PTC SYSTEM

6810-21

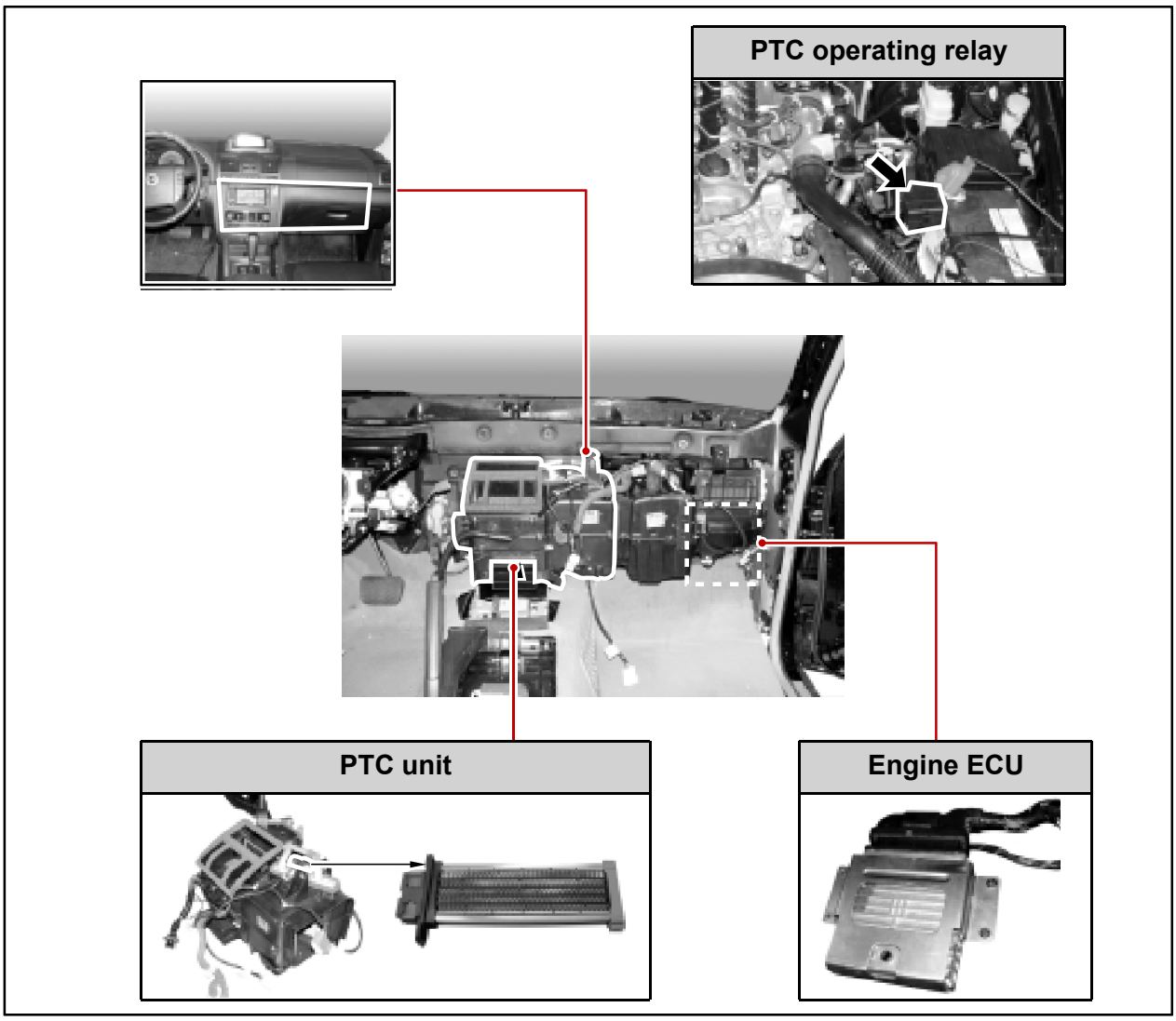
OVERVIEW AND OPERATION PROCESS

1. OVERVIEW

The supplementary electrical heater is installed in D27DT engine equipped vehicle as a basic equipment. The PTC system is operated by the measured temperature values at the coolant temperature sensor and the HFM sensor. This device improves the heating effect by increasing the temperature of flowing air into the passengers room. This system needs higher electric power than conventional system due to it heats the ceramic in PTC with the electricity. And, the alternator capacity has been largely increased (12 V ~ 75 A / 90 A to 12 V ~ 140 A). Non-operational Condition

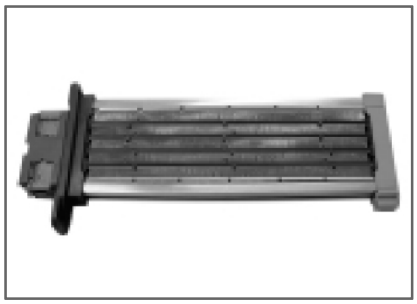
- During engine cranking
- Too low battery voltage (below 11 V)
- During preheating process of glow plugs

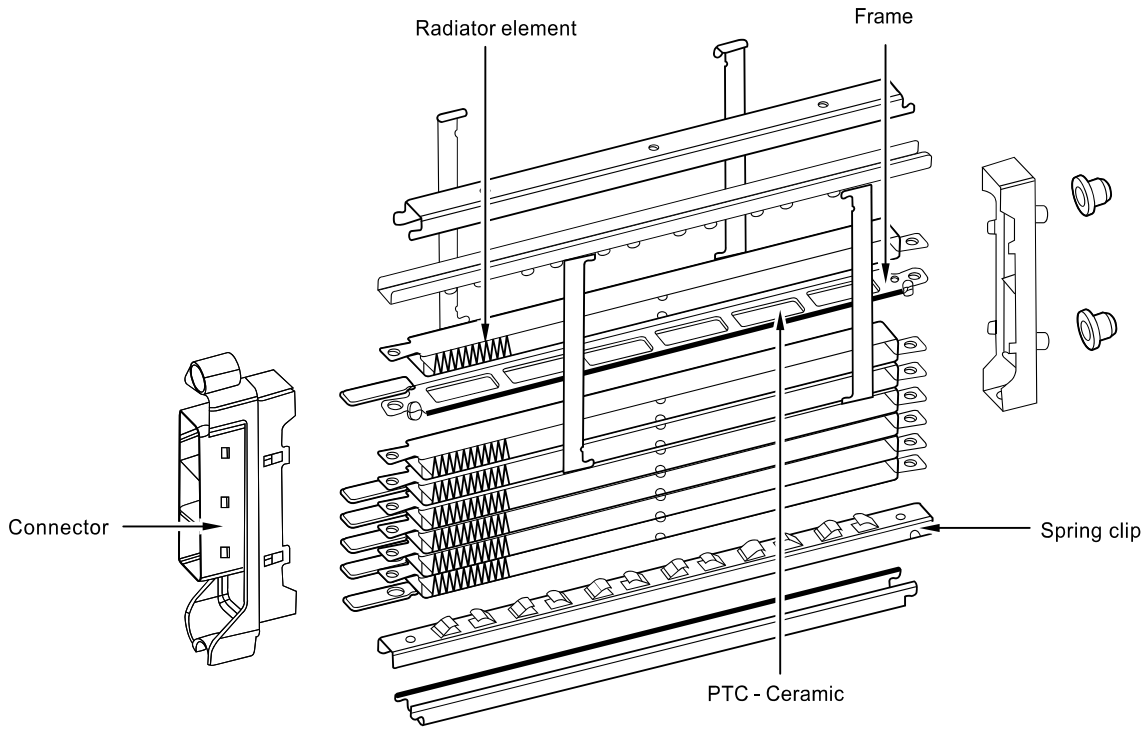
2. COMPONENTS LOCATOR



Modification basis	
Application basis	
Affected VIN	

3. COMPONENTS

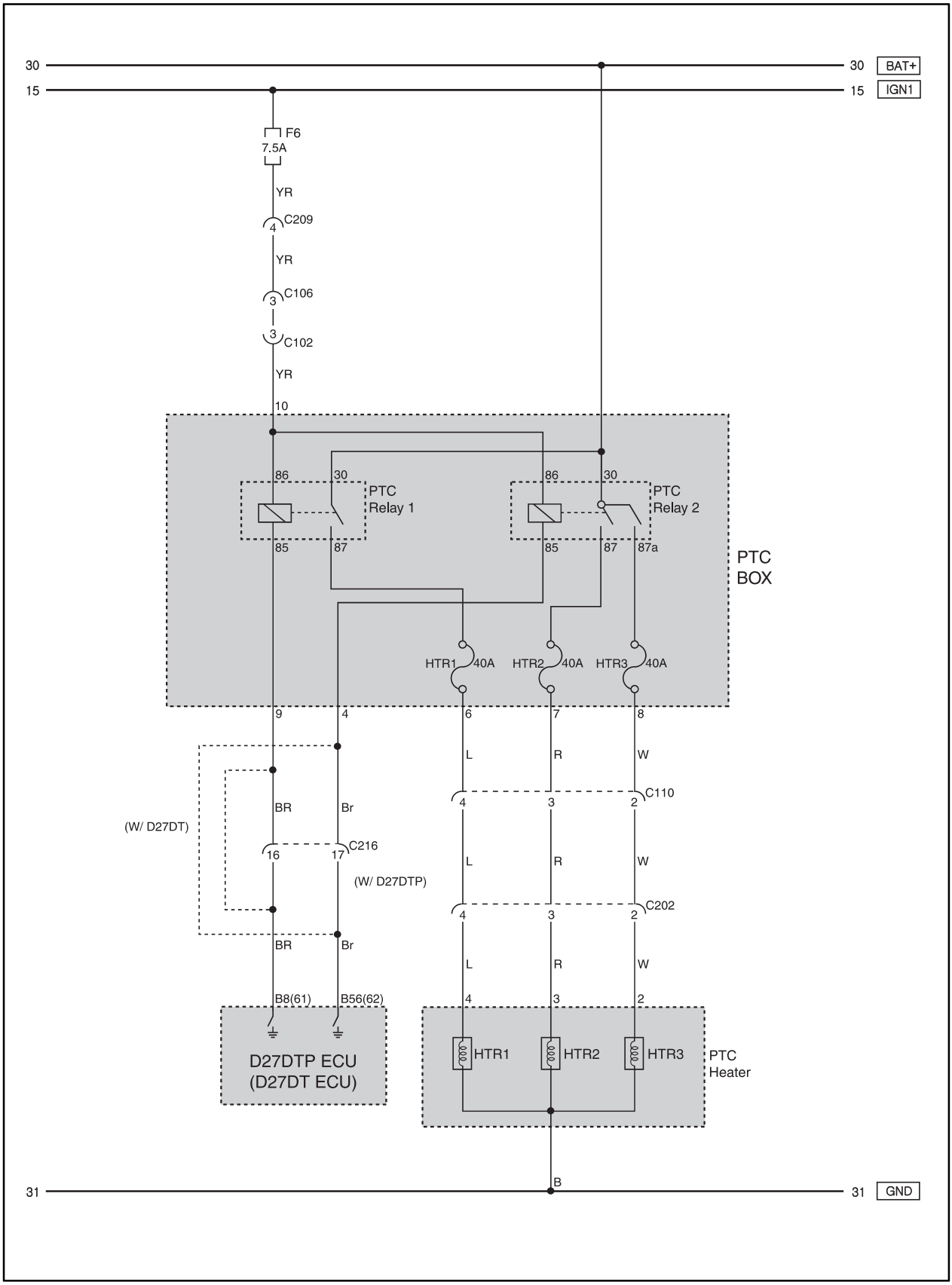




▶ CHARACTERISTICS OF PTC

	P.T.C Heater
Heating type	Air heating type
Heating efficiency	Excellent
Element	Ceramic PTC ($BaTio_3$)
Weight	approx. 500g
Durability	Excellent
Safety	Excellent
Advantages	- Stable output regardless of voltage changes - Block the overcurrent with switch effect of PTC element - High heating capacity in a moment - Excellent durability of heating element against high current

4. CIRCUIT DIAGRAM



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