

RRS - Charging System - Symptom Chart

Symptom	Possible cause	Action
Charge warning lamp does not come on	<ul style="list-style-type: none"> • Bulb/Circuit fault • Generator fault • CAN circuit fault • ECM fault 	Check the warning lamp function with the ignition on and the engine off. Replace bulbs or repair the circuit(s) as necessary. Check for DTCs indicating a generator, CAN or ECM fault.
Charge warning lamp stays on/battery discharges	<ul style="list-style-type: none"> • Accessory drive belt broken • Generator pulley slipping on shaft • Generator fault • Battery cable fault • CAN circuit fault • ECM fault 	Check the battery and generator cables. Refer to the electrical guides. Check for DTCs indicating a generator fault. Check the accessory drive belt condition and tension (see visual inspection chart). Check that the pulley does not rotate independently of the generator. Check for DTCs indicating a CAN or ECM fault.
Charge warning lamp intermittent	<ul style="list-style-type: none"> • Accessory drive belt slipping • Battery cable fault • Generator wiring fault • Generator fault • CAN circuit fault 	Check the accessory drive belt condition and tension (see visual inspection chart). Check the battery and generator cables. Refer to the electrical guides. Check for DTCs indicating a generator or CAN circuit fault. Note that the use of a power pack or boost charger may bring the warning lamp on until disconnected.
Battery discharges without the charge warning lamp staying on	<ul style="list-style-type: none"> • Battery fault • Battery quiescent drain • Intermittent generator fault 	Check the battery condition, check for battery quiescent drain. Check for DTCs indicating a generator fault. It is possible for the altcom circuit to short circuit to ground without setting a DTC. If no other reason for discharge can be found, check this circuit. Refer to the electrical guides.
Noise (mechanical)	<ul style="list-style-type: none"> • Accessory drive belt slipping • Generator fault 	Check the accessory drive belt condition and tension (see visual inspection chart). Disconnect the accessory drive belt and check that the generator rotates freely.