accidents, greatly contributed to promote safe driving and to prevent accidents each species. (2) an object of the subject innovation, the back of the car driver right and left eyes to recognize BACK MIRROR for driving a guess. And inaccurate, and sometimes dangerous and troublesome, sticking to a car driving BACK MIRROR of the present design by utilizing AUTO, very easy, accurate and safe to allow the vehicle to drive at the back of an object approaching to the left, right, into a movie by displaying a CAMERA TO CONTACT an AUTO INSTALL MIRROR for an automobile dashboard screen, BACK, left, right, rear, without having salpiji in eye guessed, convenient, safe driving auxiliary device that can be a safe operation. (3) the configuration of the left and right BACK (position and KEY trunk CABLE after installing HALL just above WATCH CAMERA to the line screen on a dashboard installed in front seat (Front) in the left and right, back a movie without access to the object and displaying the blind spot safety AUTO BACK (IM. The left and right rear-view mirror for more secure operation and indoors as co-adapted to maintain the current position. 4c is a front view configuration and position the screen on a dashboard that (4) the effect of the As can be seen from the above description, the present invention is installed on the neck of the operator to automotive AUTO BACK all the eye by MIRROR. Operation and access to the object through the AUTO BACK MIRROR, and convenient scientific, automatically recognize the safely domoham corresponding to safe driving and, at the same time various accidents there is an effect that can be prevented in advance. Automobile structural and operation of a car to reach a breakthrough in scientific and came in.

**Probable Assignee:** KIM DAE JUNG

**Earliest Publication Date:** 20000801

**44) Family number: 16245220** (KR200190696Y)

**AUTO BACK MIRROR**

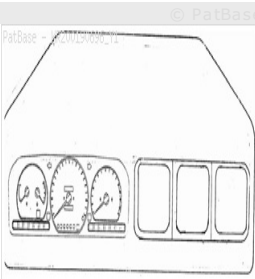
**Abstract:** Source: KR200190696Y (1) in the devise an automobile dashboard on the car back mirror apparatus will appear as the video screen. Car right back mirror position and back directly on a car trunk KEY HALL serves as a mirror to install a convex lens WATCH CAMERA through CONTACT of an object around the world WATCH CAMERA motion integrally with the video displayed on the screen mounted on automotive instrumentation, the AUTO BACK (IM. Watch CABLE to connect the CAMERA AND THE CAMERA TO THE CONTACT between the screen and at the same time displayed on the screen being an AUTO BACK MIRROR. Until now both BACK MIRROR and the neck side: through the room BACK (guessed, eye, because the operation is very inconvenient and unsafe approaches in the left, right, rear, businesses can not be an object while driving and, moreover, always tried me, aware of an object approaching to shoot in a traffic accident in May Not only can no measure can only be as exposed to (7.37%). The present design, all as above AUTO BACK MIRROR and proactive risk approaching the left, right, back through all objects in control panel screen automatically alert the driver can recognize easily can be significantly promote the safe operation of the driving support device may be referred to as a cutting edge. The driver is to move the left and right eyes, and check BACK TOWARD THE MIRROR FOR neck BACK (check often need a room full release a large MIRROR that AUTO BACK from. In revolutionary, car car for safe driving, the history convinced the big scandal. The exploding AUTO BACK MIRROR is dramatically reduce traffic accidents, greatly contributed to promote safe driving and to prevent accidents each species. (2) an object of the subject innovation, the back of the car driver right and left eyes to recognize BACK MIRROR for driving a guess. And inaccurate, and sometimes dangerous and troublesome, sticking to a car driving BACK MIRROR of the present design by utilizing AUTO, very easy, accurate and safe to allow the vehicle to drive at the back of an object approaching to the left, right, into a movie by displaying a CAMERA TO CONTACT an AUTO INSTALL MIRROR for an automobile dashboard screen, BACK, left, right, rear, without having salpiji in eye guessed, convenient, safe driving auxiliary device that can be a safe operation. (3) the configuration of the left and right BACK (position and KEY trunk CABLE after installing HALL just above WATCH CAMERA to the line screen on a dashboard installed in front seat (Front) in the left and right, back a movie without access to the object and displaying the blind spot safety AUTO BACK (IM. The left and right rear-view mirror for more secure operation and indoors as co-adapted to maintain the current position. 4c is a front view configuration and position the screen on a dashboard that (4) the effect of the As can be seen from the above description, the present invention is installed on the neck of the operator to automotive AUTO BACK all the eye by MIRROR. Operation and access to the object through the AUTO BACK MIRROR, and convenient scientific, automatically recognize the safely domoham corresponding to safe driving and, at the same time various accidents there is an effect that can be prevented in advance. Automobile structural and operation of a car to reach a breakthrough in scientific and came in.

**Probable Assignee:** KIM DAE JUNG

**Earliest Publication Date:** 20000801

**45) Family number: 16245337** (KR200190714Y)

**AUTO REAR MIRROR**



**Abstract:** Source: KR200190714Y (1) in the devise an automobile dashboard on the car back mirror apparatus will appear as the video screen. Car right back mirror position and back directly on a car trunk KEY HALL serves as a mirror to install a convex lens WATCH CAMERA through CONTACT of an object around the world WATCH CAMERA motion integrally with the video displayed on the screen mounted on automotive instrumentation, the AUTO BACK (IM. Watch CABLE to connect the CAMERA AND THE CAMERA TO THE CONTACT between the screen and at the same time displayed on the screen being an AUTO BACK MIRROR. Until now both BACK MIRROR and the neck side: through the room BACK (guessed, eye, because the operation is very inconvenient and unsafe approaches in the left, right, rear, businesses can not be an object while driving and, moreover, always tried me, aware of an object approaching to shoot in a traffic accident in May Not only can no measure can only be as exposed to (7.37%). The present design, all as above AUTO BACK MIRROR and proactive risk approaching the left, right, back through all objects in control panel screen automatically alert the driver can recognize easily can be significantly promote the safe operation of the driving support device may be referred to as a cutting edge. The driver is to move the left and right eyes, and check BACK TOWARD THE MIRROR FOR neck BACK (check often need a room full release a large MIRROR that AUTO BACK from. In revolutionary, car car for safe driving, the history convinced the big scandal. The exploding AUTO BACK MIRROR is dramatically reduce traffic accidents, greatly contributed to promote safe driving and to prevent accidents each species. (2) an object of the subject innovation, the back of the car driver right and left eyes to recognize BACK MIRROR for driving a guess. And inaccurate, and sometimes dangerous and troublesome, sticking to a car driving BACK MIRROR of the present design by utilizing AUTO, very easy, accurate and safe to allow the vehicle to drive at the back of an object approaching to the left, right, into a movie by displaying a CAMERA TO CONTACT an AUTO INSTALL MIRROR for an automobile dashboard screen, BACK, left, right, rear, without having salpiji in eye guessed, convenient, safe driving auxiliary device that can be a safe operation. (3) the configuration of the left and right BACK (position and KEY trunk CABLE after installing HALL just above WATCH CAMERA to the line screen on a dashboard installed in front seat (Front) in the left and right, back a movie without access to the object and displaying the blind spot safety AUTO BACK (IM. The left and right rear-view mirror for more secure operation and indoors as co-adapted to maintain the current position. 4c is a front view configuration and position the screen on a dashboard that (4) the effect of the As can be seen from the above description, the present invention is installed on the neck of the operator to automotive AUTO BACK all the eye by MIRROR. Operation and access to the object through the AUTO BACK MIRROR, and convenient scientific, automatically recognize the safely domoham corresponding to safe driving and, at the same time various accidents there is an effect that can be prevented in advance. Automobile structural and operation of a car to reach a breakthrough in scientific and came in.

**Probable Assignee:** KIM DAE JUNG

**Earliest Publication Date:** 20000801

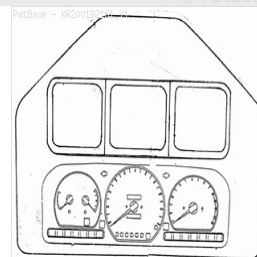
**46) Family number: 16324159** (KR200192161Y)

#### AUTO BACK MIRROR

**Abstract:** Source: KR200192161Y (1) in the devise an automobile dashboard on the car back mirror apparatus will appear as the video screen. Car right back mirror position and back directly on a car trunk KEY HALL serves as a mirror to install a convex lens WATCH CAMERA through CONTACT of an object around the world WATCH CAMERA motion integrally with the video displayed on the screen mounted on automotive instrumentation, the AUTO BACK (IM. Watch CABLE to connect the CAMERA AND THE CAMERA TO THE CONTACT between the screen and at the same time displayed on the screen being an AUTO BACK MIRROR. Until now both BACK MIRROR and the neck side: through the room BACK (guessed, eye, because the operation is very inconvenient and unsafe approaches in the left, right, rear, businesses can not be an object while driving and, moreover, always tried me, aware of an object approaching to shoot in a traffic accident in May Not only can no measure can only be as exposed to (7.37%). The present design, all as above AUTO BACK MIRROR and proactive risk approaching the left, right, back through all objects in control panel screen automatically alert the driver can recognize easily can be significantly promote the safe operation of the driving support device may be referred to as a cutting edge. The driver is to move the left and right eyes, and check BACK TOWARD THE MIRROR FOR neck BACK (check often need a room full release a large MIRROR that AUTO BACK from. In revolutionary, car car for safe driving, the history convinced the big scandal. The exploding AUTO BACK MIRROR is dramatically reduce traffic accidents, greatly contributed to promote safe driving and to prevent accidents each species. (2) an object of the subject innovation, the back of the car driver right and left eyes to recognize BACK MIRROR for driving a guess. And inaccurate, and sometimes dangerous and troublesome, sticking to a car driving BACK MIRROR of the present design by utilizing AUTO, very easy, accurate and safe to allow the vehicle to drive at the back of an object approaching to the left, right, into a movie by displaying a CAMERA TO CONTACT an AUTO INSTALL MIRROR for an automobile dashboard screen, BACK, left, right, rear, without having salpiji in eye guessed, convenient, safe driving auxiliary device that can be a safe operation. (3) the configuration of the left and right BACK (position and KEY trunk CABLE after installing HALL just above WATCH CAMERA to the line screen on a dashboard installed in front seat (Front) in the left and right, back a movie without access to the object and displaying the blind spot safety AUTO BACK (IM. Interior rear-view mirror left and right and rear-view mirror for a more secure operation to remain at the current location as a co-solvent. 4c is a front view configuration and position the screen on a dashboard that (4) the effect of the As can be seen from the above description, the present invention is installed on the neck of the operator to automotive AUTO BACK all the eye by MIRROR. Operation and access to the object through the AUTO BACK MIRROR, and convenient scientific, automatically recognize the safely domoham corresponding to safe driving and, at the same time various accidents there is an effect that can be prevented in advance. Automobile structural and operation of a car to reach a breakthrough in scientific and came in.

**Probable Assignee:** KIM DAE JUNG

**Earliest Publication Date:** 20000816



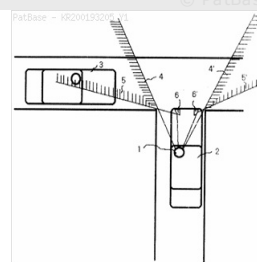
**47) Family number: 16331352** (KR200193205Y)

#### THE LEFT AND RIGHT DIRECTION OF THE FRONT CAR TO BE VIEWED BY THE VEHICLE UNIT WORN MIRROR (MACHINE TRANSLATION)

**Abstract:** Source: KR200193205Y The present design is provided in the vehicle as a mirror side mirror (6) relates to a safety device of the vehicle and rear-view mirror, only existing fitted with, and the first half of this vehicle such as a car away from the driver seat of the vehicle the vehicle is narrower as it passes through the intersection, etc.) as shown in Figure 1, 4, 4', a significant portion of the blind spot, so only after the first half of the vehicle is approaching an intersection because you can see the left and right direction occurs in frequent accidents was the situation. In order to solve this problem, or at the beginning of the car vehicle driver with the mirror (8) of about 45 degrees of the angle of inclination of the left and right mounted to the driver of the vehicle can be confirmed direction narrower, etc. intersection of one will be able to prevent accidents.

**Probable Assignee:** IM JONG PAL

**Earliest Publication Date:** 20000816



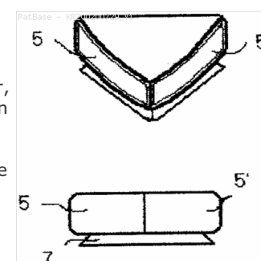
**48) Family number: 17045289** (KR200200729Y)

## REAR MOUNTING REAR-VIEW MIRROR (MACHINE TRANSLATION)

**Abstract:** Source: KR200200729Y The present design is the safety device which is provided in the rear-view mirror, relates to lateral observations for parking lot, when the backward vehicle had left, to the right of the vehicle being in the blind spot of the jets in the parking lot and that cause frequent accidental contact, in order to prevent this, and the driver of the car, etc., having an inclination angle of about 45 degrees mirror attached to the left and right direction of the vehicle tail easily seen on your vehicle in the parking lot by so can contact at the time of reverse the effect to reduce the accident rate. In addition, U-turn signal, a brake on the back of the mirror built by such accidents during traveling can be reduced.

**Probable Assignee:** IM JONG PAL

**Earliest Publication Date:** 20001016



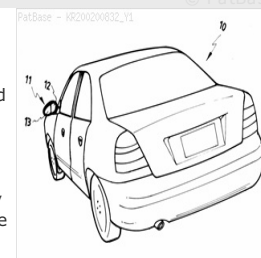
**49) Family number: 17045564** (KR200200832Y)

## SIDE MIRROR OF CAR

**Abstract:** Source: KR200200832Y The present invention relates to his side view mirror having a mirror, object of the present invention back to his side view mirror as well as at the same time the field of view of the actual size and the distance of the blind spot, so as to ensure the blind spot that contributes to safe driving by his side view mirror having a mirror to provide. As described above, the present invention for achieving the above object, in order to ensure the field of view during operation of the vehicle the vehicle rear installed on both sides of the side mirror, wherein the mirror installed to be secured to the rear view mirror for splitting a is divided at a predetermined angle so as to face each other to give another direction one side of the rear of the car to form a rear-view mirror visibility can be secured and the other side to form a blind spot blind spot to secure a field of view is characterized in that the mirror. The subject innovation as described above, in order to secure the driver for blind spot to purchase separately, it is not necessary to provide a blind spot mirror reduce the cost of the vehicle, a side mirror only a blind spot of the field of view of the rear and side and the distance to another vehicle is actual size for beginners also quickly because the lane change can be implemented by determining whether or not it is devised that contributes to safe driving.

**Probable Assignee:** LEE KYOUNG JIN

**Earliest Publication Date:** 20001016



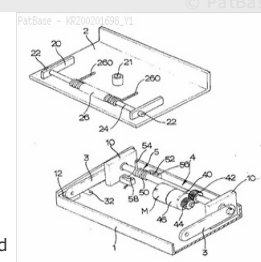
**50) Family number: 17048000** (KR200201698Y)

## REAR VIEW MIRROR FOR CAR

**Abstract:** Source: KR200201698Y The subject innovation is not visible to the driver of the vehicle when reversing the car can be eliminated after blind spot and antispasmodic. The mirror 200 is attached to the main body (1) is the cover (2) is the cover (2) is connected to the link (3)(3) and to rotate at a constant trajectory, the link 3 is provided with a driving unit so as to rotate this motor (M) of the driving part (4) and (4) for controlling the control member (5) is provided in the vehicle, the main body 1 and then guided antispasmodic guide (12) is engaged with the link (3) is fixed between the support (20, 20) has fixing 24 is installed between the elastic member 26 is supported on the lifting the one side of the cover (2) so as to impart elasticity to the one side of the link (3) a stopper for restricting the rotation of the lid (2) is attached, the link (3) (32) attached to the stopper (32) is fixed to the cover (2) through the adjustment of the position of the mirror 200 so as to adjust the angle of reflection also characterized in that that.

**Probable Assignee:** JEO KUY HO

**Earliest Publication Date:** 19981026



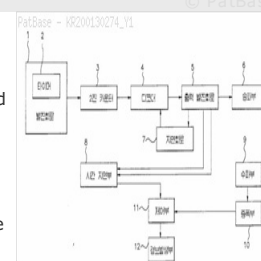
**51) Family number: 17193303** (KR200130274Y)

## ELECTRONIC TYPE REAR-VIEW MIRROR FOR AN AUTOMOBILE

**Abstract:** Source: KR200130274Y The present invention relates to a car, car of the electronic rearview mirror left and right and rear of the first to third surveillance camera of the surveillance camera of the first to third first to third prism passing through each of the first to the imaging signal, respectively, so that the THREE-CHIP via a 3CCD detected in each of the first to the first to third electrical signal while passing through the heat exchanger after sufficiently amplified by the preamplifier input to the signal processor performs signal processing such as filtering, and to output to the image signal, wherein the signal processor in a microprocessor receiving the video signal from the user via the key input unit driving the liquid crystal in accordance with the optional through the lower portion of the liquid crystal display of each display the left upper, right upper, one of the imaging signal so as to display on the full screen, effectively in the interior of the vehicle safe driving is possible while observing the blind spot.

**Probable Assignee:** SAMSUNG ELECTRONICS CO LTD

**Earliest Publication Date:** 19980330



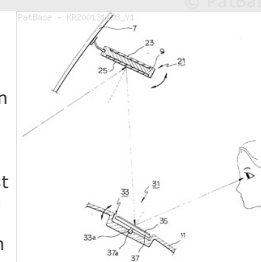
**52) Family number: 17196203** (KR200131428Y)

## A DETECTING DEVICE FOR THE FRONT DEAD ANGLE ZONE OF A VEHICLE

**Abstract:** Source: KR200131428Y The present invention relates to a blind spot of the vehicle, the vehicle (1) of the sensing device is rotatably coupled to the loop (7) (9) of the known mirror 23 of rear-view mirror of the vehicle 1 on the opposite side of first mirror arranged to perform front 25 is provided with first mirror (21), dashboard (11) formed in the receiving portion 33 is rotatably accommodated in the second mirror 35 is provided with a second mirror unit 31 includes the first mirror 21 and the second mirror 31 by adjusting the angle of the first mirror 25, obstacles existing in front of the vehicle (1) be incident on the image of the zone, and the second mirror 35 is in first mirror (25) of the incident light is reflected back toward the obstacle can be arranged to the driver, characterized in that the driver looked up without the forward visibility can be secured more can be very useful when parking, by installing an ultrasonic sensor or a CCD camera or the like to secure the forward visibility to very low in comparison to the vehicle system, there is an effect that can be installed.

**Probable Assignee:** DAEWOO MOTOR CO LTD

**Earliest Publication Date:** 19970724



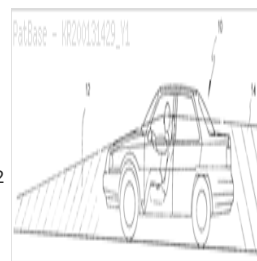
**53) Family number: 17196209** (KR200131429Y)

## A DETECTING DEVICE FOR THE FRONT AND REAR DEAD ANGLE ZONE OF A VEHICLE

**Abstract:** Source: KR200131429Y The present design relates to around the car, the rear blind spot in order to ensure the field to the rear upper side of the front glass is installed pivotably to the interior rear-view mirror 48 and an air spoiler (38) on the upper surface of the trunk of the vehicle equipped car, the interior rear-view mirror 48 is reflected from the light incident on the front and back of the car as well as can be incident on the image of the object in the image of an object which is incident on a position to be reflected back toward the driver of the vehicle, the instrument panel 20, the upper surface is rotatably installed on the downward pivoting the first sensing mirror 22 and the air spoiler (38) on both sides of the space portion 40 formed in the rear of the car, which may be different from the incident position of the object that is attached to the second and third detection mirror 42 (44); the second and third sensing the object that reflects from mirror 42 44 can be incident on the image of the vehicle rear and, at the same time incident image of an object which can reflect toward the interior rear-view mirror (48) at the location of the air spoiler 38 is installed in the space portion 40 is configured to include a fourth sensing mirror 50, around the car, the backward parking, is limited by the field of view of the rear 205b collides with an object to be able to prevent an accident caused by a .

**Probable Assignee:** DAEWOO MOTOR CO LTD

**Earliest Publication Date:** 19970724



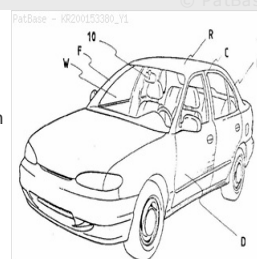
**54) Family number: 17322876** (KR200153380Y)

## MOVING APPARATUS OF INSIDE MIRROR FOR A CAR

**Abstract:** Source: KR200153380Y In order to ensure the field of view rear headlining assembly or it is attached to the front of the windshield, the rear-view mirror blind spot occur during driving, and for use in various applications in the vehicle interior side of the vehicle, and installed in the front portion guide groove 21 so as to be movable from side to side and moving means (20), moving means (20) is attached to the elastic force of the spring 32 is to perform the locking by the elasticity of the locking means (30), hameuroseo to provide to improve the above problems, according to the physical condition of the driver, to provide a convenience to the operator relates to automobile interior rear-view mirror mobile device.

**Probable Assignee:** HYUNDAI MOTOR CO LTD

**Earliest Publication Date:** 19980715



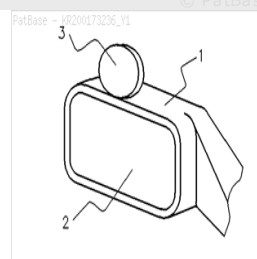
**55) Family number: 17441676** (KR200173236Y)

## THE SIDE MIRROR CAN IDENTIFY A DEAD SIGHT OF CARS

**Abstract:** Source: KR200173236Y The present design of the object during traveling of the vehicle to the vehicle operator can check relates to a rear view mirror. The present design is the side mirror of the vehicle to control electric rear-view mirror and a controller and the controller, such as the direction to the signal, and characterized in that it comprises a lever. By employing the present invention, the outside of the car it is affected by the fluid flow without the need for auxiliary mirror of the vehicle the driver has the effect that you can effectively communicate the blind spot. Blind Spot, side mirror, an automobile, a door mirror

**Probable Assignee:** LEE MAN DONG

**Earliest Publication Date:** 20000315



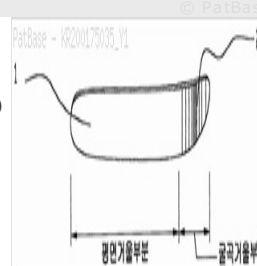
**56) Family number: 17447408** (KR200175035Y)

## WINDING BACK-MIRROR

**Abstract:** Source: KR200175035Y The present design is to eliminate the dead zone of the vehicle rear-view relates to a curved rear-view mirror. According to the present invention, a flat mirror and the curved mirror portion part (1) is made of one (2) piece (2 mirror by automotive rear object plane mirror, can know the distance by bending mirror portion (2) to be able to see the object in the blind spot. Rear-view mirror, a flat mirror, a curved mirror, a blind spot.

**Probable Assignee:** SUNG SANG JUN

**Earliest Publication Date:** 20000315



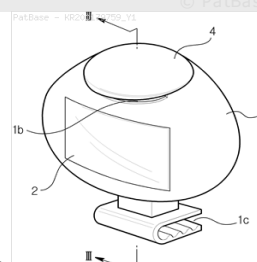
**57) Family number: 17469994** (KR200179759Y)

## AUXILIARY REAR VIEW MIRROR HAVING ASHTRAY

**Abstract:** Source: KR200179759Y The present design is the lateral direction of the vehicle is not visible to avoid critical condition to be able to expand a blind spot of the field of view of the vehicle driver and then added to avoid critical condition after using attached to the vehicle auxiliary, and more specifically relates to avoid critical condition during operation can be stored in a generated during smoking a cigarette butts ashtray relates to vehicle auxiliary after death. Ashtray according to the present invention, inside the vehicle auxiliary after having the upper opening toward the death (1a) to form a housing; wherein the body (1) of the body portion 1 and the body portion to the lower portion of the case 10 to the top of the car after death (11) provided with a fixing means for fixing and; wherein the body (1), is attached to the back surface of the driver blind spots to provide a reflection; the housing (1a) of the reflector (2) is detachably inserted housed in the ashtray and; wherein the body (1) tube 3 is hinged to one side of the top cover (4) is characterized in that it comprises, in accordance with this configuration, the rear side of the vehicle can not be found in the unconsciousness, a dead zone can, of course, to secure a field of view during operation of rubbing it off when cigarette smoking without the hassle while watching a car with the former, the rear field can be discarded because the ashtray brimming to enhance the convenience of the driver can be achieved high safety. Then, auxiliary mirror, a mirror, a secondary after death, ashtray deathbed.

**Probable Assignee:** WOO CHOON YOUNG

**Earliest Publication Date:** 20000415



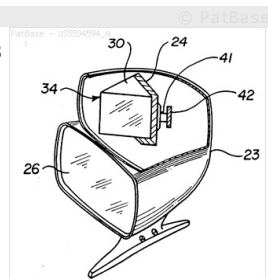
58) Family number: 20424992 (US5594594A)

#### NON-DISTORTED BLIND SPOT MIRROR USING A TRIANGULAR PRISM FOR ALL TYPES OF VEHICLES

**Abstract:** Source: US5594594A A triangular prism mirror mounted adjacent a driver of a vehicle to enable the driver to view the blind spot area without any distortion of vision. The triangular prism mirror unit has three plane surfaces, the rear surface being blocked. By blocking the rear surface of the prism, the image entering one of the front surfaces will appear on the other front surface. Therefore the triangular prism mirror, when properly mounted, provides a clear vision for the driver of a vehicle giving access to the blind spot area.

**Probable Assignee:** UNG LY WENG BUFFALO N Y US

**Earliest Publication Date:** 19960209



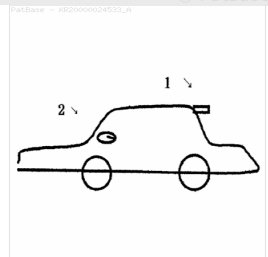
59) Family number: 24638541 (KR20000024533A)

#### MIRROR FOR VIEWING LOWER REAR VIEW WHEN VEHICLE MOVES BACKWARD

**Abstract:** Source: KR20000024533A PURPOSE: A rear view mirror is provided to make a driver watch the rear blind spot of a vehicle. CONSTITUTION: A rear view mirror delivers rear information of a vehicle to an observing mirror(2) by attaching a mirror face to a lower extended line from a roof. Therefore, a driver drives safely as a blind spot is removed when moving backward.

**Probable Assignee:** LIM DOH YON

**Earliest Publication Date:** 20000506



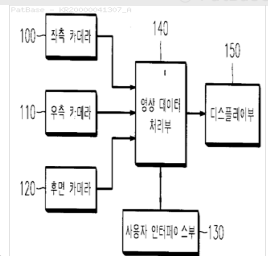
60) Family number: 24650986 (KR20000041307A)

#### ELECTRONIC VIEW MIRROR USING CAMERA FOR AUTOMOBILE

**Abstract:** Source: KR20000041307A PURPOSE: An electronic view mirror using camera for automobile is provided to cover driver's blind spot not being observed with side view mirrors and a rear view mirror and to easily secure driver's visual field of right/left side and rear side. CONSTITUTION: An electronic view mirror using camera for automobile comprises at least one camera(100, 110, or 120) which is mounted on at least one side, i.e., left side, right side, or rear side of an automobile and takes a picture of at least one object located on left side, right side, or rear side of the automobile and a display device(150) for displaying images taken by the camera(100, 110, or 120), the display device being mounted in the vicinity of a driver's seat. In addition, in case that the numbers of the camera are plural, the electronic mirror further comprises a user's interface section(130) providing a screen selection menu by which a function for displaying the images taken by the plurality of cameras(100, 110, and 120) on the display device(150) as one screen or a plurality of screens divided by splitting is selected. Also, the electronic mirror comprises an image data processing unit(140) which analyses a function selected by the screen selection menu, processes image data taken by the plurality of cameras, and then displays the image on the display device.

**Probable Assignee:** DOWON TELECOM CO LTD

**Earliest Publication Date:** 20000715



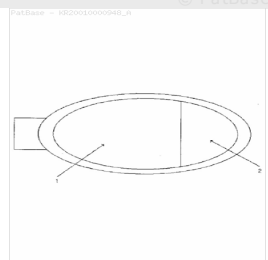
61) Family number: 27968566 (KR20010000948A)

#### REAR MIRROR FOR REDUCING BLIND SPOT

**Abstract:** Source: KR20010000948A PURPOSE: A rear mirror for reducing the blind spot is provided to reduce the blind spot of a vehicle and to contribute to environment protection. CONSTITUTION: A rear mirror for reducing the blind spot of a vehicle is composed of a main rear mirror portion(1) and a rear mirror portion for the blind spot(2). Thus, the new rear mirror for reducing the blind spot is attached on the general rear mirror. By folding about 20 angular degrees the end of the rear mirror, a complete rear view field is secured even when a driver is seated in a driver's seat and the rear blind spot is reduced.

**Probable Assignee:** HONG SOON SAM

**Earliest Publication Date:** 20010105



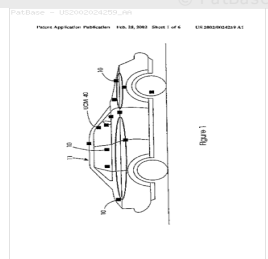
62) Family number: 28159279 (US2002024259A)

#### VEHICLE REARVIEW MIRROR SYSTEM

**Abstract:** Source: US2002024259A A vehicle control system comprises an industry standard CAN network with a number of nodes distributed around the vehicle for controlling corresponding parts of the vehicle. One such node is located in the housing of the vehicle interior rearview mirror and directly controls the reflectivity of an electro-optic mirror unit, in accordance with the state of at least one ambient light sensor and a remote keyless entry device. The node also communicates via an ISO9141 interface with a number of slave controllers such as a sun-roof control module mounted adjacent a sun-roof and a roof control module mounted in a roof housing. By this means the UCM exercises indirect control of the sun-roof in accordance with the state of a switch, and exercises indirect control of various lamps GEN1, GEN2, FLL and FRL in the roof housing in accordance with the state of switches Gen, FL and FR mounted in the roof housing or, in the case of the lamps GEN1 and GEN2, when a vehicle door is opened.

**Probable Assignee:** DONNELLY MIRRORS LTD

**Earliest Publication Date:** 19980715



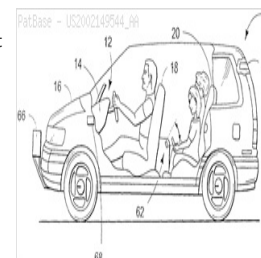
63) Family number: 28287132 (US2002149544A)

#### VEHICULAR DISPLAY SYSTEM

**Abstract:** Source: US2002149544A A display system is provided, such display system including a display with a generally horizontal display surface, and a reflecting element with an opaque reflective surface configured to reflect an image presented by the display for viewing by the vehicle occupant. The display system is configured to be mounted adjacent the front console, typically with the display embedded in the front console and the reflecting element mounted above the display at an angle relative thereto.

**Probable Assignee:** ROSEN PRODUCTS LLC

**Earliest Publication Date:** 20020110



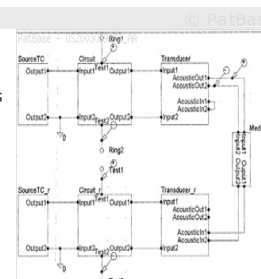
**64) Family number:** 28332838 (US2003039173A)

#### METHODS FOR REDUCING RINGING OF ULTRASONIC TRANSDUCERS

**Abstract:** Source: US2003039173A Methods for reducing ringing of dual-function ultrasonic air-coupled transducers in which at least one electrical passive circuit is applied to the transducer. The circuit may be either a linear circuit or a non-linear circuit. Different circuits can be applied to the transducer when the transducer is in a transmission mode than when the transducer is in a reception mode.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20030227



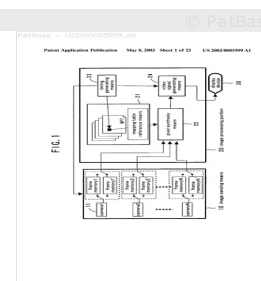
**65) Family number:** 28421876 (US2003085999A)

#### VEHICLE SURROUNDINGS MONITORING SYSTEM AND METHOD FOR ADJUSTING THE SAME

**Abstract:** Source: US2003085999A The invention provides a vehicle surroundings monitoring system for synthesizing and displaying images captured by a plurality of cameras to provide images that, near the border between partial images, are more accurate and more readily understood by the user than has been the case conventionally. In the synthesized image, a partial image captured by a first camera and a partial image captured by a second camera are adjacent to one another at their border. Near this border, the capturing directions of the first and the second cameras both substantially match the direction of the border. Consequently, images of objects near the border extend along the border, and thus do not disappear on the synthesized image.

**Probable Assignee:** PANASONIC CORP

**Earliest Publication Date:** 20030416



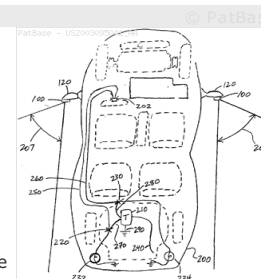
**66) Family number:** 28540824 (US2003095041A)

#### WIRELESS REMOTE VEHICLE SIGNAL INDICATOR FOR SUPPLEMENTING EXISTING VEHICLE SIGNAL INDICATORS

**Abstract:** Source: US2003095041A A remote motor vehicle signal indicator system consists of a transmitter coupled to a vehicle indication signal drive line. The transmitter wirelessly transmits a receiver activation signal corresponding to a vehicle indication signal of the vehicle indication signal drive line. The vehicle indication signal is selected from the group consisting of a turn signal, a brake signal, a reverse gear signal, and a hazard signal. The system also includes a remote vehicle signal indicator coupled to a surface outside of the vehicle and includes a signal indicator display. The remote vehicle signal indicator receives the receiver activation signal from the transmitter and, in response, activates the signal indicator display. In some variations, a power supply not coupled to the vehicle power supply powers the remote vehicle signal indicator and the transmitter is powered by the vehicle indication signal.

**Probable Assignee:** PERLMAN RIC

**Earliest Publication Date:** 20030522



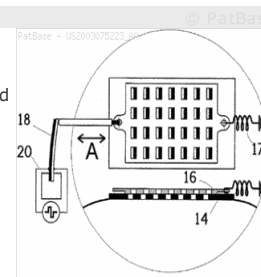
**67) Family number:** 28626375 (US2003075223A)

#### DISCHARGE VALVES FOR AIRBAGS AND AIRBAGS INCLUDING THE SAME

**Abstract:** Source: US2003075223A Discharge valve for an airbag including a fixed member adapted to be arranged in connection with or associated with the airbag and having a pattern of openings and a movable member having a pattern of openings substantially identical to the pattern of openings of the fixed member. The movable member is movable relative to and alongside the fixed member to vary the correspondence between the openings on the movable member and the openings in the fixed member to thereby vary valve openings defined by the fixed member and the movable member. Variation in the valve openings results in control and/or regulation of the outflow of gas from the airbag through the discharge valve. The members may be plates, cylinders or cones.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20030424



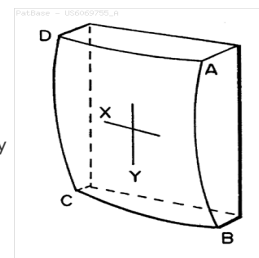
**68) Family number:** 28638390 (US6069755A)

#### REAR-VIEW MIRROR FOR VEHICLES

**Abstract:** Source: US6069755A PCT No. PCT/CN95/00018 Sec. 371 Date Jan. 6, 1997 Sec. 102(e) Date Jan. 6, 1997 PCT Filed Mar. 21, 1995 PCT Pub. No. WO95/25969 PCT Pub. Date Sep. 28, 1995A rear-view mirror for a vehicle has a convex reflecting surface composed of a plurality of distinct curved surfaces each having a selected shape that are smoothly joined with each other with a continuously varying average curvature. The average curvature increases gradually along the vertical direction from the top to the bottom of the mirror and along the transverse horizontal direction away from the body of the vehicle. The mirror provides a wide viewing around both sides and of the rear of the vehicle without blind spots and provides a clear image with little distortion that is visually acceptable to a driver.

**Probable Assignee:** LI SHIGING

**Earliest Publication Date:** 19950201



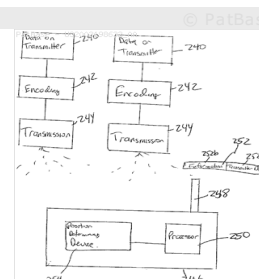
**69) Family number: 28689793 (US2002198632A)**

#### METHOD AND ARRANGEMENT FOR COMMUNICATING BETWEEN VEHICLES

**Abstract:** Source: US2002198632A Method for transferring information between a vehicle and a transmitter in which a unique pseudorandom noise signal is transmitted by the transmitter in a carrier-less fashion composed of frequencies within a pre-selected band. Information is encoded in the noise signal relating to an identification of the transmitter and a position of the transmitter and the vehicle is provided with a device for extracting the information from the noise signal. The code to use for encoding the noise signal may be selected based on the position of the transmitter so that analysis of the code, or a portion thereof, provides an indication of the position of the transmitter. Information about accidents, weather conditions, road conditions, map data and traffic control devices and about errors in a GPS signal can also be encoded in the noise signals. The transmitter may be at a fixed location or in another vehicle to thereby enable vehicle-to-vehicle communications for the purposes of collision avoidance, intelligent highway applications and the like.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20000914



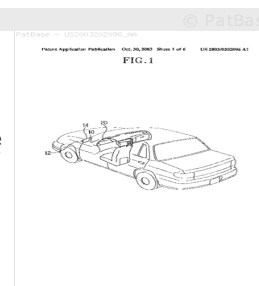
**70) Family number: 29169357 (US2003202096A)**

#### APPARATUS FOR MONITORING REAR OF VEHICLE

**Abstract:** Source: US2003202096A Disclosed is an apparatus for monitoring the rear of a vehicle capable of entirely eliminating a blind spot. The apparatus includes a camera for taking a picture of a rear of the vehicle, a liquid crystal display for receiving and displaying the image, and a control section for controlling the camera and the liquid crystal display. The camera is installed in an auxiliary turn indicator mounted on left and right front fenders of the vehicle. The turn indicator includes a partition dividing a chamber into one chamber for accommodating a turn signaling lamp and the other chamber for accommodating the camera.

**Probable Assignee:** KIA MOTORS CORP

**Earliest Publication Date:** 20031023



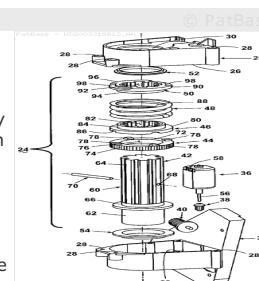
**71) Family number: 30042204 (US2003218812A)**

#### VEHICULAR MIRROR SYSTEM WITH AT LEAST ONE OF POWER-FOLD AND POWER-EXTEND FUNCTIONALITY

**Abstract:** Source: US2003218812A A motorized pivoting and extending mechanism for a vehicular mirror assembly includes, alternatively, a force-reduction mechanism for reducing the friction within the mechanism, and a slip clutch mechanism for reducing overloading of the motor when the limits of mirror extension and retraction have been reached. Mirror power functions receive electrical power and control signals through a circular array of electrical contacts incorporated into the pivot connection irrespective of the pivotal orientation of the mirror. A motor shut-off circuit is able to shut off the motor within a predetermined period of time. The mirror can be angularly adjusted upon movement of the mirror between the retracted and the extended positions to maintain a common field of view for a driver of the vehicle to prevent the extension and/or retraction of the mirror from undesirably repositioning the field of view captured by the mirror.

**Probable Assignee:** MAGNA MIRRORS OF AMERICA INC

**Earliest Publication Date:** 20031023



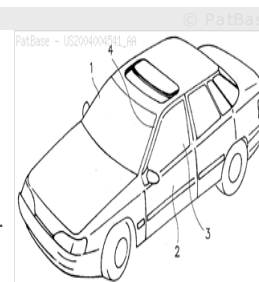
**72) Family number: 30160114 (US2004004541A)**

#### SYSTEM FOR MONITORING A DEAD ZONE RELATED TO A FRONT PILLAR OF A VEHICLE

**Abstract:** Source: US2004004541A Disclosed is a dead zone monitoring system for monitoring the dead zone of a vehicle. The dead zone monitoring system includes a photographing device disposed on the front pillar for photographing a dead zone of a driver caused by the front pillar of the vehicle; an image controller connected with the photographing device for analyzing, transforming and processing an information image that is photographed by the photographing device; and a display device connected with the image controller by using an imagery signal cable for displaying the information image provided from the image controller. The photographing device can be an optical lens, and the imagery signal cable can be also an optical cable. The display device can be an optical monitor. The dead zone monitoring system can completely monitor the dead zone caused by the front pillar of the vehicle and display an image information on the dead zone just in front of the driver's eyes, so that the driving view field is fully improved security of driving is enhanced.

**Probable Assignee:** KIA MOTORS CORP

**Earliest Publication Date:** 20040107



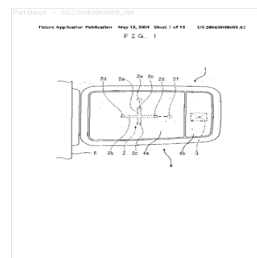
**73) Family number: 30542527 (US2004090689A)**

#### DOOR MIRROR

**Abstract:** Source: US2004090689A A door mirror which is installed on a motor vehicle's body in such a manner as to project laterally from the vehicle's body so as to reflect on a surface of the mirror what is behind the vehicle's body, wherein the mirror surface of the door mirror is divided into two parts, and thus divided mirror surfaces are respectively provided with reflection angle adjusting mechanisms so that reflection angles of the divided mirror surfaces can be independently and arbitrarily adjusted, and the divided mirror surface positioned on the outer side can be turned to project laterally from the door mirror to face outward.

**Probable Assignee:** ATRAS AUTO CO LTD

**Earliest Publication Date:** 20040505



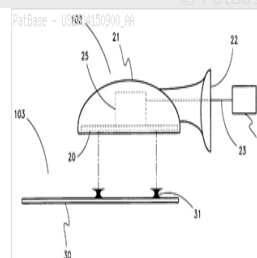
**74) Family number:** 30756777 (US2004150900A)

#### DETACHABLE REMOTELY-ADJUSTABLE EXTENSION MIRROR SYSTEM

**Abstract:** Source: US2004150900A Motion from an inboard reflective surface of a remotely-adjustable original-equipment side-view mirror unit is coupled to a detachable extension mirror unit to provide a motor vehicle driver a remotely-adjustable extended rearward view around a wide trailer or similar object blocking the original inboard rearward view from the original equipment mirror unit.

**Probable Assignee:** CAMCO MFG INC

**Earliest Publication Date:** 20040805



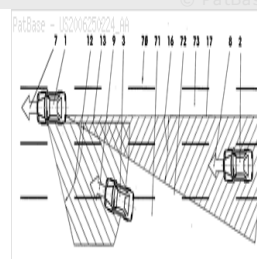
**75) Family number:** 30785060 (US2006250224A)

#### MEANS OF TRANSPORT WITH A THREE-DIMENSIONAL DISTANCE CAMERA AND METHOD FOR THE OPERATION THEREOF

**Abstract:** Source: US2006250224A A hazard detection system for vehicles with at least one side and rear area sensing device, area interpretation device, and driver reaction assistance, wherein the area sensing device detects objects in motion which are moving relative to the vehicle carrying the hazard detection system. The hazard detection system has two sensors oriented opposite to the direction of travel. It includes at least one analysis and interpretation unit per sensor to determine geometry data and motion data of the sensed object. In addition, it has at least one display unit per sensor. Moreover, it has at least one information, control, and/or regulating unit acting on the vehicle brake system, vehicle steering system, and/or other vehicle assemblies, wherein said unit is influenced by the analysis and interpretation units.

**Probable Assignee:** SCHEFENACKER VISION SYSTEMS GERMANY GMBH

**Earliest Publication Date:** 20040812



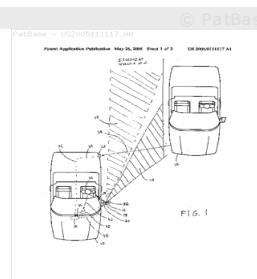
**76) Family number:** 31945545 (US2005111117A)

#### AUTOMATIC VIEWING OF VEHICLE BLIND SPOT

**Abstract:** Source: US2005111117A Observing an object within a visual blind spot of a motor vehicle includes using a mirror with at least one motor mechanically coupled thereto. Preferably, a position of the side view mirror can be adjusted by the at least one motor. An object detector detects objects within a visual blind spot of a vehicle. The object detector is operable to provide a detection signal to the at least one motor to adjust a position of the mirror to provide a view of the blind spot to a driver of the vehicle. The view can be toggled between normal viewing and blind spot viewing depending on the detection signal. The view can also be adjusted to track the object.

**Probable Assignee:** CONTINENTAL AUTOMOTIVE SYSTEMS INC

**Earliest Publication Date:** 20050526



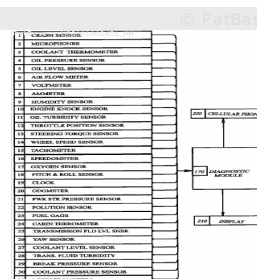
**77) Family number:** 31957524 (US2001002451A)

#### METHOD AND APPARATUS FOR CONTROLLING A VEHICULAR COMPONENT

**Abstract:** Source: US2001002451A Control system and method for controlling a part of the vehicle in which sensor systems are mounted at different locations on the vehicle, each sensor system providing a measurement related to a state of the sensor system or a measurement related to a state of the mounting location. A processor coupled to the sensor systems diagnoses the state of the vehicle based on the measurements of the sensor system, e.g., by the application of a pattern recognition technique. The processor controls the part based at least in part on the diagnosed state of the vehicle. At least one of the sensor systems may be a high dynamic range accelerometer or a sensor selected from a group consisting of a single axis acceleration sensor, a double axis acceleration sensor, a triaxial acceleration sensor and a gyroscope, and may optionally include an RFID response unit.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

**Earliest Publication Date:** 20010531



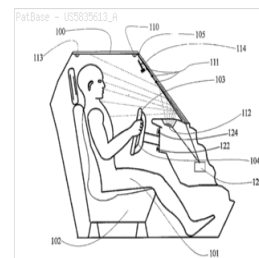
**78) Family number:** 31957605 (US5835613A)

#### OPTICAL IDENTIFICATION AND MONITORING SYSTEM USING PATTERN RECOGNITION FOR USE WITH VEHICLES

**Abstract:** Source: US5835613A A vehicle interior monitoring system to identify, locate and monitor occupants, including their parts, and other objects in the passenger compartment and objects outside of a motor vehicle, such as an automobile or truck, by illuminating the contents of the vehicle and objects outside of the vehicle with electromagnetic, and specifically infrared, radiation and using one or more lenses to focus images of the contents onto one or more arrays of charge coupled devices (CCD arrays). Outputs from the CCD arrays, are analyzed by appropriate computational means employing trained pattern recognition technologies, to classify, identify or locate the contents or external objects. In general, the information obtained by the identification and monitoring system is used to affect the operation of some other system in the vehicle. When system is installed in the passenger compartment of an automotive vehicle equipped with an airbag, the system determines the position of the vehicle occupant relative to the airbag and disables deployment of the airbag if the occupant is positioned so that he/she is likely to be injured by the deployment of the airbag.

**Probable Assignee:** AMERICAN VEHICULAR SCIENCES LLC

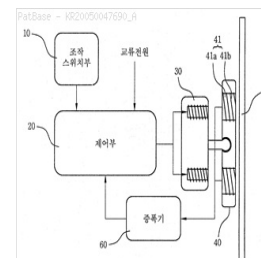
**Earliest Publication Date:** 19981110



**Abstract:** Source: KR20050047690A The present invention relates to a side mirror side mirror system, as a mechanism for driving the electromagnet, like the prior art using a further herein, due to the magnetic field generated from the magnet, using an induced electromotive force generated in the rotation angle of the side mirror can be fed back to the sensor means and, by applying the lower back beam angle to accurately adjust the fine completely blind spot and therefore detect the best lower back operation can be provided with a clock, which is due to the inclination angle when reversing the user memory functions and applications such as automatic adjusting function that can improve the reliability of operation relates to a rear view mirror system for automobiles. Byvehicle, a side mirror, electromagnets, MPC induced electromotive force sensor

**Probable Assignee:** HYUNDAI MOTOR CO LTD

**Earliest Publication Date:** 20050523



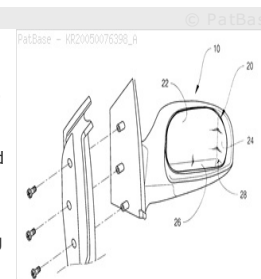
**84) Family number: 33765483 (KR20050076398A)**

#### SIDE MIRROR OF VEHICLE REMOVING BLIND SPOT

**Abstract:** Source: KR20050076398A The present invention is removed from the reflecting mirror side mirror of the vehicle, the speed of the vehicle about the top of the outer corners of the front it is installed in the rear side of the operator so as to achieve a safe operation to ensure the field of view to the side mirror, rear-view mirror of the reflecting mirror outside that certain parts of the front, respectively, and inclined in certain parts of the body formed obliquely rearward to the rear by the blind spot, so as to achieve a more safe driving automobile side mirror of a blind spot is eliminated, there is provided a reflecting mirror. The present invention for achieving this purpose, the speed of the vehicle is provided on the outside of the front side door on the top edge to the rear side of the driver so as to achieve a safe operation to ensure the field of view to the side mirror of the reflecting mirror, the reflecting mirror 20 on the outer side (24) in front of the inclined form that a certain portion is formed protruding to the lower side of the reflector 20 to form a certain portion 26 is formed recessed rearward; characterized by. Bycar, side mirror, reflector, the blind spot.

**Probable Assignee:** LEE WANG SIK

**Earliest Publication Date:** 20050726



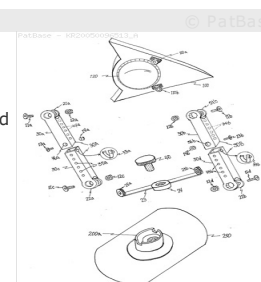
**85) Family number: 33778383 (KR20050096513A)**

#### AN AUTOMOBILE REAR-VIEW MIRROR

**Abstract:** Source: KR20050096513A The present invention relates to avoid critical condition after a passenger vehicle, and more particularly, the present invention is installed on the top surface of the trunk to eliminate the dead zone of the trunk when later below so as to match the driver's field of view, the height, the angle of the present invention by adjusting the position and close to the upper, and this room mirror that is installed in the rear to the front through the observation field of view during running, and that does not significantly affect the eliminated to safe driving when reversing the blind spot, and relates to a car after death. Another object is simply the installation to be able, and inexpensive production costs and risk, said electronic and mechanical device is not balance of these lower maintenance costs relates to avoid critical condition after the car. After Death, mirror, trunk, support keywords

**Probable Assignee:** KIM SANG SOO

**Earliest Publication Date:** 20051006



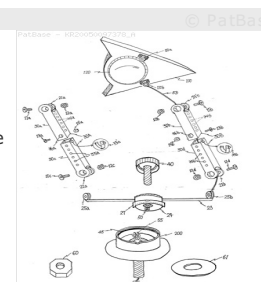
**86) Family number: 33779046 (KR20050097378A)**

#### AN AUTOMOBILE REAR-VIEW MIRROR

**Abstract:** Source: KR20050097378A After the present invention is a car equipped with a brake lights, and more particularly, relates to a unconsciousness, the present invention is installed on the top surface of the trunk to eliminate the dead zone of the trunk when later below so as to match the driver's field of view, the height, the angle of the present invention by adjusting the position and close to the upper portion, and installing the rear through the interior of the mirror when driving the front observing do not significantly affect the in the field of view, and a blind spot when reversing. In addition, the rear of the vehicle operator to the brake light by installing the braking state more accurately, and to safe driving by passing a car equipped with a brake lights after death. Another object is simply the installation to be able, and inexpensive production costs and risk, said electronic and mechanical device is not balance of these lower maintenance costs car equipped with a brake lights after the delay. Keywordsafter death, brake lights, trunk, rear view mirrors, support

**Probable Assignee:** KIM SANG SOO

**Earliest Publication Date:** 20040624



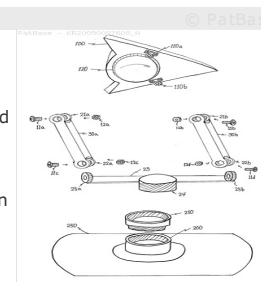
**87) Family number: 33779191 (KR20050097608A)**

#### AN AUTOMOBILE REAR-VIEW MIRROR

**Abstract:** Source: KR20050097608A The present invention relates to avoid critical condition after a passenger vehicle, and more particularly, the present invention is installed on the top surface of the trunk to eliminate the dead zone of the trunk when later below so as to match the driver's field of view, the height, the angle of the present invention by adjusting the position and close to the upper portion, and installing the rear through the interior of the mirror when driving the front observing do not significantly affect the in the field of view, and encourage them to a blind spot, when reversing, and safe driving and relates to a car after death. Another object is simply the installation to be able, and inexpensive production costs and risk, said electronic and mechanical device is not balance of these lower maintenance costs relates to avoid critical condition after the car. After Death, mirror, trunk, support keywords

**Probable Assignee:** KIM SANG SOO

**Earliest Publication Date:** 20040624



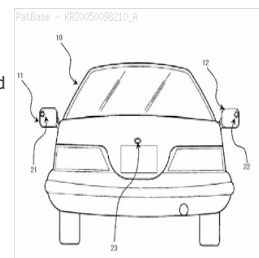
**88) Family number: 33779610 (KR20050098210A)**

#### CAMERA INTEGRATED IN THE SIDE-MIRROR OF CAR

**Abstract:** Source: KR20050098210A The present invention relates to a car, car camera device side mirror to the left and right by mounting the integrated camera is not secured or the driver's seat from the driver's blind spot and can be identified by way of a display device such as required by the operator of the vehicle so as to promote the safe operation of the peripheral device. The present design is attached to the inside of the automobile to the left and right side mirror of the vehicle to the side and rear, left and right side for outputting a video signal taken by the camera unit, and the left and right mirror at the back of the car bumper one-piece is installed in the center top of the rear of the car, and outputting a video signal taken by the camera unit, and the independent rear to confirmation of the driver in the vehicle mounted on the left and right, respectively, the video signal from the video camera and the rear camera to record video by the divided display and manipulate and position adjusting and controlling the operation of the display device is composed of a one-piece. According to the present invention, the left and right side and rear of the vehicle status information in real time by a secure video cameras can be displayed on the display device and runnability of automobiles, can greatly improve the safety. In addition, stores the image being displayed, and can determine the cause of a traffic accident or the like, has an effect that can be used to determine where the traffic accident. Bycar, camera, rear-view mirror

**Probable Assignee:** LEE JUNE YOUNG

**Earliest Publication Date:** 20051011



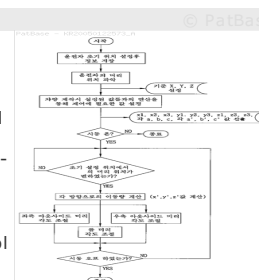
**89) Family number: 33796863** (KR20050122573A)

## CONTROL METHOD OF AUTOMOBILE MIRROR BY DRIVER POSITION SENSING

**Abstract:** Source: KR20050122573A The present invention relates to a method for controlling the position of the car mirror, and more particularly, to a driver wants the rearview mirror and outside-mirror once stored location and their head position for the head of the driver while driving the release even to move the angular position of each of the controller is installed in the vehicle via the sensor to sense the position of the driver's head and the interior rear-view mirror position of vehicle outside-mirror by giving the automatically adjusting the initial set the rear field of view the same driver is to be provided in accordance with the posture change of the driver while driving, and outside-mirror of the mirror and by automatically adjusting the position of the driver's rear visibility and blind spot smooth bar, to minimize the occurrence marketability vehicle to improve the driving stability and the position control method of the vehicle relates to a mirror. Bycar, a mirror, a position control method, sensor, controller,

**Probable Assignee:** HYUNDAI MOTOR CO LTD

**Earliest Publication Date:** 20051229



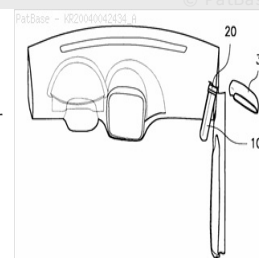
**90) Family number: 33842406** (KR20040042434A)

## AUXILIARY MIRROR FOR VEHICLE

**Abstract:** Source: KR20040042434A PURPOSE: An auxiliary mirror for a vehicle is provided to broaden the visual field of a driver by enabling the driver to see a blind spot. CONSTITUTION: An auxiliary mirror(20) for a vehicle is mounted to an A-pillar(10) in one side or both sides of a vehicle body. The position and angle of the auxiliary mirror are adjusted so that a driver can see a rear-view mirror(30) through the auxiliary mirror.

**Probable Assignee:** HYUNDAI MOBIS CO LTD

**Earliest Publication Date:** 20040520



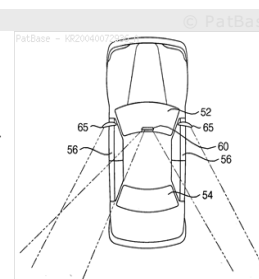
**91) Family number: 33862864** (KR20040072936A)

## ROOM MIRROR FOR VEHICLE

**Abstract:** Source: KR20040072936A PURPOSE: A room mirror for a vehicle is provided to enable a driver to safely drive the vehicle when changing a traffic lane by having a plurality of refracting angles and reflecting a rear blind spot. CONSTITUTION: A room mirror(60) for a vehicle is composed of a supporter(61) mounted to the upper center of a front glass(52), a frame(62) installed at the end of the supporter and having angle control function, and a reflecting member(63) mounted to the frame and having a plurality of refracting angles. The reflecting member includes a rear-view mirror(63a), and an auxiliary mirror(63b) joined to one side of the rear-view mirror and reflecting a rear blind spot.

**Probable Assignee:** HYUNDAI MOBIS CO LTD

**Earliest Publication Date:** 20040819



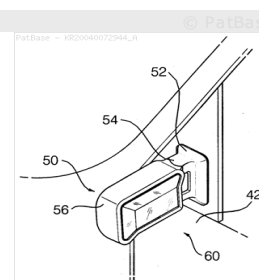
**92) Family number: 33862872** (KR20040072944A)

## SIDE MIRROR FOR VEHICLE

**Abstract:** Source: KR20040072944A PURPOSE: A side mirror for a vehicle is provided to enable a driver to safely drive the vehicle by having a plurality of refracting angles and reflecting a rear blind spot. CONSTITUTION: A side mirror for a vehicle is composed of housings mounted to both sides of the vehicle and having a rear opening, and a reflecting member mounted to the rear opening of the housing and having a plurality of refracting angles. The reflecting member includes a rear-view mirror(62), and a plurality of auxiliary mirrors(64,66) joined to one side of the rear-view mirror and reflecting a rear blind spot.

**Probable Assignee:** HYUNDAI MOBIS CO LTD

**Earliest Publication Date:** 20040819



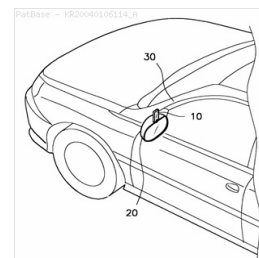
**93) Family number: 33882646** (KR20040106114A)

## REFLECTOR OBTAINING VISUAL FIELD IN A BLIND SPOT GENERATED BY A FRONT PILLAR OF A VEHICLE

**Abstract:** Source: KR20040106114A PURPOSE: A reflector for obtaining the visual field of a blind spot around a vehicle is provided to prevent the accident by enlarging the range of the front visual field against the front pillar. CONSTITUTION: A reflector(10) is installed to the side of an outside rear view mirror(20) of a vehicle, and turned around a shaft. The visual field interfering with a front pillar(30) is obtained by the reflector. The reflector is mounted to the upper part of the outside rear view mirror, and longitudinally and vertically placed. The reflector is turned around the outside rear view mirror and combined with the outside rear view mirror by a revolution joint, a bolt and a nut, or riveting. The reflector is adjusted by a driver to show the range shielded by the front pillar. The accident is prevented by reducing the blind spot with the reflector.

**Probable Assignee:** HYUNDAI MOBIS CO LTD

**Earliest Publication Date:** 20041217



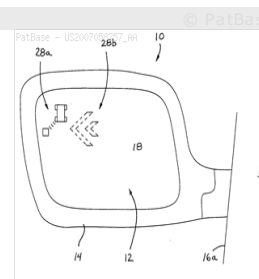
**94) Family number: 34090326 (US2007058257A)**

#### DISPLAY DEVICE FOR EXTERIOR REARVIEW MIRROR

**Abstract:** Source: US2007058257A An exterior mirror sub-assembly includes a reflective element, a back plate, and a display element having a light source that is activatable to emit light. The display element attaches to a display receiving portion of the back plate and the light source is activatable to emit light through the display receiving portion. The display receiving portion may be configured to orient the display element at a predetermined angle so that light exiting the display element when the light source is activated may be directed (a) generally away from the vehicle when the mirror assembly is mounted to the vehicle so as to be principally viewed by drivers of other vehicles or (b) generally toward the driver of the vehicle when the mirror assembly is mounted to the vehicle so as to be principally viewed by the driver of the host vehicle.

**Probable Assignee:** MAGNA MIRRORS OF AMERICA INC

**Earliest Publication Date:** 20070111



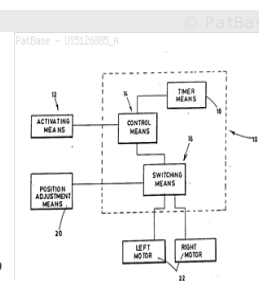
**95) Family number: 3481905 (US5126885A)**

#### CONTROL DEVICE FOR ELECTRICALLY CONTROLLED REARVIEW MIRROR

**Abstract:** Source: US5126885A There is disclosed a control device for use with at least one electrically controlled rearview mirror apparatus, each apparatus having a motor for angularly moving a rearview mirror about at least one axis, and position adjustment means for allowing an operator to adjust an initial position of the mirror, the device being able to move the mirror from the initial position to a blind spot position and to return the mirror substantially to the initial position and comprising: an activating switch for providing a start signal in response to the operator; a timer; switching relays for controlling the motor to move the mirror in a path between the initial and blind spot position; and a controller for controlling a movement cycle of the mirror, the movement cycle being initiated by the start signal, the controller causing the switching relays to move the mirror along the path for a first time period as determined by the timer so as to move the mirror between the initial and blind spot positions, to stop the mirror for a second time period as determined by the timer, and to move the mirror for a third period of time as determined by the timer so as to return the mirror from the blind spot position to the initial position. The device allows for blind spot scanning without adding to the mechanical control system of the side rearview mirror apparatus.

**Probable Assignee:** WESTECH INNOVATIONS INC

**Earliest Publication Date:** 19911226



**96) Family number: 3588210 (BE1000559A)**

#### EXTERNAL REAR VIEW MIRROR FOR VEHICLE - CAN BE IN NORMAL OR TINTED GLASS WITH TWO FLAT SURFACES AND ROUNDED CORNER TO VIEW OVERTAKING VEHICLE UNTIL ADJACENT

**Abstract:** The outside safety rear view mirror for all types of vehicles can be adjusted according to size w.r.t. the vehicle. The mirror can be mfd. in normal or tinted glass, and is made from a single piece with two flat surfaces and rounded corners. The shaped mirror has no blind spot and has the same function as a normal rear view mirror. The driver of a vehicle can see the road surface as well as the overtaking vehicle, until it is level with the overtaken vehicle. (FI).

**Probable Assignee:** NUL LEO DE

**Earliest Publication Date:** 19890131

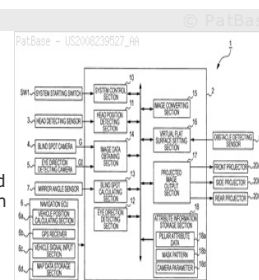
**97) Family number: 42198578 (US2008239527A)**

#### DRIVING SUPPORT METHOD AND DRIVING SUPPORT APPARATUS

**Abstract:** Source: US2008239527A A driving support method and apparatus for displaying, on a medial side of a pillar of the vehicle, an image of an area which is hidden as a blind spot in a rear-view mirror mounted on or in a vehicle, when looking in the mirror from the driver's position and which is created by the pillar. The apparatus detects a head position of a driver, detects the angle of the rear-view mirror, calculates the area which is hidden as the blind spot on the basis of the detected driver's head position and the detected angle of the rear-view mirror, and projects an image of the area corresponding to the blind spot onto the pillar, the projected image being formed from image data which is obtained from a blind spot camera mounted on the vehicle.

**Probable Assignee:** AISIN AW CO LTD

**Earliest Publication Date:** 20081001



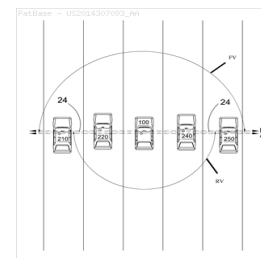
**98) Family number: 57467442 (US2014307093A)**

#### VISUAL POSITIONING WITH DIRECTION ORIENTATION NAVIGATION SYSTEM

**Abstract:** Source: US2014307093A A visualization system is provided for permitting a driver of a vehicle to observe a 180 degree rearward view of his or her vehicle and surroundings. The visualization system can include a display device which provides a 180 degree substantially rearward view. The 180 degree substantially rearward view can be seamless and/or undistorted. The display device can be positioned within the vehicle in front of the driver. The display device can be mounted on the inside surface of a windshield of the vehicle. At least a portion of the display device can be positioned above the eyes of the driver of the vehicle when the driver is seated in the driver's seat of the vehicle.

**Probable Assignee:** TOBBY JOE TRUSTEE OF TOBBY JOE REVOCABLE TRUST

**Earliest Publication Date:** 20140925



**99) Family number: 8367318** (US5526195A)

## REAR-VIEW SYSTEM FOR VEHICLES

**Abstract:** Source: US5526195A PCT No. PCT/GB92/01828 Sec. 371 Date Apr. 29, 1994 Sec. 102(e) Date Apr. 29, 1994 PCT Filed Oct. 7, 1992 PCT Pub. No. WO93/09007 PCT Pub. Date May 13, 1993. A rear view system for a vehicle (10) includes in combination a light transmitting member (2) and a light reflective medium (16) spatially displaced from the member. The member has a first face (4) for light emergence from which in use light rays are directed towards the medium (16) and a second face (6) for light incidence, each face being disposed on a respective side of a median plane (8). The member (2) comprises a plurality of elemental prismatic sections, the prismatic angles of the elemental sections progressively changing along the length of the member whereby rays of refracted light emerging through the first face are in parallelism or substantial parallelism one with the other irrespective of the angles of incidence of the rays. The shape of the light transmitting member (2) is such as to afford a wide angular scope of view to the system thereby to enhance safety.

**Probable Assignee:** OPTICAL PERSPECTIVES LTD

**Earliest Publication Date:** 19930513

