

2010 ELECTRICAL

Power Outlets - Equinox & Terrain

SCHEMATIC AND ROUTING DIAGRAMS

CIGAR LIGHTER/POWER OUTLET SCHEMATICS

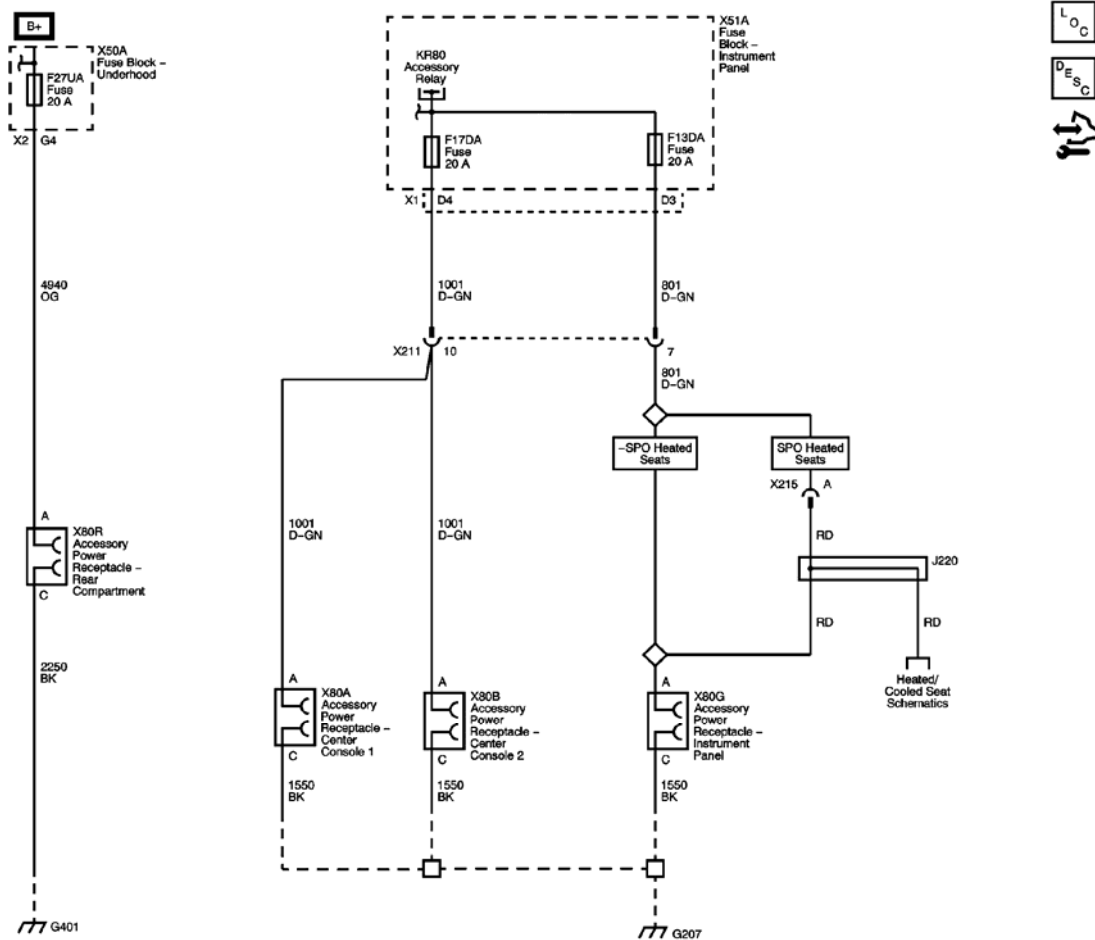


Fig. 1: View Of Cigar Lighter/Power Outlet Schematic
Courtesy of GENERAL MOTORS CORP.

DIAGNOSTIC INFORMATION AND PROCEDURES

SYMPTOMS - POWER OUTLETS

Visual/Physical Inspection

- Inspect for aftermarket devices which can affect the operation of the power outlets. Refer to **Checking Aftermarket Accessories**

- Inspect the accessible system components or the visible system components for obvious damage or for obvious conditions which can cause the symptom.

Intermittent

Electrical connections or wiring may be the cause of intermittent conditions. Refer to **Testing for Intermittent Conditions and Poor Connections**

Symptom List

Refer to **Power Outlet Receptacle Malfunction** in order to diagnose the system.

POWER OUTLET RECEPTACLE MALFUNCTION

Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- **Diagnostic Procedure Instructions** provides an overview of each diagnostic category.

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
B+	1	1	-	-
IGN	1	1	-	-
Ground	-	1	1	-
1. Accessory Power Receptacle Malfunction				

Circuit/System Description

The accessory power receptacle located in rear of the vehicle is supplied B+ all the time. The accessory power receptacles located in the instrument panel and center console are supplied B+ when the ignition is on or in the accessory position.

Reference Information

Schematic Reference

Cigar Lighter/Power Outlet Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Power Outlets Description and Operation

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Circuit/System Testing

1. Ignition OFF, disconnect the harness connector at the appropriate X80 accessory power receptacle.
2. Test for less than 5 ohms between the ground circuit terminal C and ground.
 - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition ON, verify that a test lamp illuminate between the B+/ignition circuit terminal A and ground.
 - If the test lamp does not illuminate, test the B+/ignition circuit for a short to ground or an open/high resistance.
4. If all circuits test normal, test or replace the X80 accessory power receptacle.

Repair Procedures

Perform the **Diagnostic Repair Verification** after completing the diagnostic procedure.

Accessory Power Receptacle Replacement

REPAIR INSTRUCTIONS

ACCESSORY POWER RECEPTACLE REPLACEMENT

Special Tools

J 42059 Cigar Lighter Socket Remover. See **Special Tools**.

Removal Procedure

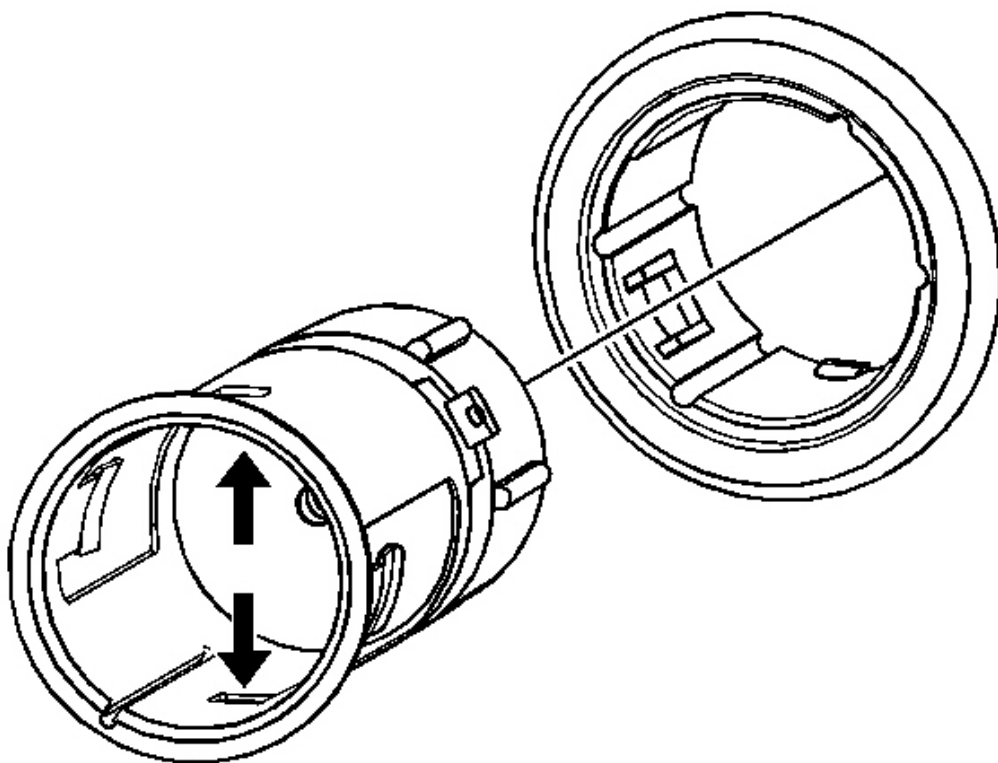


Fig. 2: View Of Cigar Lighter Socket/Accessory Power Outlet
Courtesy of GENERAL MOTORS CORP.

1. Remove the auxiliary power outlet fuse from the fuse block.
2. Remove the receptacle:
 1. Look into the receptacle. There are two 3 mm (0.11 in) tab windows 12 mm (0.47 in) from the front of the receptacle. The **J 42059** pushes the plastic latches from these tab windows and the receptacle can be pulled straight out. See **Special Tools**.
 2. Place one side of the "T" portion of the **J 42059** into the tab window. See **Special Tools**. The **J 42059** will not fit straight into the receptacle. See **Special Tools**. Angle the **J 42059** slightly for insertion into the receptacle. See **Special Tools**.
 3. Insert the other side of the "T" into the opposite tab window.

You must move the **J 42059** handle toward horizontal to engage the other tab window. See **Special Tools**.

4. Use the **J 42059** to pull the receptacle straight out. See **Special Tools**.

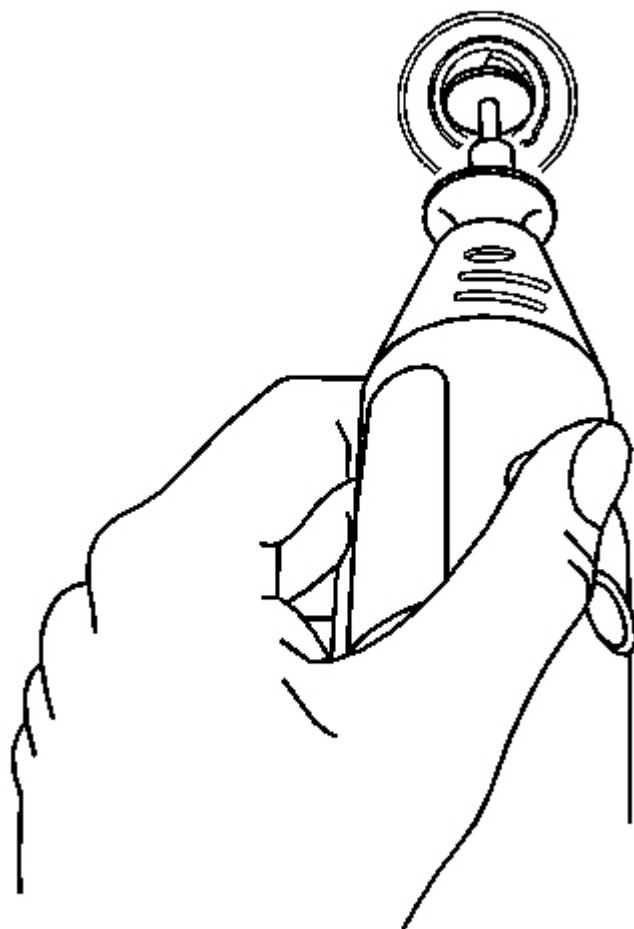


Fig. 3: Removing Cigar Housing Using Grinding Tool
Courtesy of GENERAL MOTORS CORP.

3. If **J 42059** tool fails to release the lighter socket from the retainer, perform the following alternate method: See **Special Tools**.
 1. Insert a small grinding tool with a cutoff wheel into the socket.
 2. Remove the plastic latches in the 3 mm (0.11 in) square windows.
 3. Use the **J 42059** as directed above to remove the socket. See **Special Tools**.

Installation Procedure

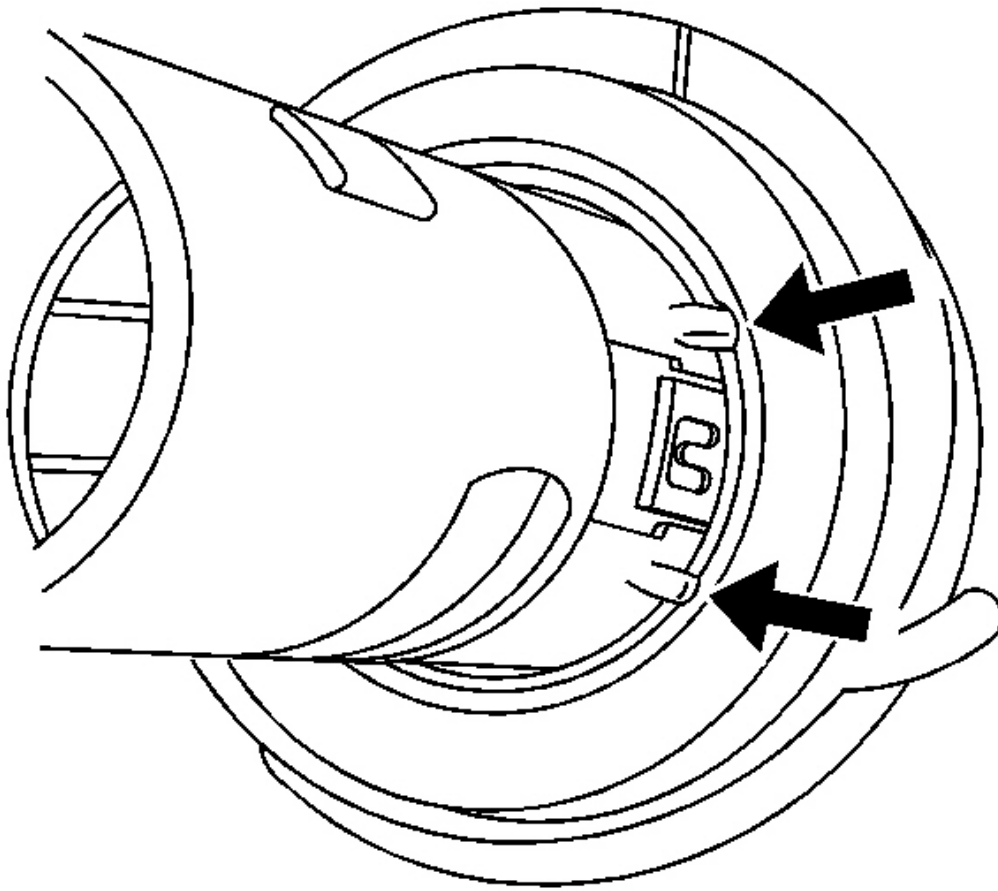


Fig. 4: View Of Receptacle Tabs & Retainer Slots
Courtesy of GENERAL MOTORS CORP.

1. Route the connector through the retainer. Align the accessory power receptacle retainer to the slot in the opening.
2. Install the retainer by pressing into place fully seated.
3. Connect the electrical connector to the receptacle.
4. Align the tabs on the receptacle to the slots in the retainer. Install the accessory power receptacle by pressing into place until fully seated.
5. Install the accessory power receptacle fuse.

DESCRIPTION AND OPERATION

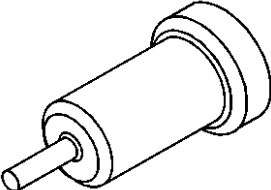
POWER OUTLETS DESCRIPTION AND OPERATION

12 Volt Power Outlet Receptacle Description and Operation

The accessory power receptacle in the rear of the vehicle is supplied battery voltage at all times. The accessory power receptacles located in the center console and the instrument panel are supplied battery voltage when the ignition is on or in the accessory position.

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Illustration	Tool Number/ Description
	J 42059 Cigar Lighter Socket Remover