## 자동차리콜과 안전

### 과징금 부과 리콜에 대한 소비자 보호방안 연구

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## A Study on Consumer Protection Measures Against Recalls Imposing Fines

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Key Words: Recall(리콜), Fines(과징금)

### **ABSTRACT**

The recalls imposing fines are increasing due to noncompliance in self certificate compliance test. but consumers (owners) can not be rewarded other than recalls. so we need to study compensation for consumers. Therefore, the purpose of this study is to improve the penalty system imposed on manufacturers for noncompliance of KMVSS and to study compensation for consumers.

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### 화재차량 분석을 통한 공조장치 PTC히터 커넥터 리콜사례

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### A Recall case of PTC Heater Connector through Vehicle Fire Analysis

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Key Words: Vehicle Fire(차량 화재), PTC Heater(보조난방장치), Defect Investigation(제작결함조사), Recall(시정조치)

### **ABSTRACT**

This paper deals with the vehicle fire case of cabin-room that identified while conducting defect investigation according to Motor Vehicle Management Act. KATRI(Korea Automobile Testing & Research Institute) has been designated as a performance testing agent of MOLIT(Ministry of Land, Infrastructure and Transport) and verify whether a motor vehicle or a motor vehicle part manufactured has any defect when it necessary. KATRI operates a motor vehicle defects information system(www.car.go.kr) in order to review and analyze safety related defect by collect consumer complaint information and technical reports. Through this similar fire patterns were detected near the PTC(Positive Temperature Coefficient) heater connector of diesel vehicle. Possible defect was confirmed by conducting in cooperation with Seoul Metropolitan Fire & Disaster Headquarters by vehicle fire investigation. The vehicle was recalled and it was able to protect the public form the risk of fire.

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### 화재차량 분석을 통한 와이어링하니스 커넥터 리콜사례

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# A Recall Case of Wiring-harness Connector through Fire Vehicle Analysis

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**Key Words :** Wiring-harness(와이어링하니스), National Fire Data System(국가소방화재시스템), Parking Lot(주차장), Electrical Singularity(전기적 특이점), Full-time All Wheel Drive(상시4사륜구동), Recall(시정조치)

#### **ABSTRACT**

As the number of vehicle registered increases, there are increasing cases of fires during parking also. According to Statistics of National Fire Data System, the total number of vehicle fires is 4,044, and 765 fires in the parking lot in 2021. The vehicle was recalled by analyzing the case of a fire at a similar point, that is identified electrical singularity, of the same vehicle during parking.

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## 무선업데이트(OTA) 관리 방안 고찰

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### Considering about the Method of OTA

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Key Words: OTA, Over the air, 무선업데이트, 무선통신

### **ABSTRACT**

As the development of wireless communication technology, the technology to update software through OTA(Over the Air) have been developed in automobiles, and some manufacturers are providing services.

This OTA function has the advantage that it is very convenient and quick, but there are a lot of risks and cybersecurity issues of arising from indiscriminate software updates with this convenience. So, the UN adopted UN R156 for software updates in June 2020 and the European Union will apply the regulation to all vehicles produced form July 2024 because of safety issue on the OTA.

In this situation, researches are being conducted to make regulation on OTA updates in Korea, and some manufacturers such as Hyundai Motor and BMW have been approved special cases of OTA in regulatory-sandbox for development & service, so manufactures are improving some production defects through OTA.

In conclusion, this research target trends related to software update through OTA and plan to make regulation for OTA.

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## 바이오디젤 의무 사용으로 인한 고압연료펌프 내 수분증가 가능성 연구

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## A Study on the Possibility of Water Increase in High Pressure Fuel Pump Due to Mandatory Use of Bio-diesel

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Key Words: Bio-diesel(바이오디젤), High Pressure Fuel Pump(고압연료펌프)

### **ABSTRACT**

In diesel engines, the high pressure fuel pump increases fuel pressure and supplies it to the common rail. Regarding the trouble of high pressure fuel pump that is occurring a lot in Korea, the manufacturer points to water as one of the reasons. This study is to confirm how the mandatory use of bio-diesel and environmental factors in Korea affect the increase in water in the high pressure fuel pump. In other words, it is a study on the specificity of the fuel use environment in Korea.

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