

# ENGINE FUEL SYSTEM

**2211-22**

## OVERVIEW AND OPERATION PROCESS

### 1. FUEL SYSTEM SPECIFICATION

► **Use Only Unleaded Fuel Rated at 89 Octane or Higher**

Fuel quality and additives contained in fuel have a significant effect on power output, drivability, and life of the engine. Fuel with too low an octane number can cause engine knock.

**⚠ CAUTION**  
 - Use of fuel with an octane number lower than 89 may damage engine and exhaust system.

**⚠ CAUTION**  
 - To prevent accidental use of leaded fuel, the nozzles for leaded fuel are larger, and will not fit the fuel filler neck of your vehicle.

► **Do Not Use Methanol**

Fuels containing methanol (wood alcohol) should not be used in vehicle. This type of fuel can reduce vehicle performance and damage components of the fuel system.

**⚠ CAUTION**  
 - Use of methanol may damage the fuel system.

► **Vehicle Fueling from Drums or Storage Containers**

For safety reasons (particularly when using noncommercial fueling systems) fuel containers, pumps and hoses must be properly earthed. Static electricity build up can occur under certain atmospheric and fuel flow conditions if unearthed hoses, particularly plastic, are fitted to the fuel-dispensing pump.

It is therefore recommended that earthed pumps with integrally earthed hoses be used, and that storage containers be properly earthed during all noncommercial fueling operations.

ENGINE FUEL SYSTEM  
 ENGINE ASSEMBLY  
 ENGINE FUEL  
 ENGINE INTAKE  
 ENGINE EXHAUST  
 LUBRICATION  
 COOLING SYSTEM  
 ENGINE ELECTRICAL  
 ENGINE CONTROL  
 CRUISE CONTROL

Modification basis	
Application basis	
Affected VIN	

► temperature vs resistance

°C	°F	ECT Sensor	IAT Sensor
		ohms ( $\Omega$ )	
Temperature vs Resistance Values (Approximate)			
130	266	88	102
120	248	111.6	127
110	230	143	159
100	212	202	202
90	194	261	261
80	176	340	340
70	158	452	452
60	140	609	609
50	122	835	835
40	113	1166	1166
30	86	1662	1662
20	68	2420	2420
10	50	3604	3604
0	32	5499	5499
-10	14	8609	8609
-20	-4	13850	13850
-30	-22	22960	22960
-40	-40	39260	39260

Modification basis	
Application basis	
Affected VIN	