



DRIVER FATIGUE MONITOR *MR688*

Care for driving, care for life!



ABOUT US

Hao Nai Industrial Co., Ltd.

Hao Nai is a dynamic leader in Vehicle security and convenience products and services. Hao Nai Industrial Co., Ltd. was incorporated in 2000. The Company was created to develop and distribute driver safety solutions that utilize existing software infrastructures to provide vertical applications to commercial customers and consumers. "CareDrive" is the well known brand under Hao Nai company. Except for our strong R&D team, Hao Nai has Strategic Partners in Car Manufacturing, Researching Center of famous universities, Registered Software Development Organizations, Government Technology Associations.

Our R&D personnels have been engaged in automotive electronics product development for a long time, with rich experience in DSP image processing research.

Our company's strategic product driver fatigue monitor MR688 is our new innovation, the Patent No. is: 201029044149.4, Software Copyright No. is: 2009R11L098079

MR688 has been in China as a key support product by the government, and selected by Shanghai Volkswagen, Chery Automobile Automotive safety technologies as cooperation partners.

We also have an electronics factory, where production and management staff are more than 100 employees, there are two high-standard SMT production lines.

Our competence of adaptability has enabled our products to enjoy substantial success in heterogeneous markets like America, Europe, Middle East, Asia and Africa. We have prosperously sold our products across more than 50 countries of the world. The methodology of our time-tested procedures has endowed us to provide our customers with products of consistent quality, and has enabled us to meet the challenging time-lines offered by the customers. By virtue of this, today, we enjoy an outstanding market reputation and a dignified stance among our competitors. We believe in originality and our hefty investments in R&D sector have enabled us to provide our customers with novel and innovative products. We are proud of our achievements in the technology sector and we look forward to any opportunity to work with the esteemed customers.



The image shows the front interior of a GMC vehicle. A black rectangular camera unit, the Driver Fatigue Monitor MR688, is mounted on the dashboard. White dashed lines form a rectangular frame around the camera. The dashboard features a large central touchscreen displaying a music player interface. To the left is the steering wheel with the GMC logo. The center console has handbrake and cupholders. The seats are black leather.

DRIVER FATIGUE MONITOR *MR688*

CareDrive commercial fleet safety management solution specialist,
to help the fleet reduce **90%** safety accident.





THE GLOBAL PIONEER-DRIVER FATIGUE MONITOR *MR688*

Driver Fatigue Monitor MR688 is a Driver and Vehicle Safety Product which can accurately predict and warn for driver's sleeping in driving, it is our world patent product under advanced and unique technology, "CareDrive" is the world pioneer in fatigue management industry.

It can also connect with GPS and send fatigue information to fleet management center for managers to make better management and save more cost for the enterprise. MR688 has been highly welcomed by the world market since its launch in 2010, we started this product with Military, now many military and government vehicles are using MR688. As well as we have cooperated with largest bus companies, mining companies, coal companies and insurance companies ect all over the world.

As the world pioneer in fatigue management industry, MR688 has already applied to various kinds of vehicles, such as BMW; VOLVO; GM; YULON; HONDA; CITROEN; FORD; HYUNDAI; MITSUBISHI; AUDI; TOYOTA; PORSCHE AND ECT.

Driver Fatigue Early Warning



Wake up to the dangers of driver fatigue



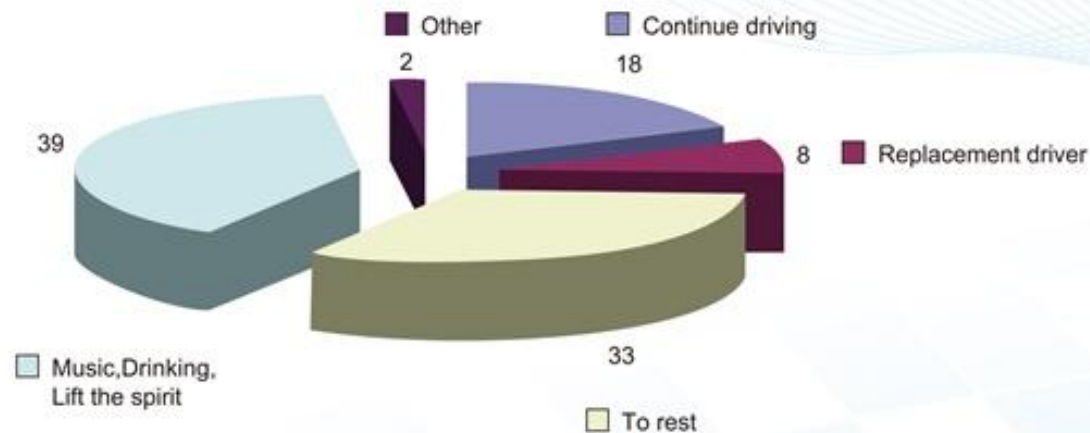
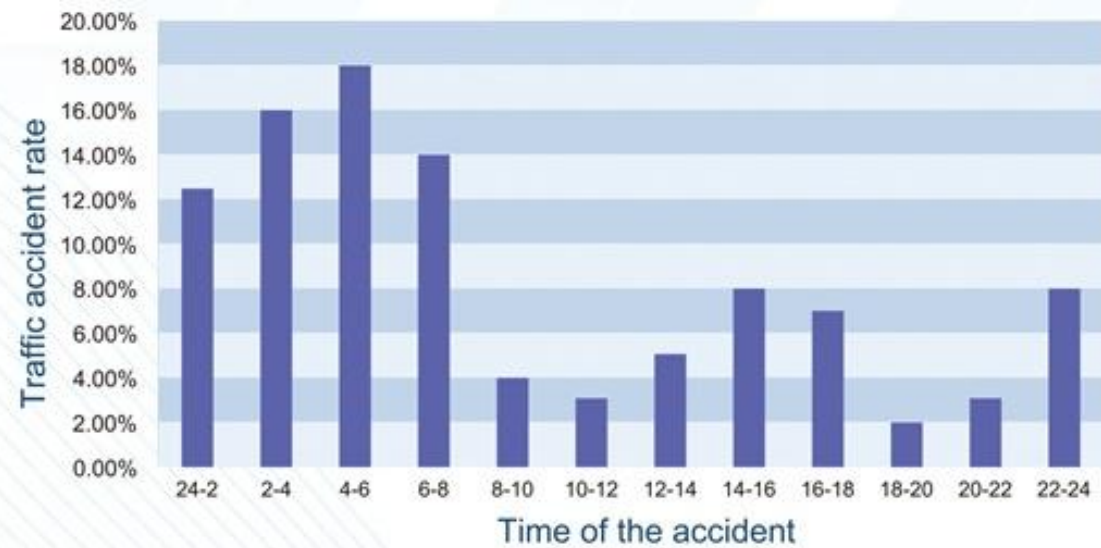
World Patent Product

Patent No.:201029044149.4

Software copyright No.:2009R11L098079

Occurrence time of fatigue driving traffic accident.

If the driver continues to drive when he/ she is in fatigue state, it is possible to go to his/her dream during driving. MR688 will send out the sharp alarming sound to wake up the driver.



Before the traffic accident, generally, driver doesn't know that he/she is in the fatigue state. Or although he/she knows that, but because of various reasons, he/she must continue to drive. The most important function of MR688 is to detect driver being fatigue state. Once the system detects driver fatigue driving, the system will send out the early warning signal.

MR688 Functionality



Despite decades of public awareness and mitigation efforts, over 70 percent of the rural highway accidents remain single vehicle events. The greatest risk occurs during twilight and night. nonetheless the MR688 works 24/7 under all conditions including if the driver is wearing sunglasses.

The MR688 is installed in the vehicle not on the driver. The system is fully automatic, with no calibration or setup process required, meaning no additional driver training or changes to standard operating procedure. The MR688 operates invisibly to the driver, and does not change or impact the driving task in any way.



When the infrared camera/sensors simply monitor your pupil's changing characteristics, it never sleeps, blinks or takes a break, and when you start exhibiting unsafe patterns, it sounds an alarm. Moreover, because we monitor the person and not the road, it works regardless of weather or roadway conditions; fog, snow, rain on and off highway. Off highway includes Maritime, farming, mining etc. anywhere a helmsman, or equipment operator is susceptible to fatigue.



You may be able to be lulled into the danger zone... but you can't fool the MR688!

The MR688 focuses entirely on the driver's alertness levels or inattention to the road ahead regardless of time of day or weather conditions. Making good drivers safer because they now have positive immediate feedback that they need to act.

Feedback from drivers

The MR688, once deployed, can raise the driver's awareness of fatigue and distraction. Instant audio feedback is available to drivers when fatigue or distraction events are detected, but fatigue warnings are modulated such that the system cannot be abused to stay awake. Raising the awareness of fatigue and distraction through driver feedback promotes recognition of the value of sleep, and which will help to reduce incidents across an organization.



MR688's 5 functions

Care for your life!



Detect vehicle speed



Driver fatigue alarm



Driver looking around alarm



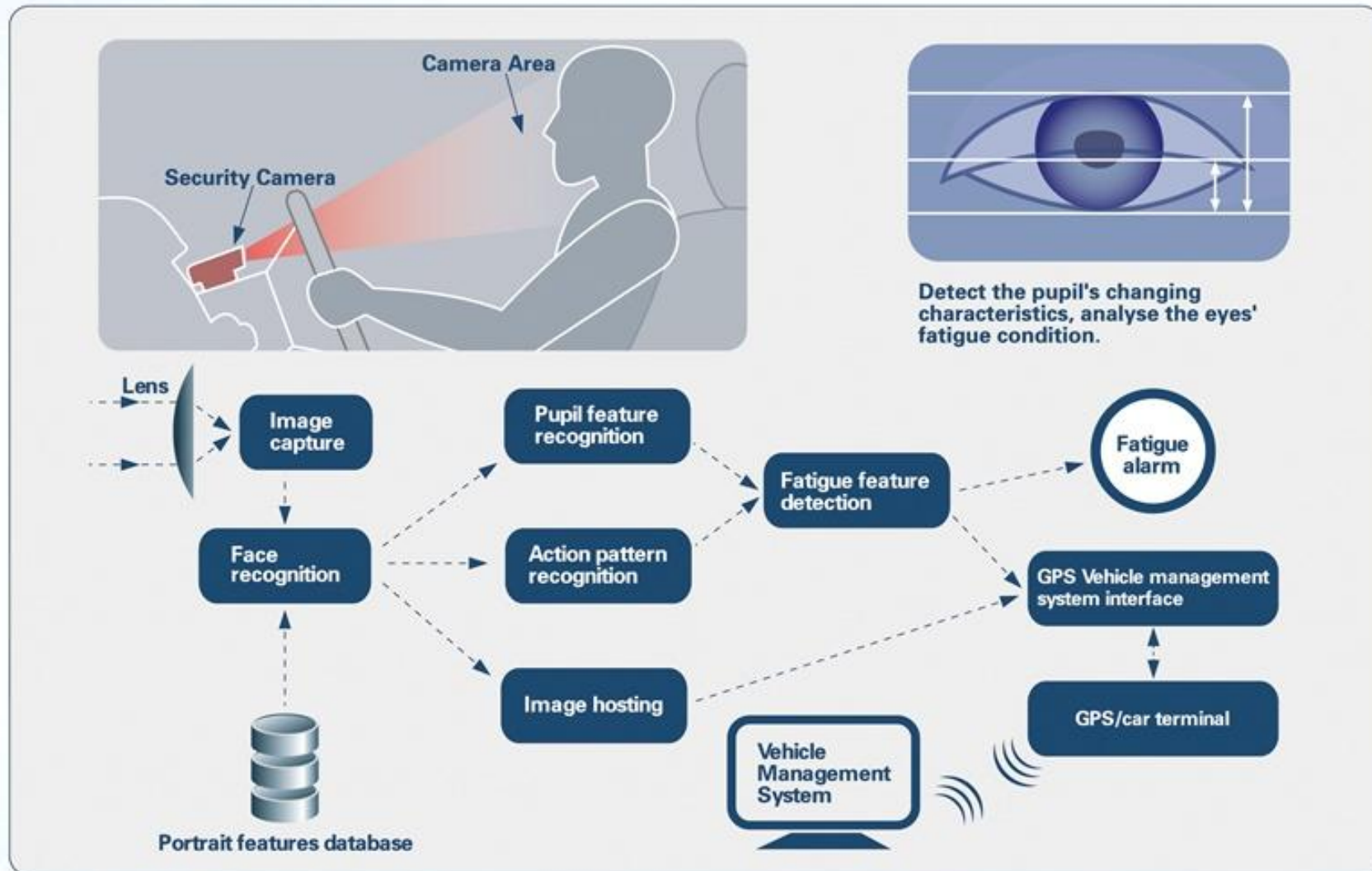
Output driver fatigue image to fleet management system.



Connect with fleet management system.

Advanced Fatigue Management

- Unique pupil identification technology
- Accurate early warning for real fatigue



Fatigue management flow chart

Fleet Management Integration

In addition to in-cab feedback, the MR688 can be integrated into fleet management. The data relating to fatigue and distraction events can be stored for later analysis, or critical data can be sent directly via GPRS or Satellite to provide real-time information to fleet management. Event reporting allows managers to pinpoint issues within the fleet and address these specifically.

Benefits of Advanced Fatigue Management



There are numerous benefits from employing the MR688 Advanced Fatigue Management beyond in-cabin alarms:

- Understanding of the current "baseline" level of fatigue in your fleet.
- Ability to manage driver scheduling better through detailed data on in-cab events, avoiding patterns which resulted in increased events.
- Detect changes in the organisation which affect driver fatigue levels and validate procedures and training events designed to reduce fatigue.
- Raise awareness of fatigue as a key issue, resulting in more effective use of rest times.
- Less fatigue related crashes. This means less driver injury, interruption, cost and lower insurance premiums.

Insurance Solutions

The MR688 offers a viable solution to accident severity where declining driver performance levels are involved. High cost accidents are unpredictable and difficult to underwrite. With the MR688 tracking drivers real-time, tiredness, distraction and nodding off at the wheel are identifiable well before a serious accident occurs. Both driver and management are alerted when these events occur avoiding the high cost and severity event.



Three different Versions of *MR688*



MR688 Civil Standard Version

Main Features: ①Signal output: No ②Power Connection: Cigarette lighter power.

③Accessory: Cigarette lighter power, magnet.

Target Customers: ①Single driver. ②4S shop. ③Insurance company. ④Car renting company.

MR688 Commercial Professional Version

Main Features: ① Can set alarm speeds and over-speed reminding through software. ② Can set the alarm sensitivity and volume by software. ③Can connect with AVL system and output signals to fleet management central control center.

Target Customers: ①Logistics company. ②Mining company. ③Bus company. ④Car renting company. ⑤Taxi Company. ⑥Insurance company. ⑦Any companies or organizations with fleet management system who want to realize better fleet management.



MR688-RS232 Version



Main Features: ①Connection method with AVL is RS232 communication protocol. ②It requires customer's AVL system has RS232 interface. ③Output driver fatigue images to fleet management system.

Target customer: ①Same as MR866 Commercial Professional Version. ②More suitable for companies with large vehicle fleet.

Above is a part information of three versions. For detail information of three versions, please kindly contact our sales people.



**Driver Fatigue
Monitor MR688**
Suit for all vehicles



- For all skins
- During the day and night

Widely used:

- At any weather
- With glasses and sunglasses



World Pioneer in Driver Fatigue Management



The patented mesh membrane pupil detection technology ensures every fatigue driving can be detected and reported immediately, even the eyes keep open while sleeping.

With a smart high-speed recognition system, the MR688 can distinguish either the driver is driving in downtown or in highway, and will adjust the alarm sensitivity level automatically.

Where does MR688 being applicated now?

- In the Car Manufacturing Field
- In the Mining Field
- In the Trucking Field
- In the Petrol Field
- In the Military Field
- In the Aviation Field
- In the Subway Field
- In the Insurance Field
- In the Medical Treatment Field
- In the Steamboat Field
- In the Auto Production Line Field
- In the Government Purchasing Field
- In the Company Business Gift Field



Flexible solutions to meet your business needs

- Manage Driver Fatigue
- Fully Automatic, Non-contact
- Detect Driver Distraction
- Real-Time Driver Feedback

Fatigue Figures

The National Highway Transport Safety Administration (NHTSA) in the US estimates that 30% to 40% of heavy vehicle accidents are caused by drowsiness.

While accounting for only around 3% of vehicles on the road, heavy vehicles are involved in over 20% of fatal accidents. The fatigue metric PERCLOS (one of which is used by the MR688) has been proven to have a 93% correlation with drowsiness.

Fatigue Fact

**You're tired and you know it...
but you continue to drive.**



This is where the MR688 can save lives because it has been programed to react to research verified physiologically dangerous fatigue levels, regardless how long you have been driving.

One in eight drivers 'nod off' at the wheel!



**DRIVER FATIGUE
CRASH ZONE
NEXT 160km**

We've all been there, and by far this is the riskiest behavior because the onset of fatigue is slow, and progressively debilitating to your ability to make good choices. Deciding when it's time to act in response to diminished levels of alertness from fatigue is a dangerous game all drivers play. It's akin to a driving version of Russian roulette. The MR688 Driver Fatigue Early Warning System simply helps you make timely better choices.

Like most laws, "Hours Of Service" (HOS) rules will never protect us, because each individual has their own fatigue threshold which changes day by day or even on a hour by hour basis. Inasmuch no HOS rule can quantify an unknown, what the driver's current level of alertness really is. In that if you drive for extended periods, no matter how well disciplined or well meaning an individual is, we're all susceptible to periodic bouts of fatigue and sleep deprivation.



Part of our worldwide distributors



MMG Limited is a mid-tier global resources company that mines, explores and develops base metal projects around the world. We have cooperated since year 2012.



RB Energy Inc., is a Canadian industrial minerals mining company with operations in Canada and Chile.



Afifi group is the largest transportation company in Israel. We have cooperated with Afifi group since year 2011. They have installed our driver fatigue monitor MR688 on all of their buses.



Newmont Mining Corporation is primarily a gold producer, with significant assets or operations in the United States, Australia, Peru, Indonesia, Ghana, New Zealand and Mexico. We have cooperated with them since year 2012.



Anglo American is one of the world's largest mining companies. They have installed driver fatigue monitor MR688 on their trucks.



SPECTRUM FATIGUE CC

Spectrum Fatigue (iFatigue) is the first company in South Africa to provide fatigue monitoring solution to the Opencast Mining Industry, we have built up long term cooperation ship since 2010.



CHILE SBS is a Korean company that is established in Chile in 1991, after a successful experience of over 10 years in South Korea. During these 12 years , SBS has successfully served CHILE security requirements of our clients , all major companies in the areas of urban and interurban passenger transport, cargo transport, large mining and others. Since year 2012, we have cooperated with them for our driver fatigue monitor MR688.



De Beers, established in 1888, is the world's leading diamond company with unrivalled expertise in the exploration, mining and marketing of diamonds. We have cooperated them since year 2012. They already have installed Driver Fatigue Monitor MR688 on their vehicles.



Chevron is one of the world's leading integrated energy companies which explore for produce, transport and distribute crude oil and natural gas; fuels and lubricants; petrochemical products; geothermal energy and so on. Their Indonesia branch started to install driver fatigue monitor in 2012, now they are going to regard MR688 as mandatory for all trucks.



BHP Billiton are among the world's largest producers of major commodities, including aluminium, coal, copper, iron ore, manganese, nickel, silver and uranium, and have substantial interests in oil and gas.



Coal India Limited (CIL) as an organized state owned coal mining corporate came into being in November 1975 with the government taking over private coal mines. With a modest production of 79 Million Tonnes (MTs) at the year of its inception CIL today is the single largest coal producer in the world. Operating through 81 mining areas CIL is an apex body with 7 wholly owned coal producing subsidiaries and 1 mine planning and consultancy company spread over 8 provincial states of India.



Value for distributors

The world's leading products
Wide application market, Sustainable profitability
Rigorous regional or industry authority protection
Good faith cooperation, Sincere Service

Application market

Supper "cruiser", help you to ride the wind and waves
school bus—Ensure student safety, Policy guidelines
Logistics—Standard driving behavior, to reduce the operation risk
Rent: enhance the quality of experience, Increasing rental rate
Insurance: Avoid driving risk, reduce compensation ratio
Mining: reduce the accident rate, realize better fleet management.



Welcome to join us

Share 20 billion market prospects with you!
Global leading driver fatigue monitor welcome you to join us!
Please call: 0086-020-66617198
Email: sales@care-drive.com.

DRIVER FATIGUE MONITOR *MR688*



Care for driving, care for life!



HAO NAI INDUSTRIAL CO., LTD.

Add: Fourth Floor, No.6th of Jiahe Wanggang Industrial Zone, West of Airport Road, Baiyun District, Guangzhou, China. Post code:510405

Tel: 86 20 66617198 Fax: 86 20 66617197

Website: www.care-drive.com

