

# EXHAUST SYSTEM

**1747-01**

## GENERAL INFORMATION

### 1. SPECIFICATIONS

Category	Specifications	Remarks
Exhaust manifold type	Integrated with MCC (4-2-1 type)	-
Catalyst	MCC+UCC	
Exhaust muffler	Front exhaust pipe + Center muffler + Rear muffler	

#### Ultra low emission vehicle in compliance with enhanced emissions standards

KULEV is an emission control regulation.

- Regulated emissions are carbon monoxide (CO), hydrocarbon (HC) and nitrogen oxides (NOx) at higher level compared with the previous regulation (KLEV).

Item	Application time point	Regulation limit (g/km) - based on manufactured vehicle		
		HC	CO	NOx
KULEV	2006	0.034	1.31	0.044

### 2. PRECAUTIONS

- Do not park the vehicle on flammable materials, such as grass, leaves and carpet.
- Do not touch the catalyst or the exhaust gas ignition system when the engine is running.
- If a misfire occurs in the combustion chamber or the emissions of pollutant exceeds the specified level, the catalyst can be damaged.
- When servicing or replacing components of the exhaust system, make sure that the components have certain spaces from all other parts of the under body.
- Be careful not to damage the exhaust system when lifting the vehicle from its side.
- All components and body parts of the engine exhaust system should be inspected for cracks, damage, air hole, part loss and incorrect mounting locations. Also check for any deformation which can result in exhaust gas drawn into the vehicle.
- Make sure that the exhaust pipe has been cooled down sufficiently before working because it is very hot right after the engine has been stopped.
- Wear protective gloves when removing the exhaust pipe.

Modification basis	
Application basis	
Affected VIN	

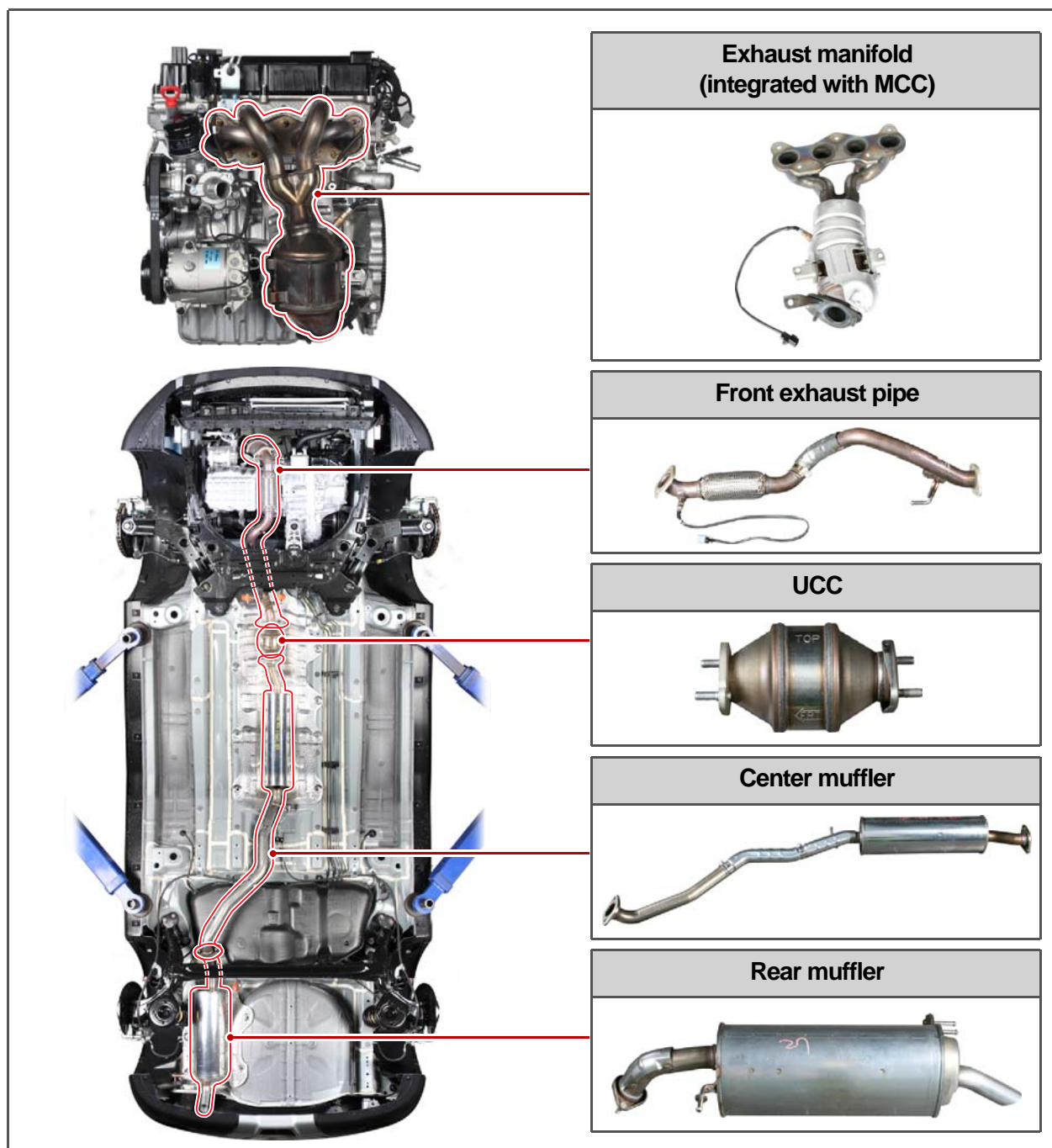
## OVERVIEW AND OPERATING PROCESS

### 1. OVERVIEW

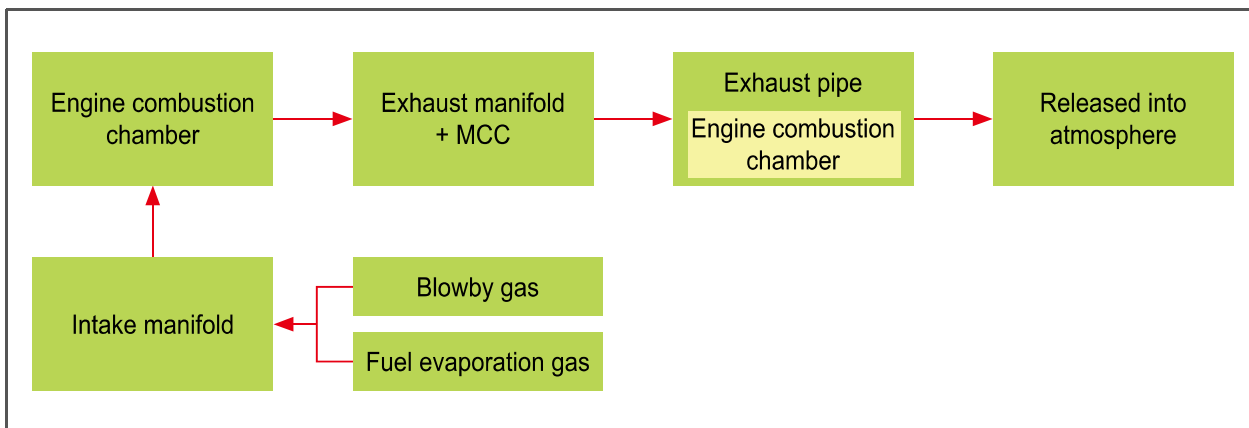
This system purifies the exhaust gas generated by the combustion in the engine to reduce the pollutants and noise during that arise during combustion.

Harmful materials produced in the combustion process are treated and reduced in the exhaust system to reduce emission levels.

### 2. COMPONENTS



### 3. SYSTEM DIAGRAM



#### ► Hazardous emissions

a. In relation to stoichiometric air-fuel-ratio

Category	Lean	Slightly lean	Rich
Emissions	Increased HC	Increased NOx	Increased CO, HC
	Reduced CO, NOx	Reduced CO, HC	Reduced NOx

b. In relation to engine temperature

Category	Low temperature	High temperature
Emissions	Increased CO, HC	Increased NOx
	Reduced NOx	Reduced CO, HC

c. In relation to driving conditions

Category	Idling	Accelerating	Decelerating
Emissions	Increased CO, HC	Increased CO, HC, NOx	Increased CO, HC
	Reduced NOx	-	Reduced NOx

Modification basis	
Application basis	
Affected VIN	