File in Section:

Bulletin No.: PI1069

Date: October, 2013

# PRELIMINARY INFORMATION

Subject: Cooling Fans Do Not Run or Run with Key Off

Models: 2012-2013 Chevrolet Impala Police Vehicle

2014 Chevrolet Impala Limited Police Vehicle

Equipped with RPOs 9C1 and 9C3

### Condition/Concern

Some customers may comment that the cooling fans do not run or that the fans run with the key off. This may be caused by one or more of the following:

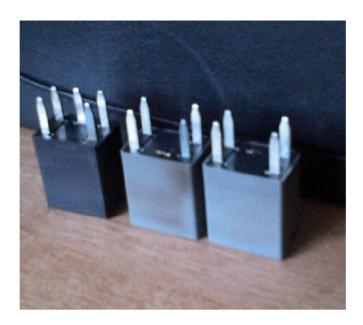
- · Cooling fan relays sticking.
- Cooling fan motors drawing to much amperage, sticking and causing damage to the relays and accessory wiring block.

#### Recommendation/Instructions

Technicians should inspect the relays. If the relays are discolored or appear distorted (See pictures below), replace the relays.



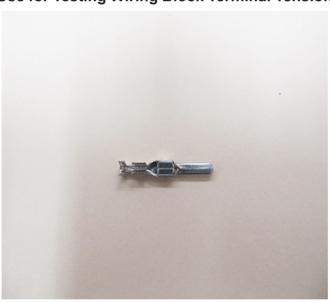
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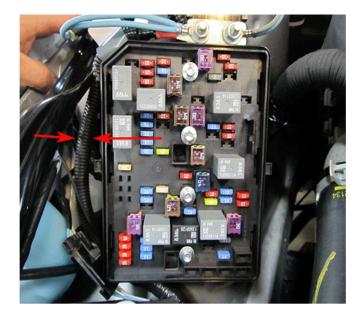
Inspect the accessory wiring block for any damage and replace if necessary. Inspect the tension in the wiring block for the cooling fan relays using 7114–4112–02 terminal from the terminal repair kit. See the picture below. If the tension is loose, replace the wiring block.

## **Use for Testing Wiring Block Terminal Tension**



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Check the cooling fan motor amp draw using a suitable tool at the wiring block as shown below.



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- · Start engine and warm to normal operating temperature and leave running.
- Turn off the headlights and HVAC fan.

The starting amperage may be between 16–18 amps at this location with the vehicle running. When each fan is turned on, it will "jump" up in reading.

Note the amp draw for later.

- 1. Using a Tech 2 select: Powertrain>Engine Control Output>Special Functions>Module Control>Cooling Fan.
- 2. Turn on Relay 1, 2 and 3 to run both fans on high. The amp reading with both fans running could be 55–60 amps.
- 3. Pull 1 relay and read the amps. Subtract original reading (16–18 amps) from total. (Which should be under 26 amps).
- 4. Reinstall the relay, pull the second relay and repeat.

If the fan motor(s) draw more than 26 amps, replace the fan motor(s).

#### **Parts Information**

Part Number	Description	Qty
22862311	BLOCK, ACSRY WRG	1
89018695	MOTOR KIT, ENG COOL (LEFT)	1
89018696	MOTOR KIT, ENG COOL (RIGHT)	1

Part Number	Description	Qty
89018691	BLADE KIT, ENG COOL (LEFT)	1
89018693	BLADE KIT, ENG COOL (RIGHT)	1
19116057	RELAY	2
19116058	RELAY	1

# **Warranty Information**

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
2680028*	Replace Fan Cooling Motor Relays	0.2 hr
Add	To Replace Accessory Wiring Block	0.3 hr
Add	Inspect Cooling Fan Motor Amp Draw	0.3 hr
Add	To Replace Cooling Fan Motor	1.1 hrs
Add	To Replace Both Cooling Fan Motors	0.4 hr
*This is a unique labor operation f		