

**ATTENTION:**  
 GENERAL MANAGER   
 PARTS MANAGER   
 CLAIMS PERSONNEL   
 SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.


© 2025 Subaru of America, Inc. All rights reserved.



QUALITY DRIVEN® SERVICE

**SERVICE INFORMATION BULLETIN**

**APPLICABILITY:** All I.C.E. Models **NUMBER:** 07-236-25  
**SUBJECT:** Service Manual Update for Dark Current Parasitic Draw Diagnostic & Testing Procedures **DATE:** 10/23/25

**INTRODUCTION:**

This Service Information Bulletin outlines a comprehensive update to the dark current/parasitic draw diagnosis & testing procedures. A strong emphasis on methodical and thorough assessment of the vehicle’s history and detailed customer interviews is essential in avoiding common errors such as premature testing and incorrect isolation procedures. The information provided in this bulletin will further aid diagnostic accuracy and help reduce unnecessary repair time. This information will be included in the applicable Service Manual starting with 2025 models.

**NOTE:** Additional information regarding dark current/parasitic draw service procedures can be found in **TSBs 07-85-14R, 07-199-21R and 15-308-23R.**

**CRITERIA FOR TESTING:** An amperage draw test should **ONLY** be performed after all other common causes for a dead battery have been ruled out. This includes the following:

- The battery has been thoroughly tested and confirmed to be in good working condition. Step 1: Appendix A.
- The charging system (alternator) has been tested and is functioning correctly. Step 2: Appendix A.
- All obvious errors have been ruled out, such as leaving the dome light on, a door ajar, a key FOB in the car, or an accessory charger left plugged in.
- The customer has a verifiable history of repeat dead battery incidents after the vehicle has been sitting for a period of time (e.g., overnight, over a weekend)

**CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.**

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

**Subaru of America, Inc. is ISO 14001 Compliant**

ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

*Continued...*

## The Importance of a Customer Interview:

**A thorough customer interview is the critical first step.** Customer interviews are a vital source of information about the vehicle's behavior. Service department members should inquire about:

- **Vehicle Use and Driving Habits:** How often is the vehicle driven? Is it only used for short trips? A car that is only driven for short, infrequent trips may not be driven long enough to fully recharge the battery after starting, leading to a gradual discharge.
- **Aftermarket Device Installation:** Inquire about any aftermarket devices the customer may have, such as alarms, remote start systems, dash cameras, or GPS trackers. Many of these devices draw power continuously and may be the source of the issue. Even a small, acceptable draw from a device can add up to an excessive overall draw when combined with the vehicle's normal parasitic load.

## 2. Pre-Test Conditions and Critical Failures

Before beginning any parasitic draw test, technicians must verify the following conditions to ensure a valid and reliable result:

### A. Initial Verification:

- The vehicle's doors, hood, and trunk are closed and latched. All interior and exterior lights are off. (Refer to [APPENDIX:D](#))
- Keys, key fobs, and remote entry devices are moved at least 4.92 feet (1.5M) away from the vehicle to prevent any "polling" or module wake-up.
- Any aftermarket electronics are disconnected to eliminate them as a variable.

### B. The BIU and Module Sleep State (The Critical Failure):

- A frequent and critical failure in parasitic draw testing may be caused by failure to allow sufficient time for all control modules to power down and enter a low-power "sleep" state.
- The Body Integrated Unit (BIU) and other modules, such as the telematics and infotainment systems, perform a series of self-tests and communications after the ignition is turned off. This activity creates a temporary, but significant, current draw.
- The self-test and power-down process takes a minimum of 20 minutes on most models. Do not mistake this temporary draw for an actual parasitic issue. A premature reading will give a false indication of excessive draw, leading to incorrect and time-consuming repairs.

*Continued...*

### 3. Parasitic Draw Isolation Testing: The Correct Methodology

**NOTE:** Before proceeding, it is critical that the vehicle is set up correctly and all pre-test conditions have been met. Always reference STIS or **APPENDIX A: STEP 3** of this bulletin to ensure the vehicle is in the proper state for successful testing.

#### STEP 1: INITIAL MEASUREMENT

- A. Connect an amp meter in series between the negative battery post and the negative battery cable. **APPENDIX C.**
- B. Observe the initial reading. A normal parasitic draw is typically less than 70 mA (0.070 A). Vehicles with more advanced electronics may have a slightly higher but still acceptable reading (check the specific service manual). Refer to STEP 4: [APPENDIX A.](#)
- C. If the reading is above the acceptable threshold, proceed to the isolation phase.

#### STEP 2: Systematic Fuse Isolation

- A. The correct methodology is to systematically pull fuses one at a time, starting with the main box fuse panel (under-hood).
- B. **CAUTION: DO NOT RE-INSERT THE FUSES.** Placing a fuse back into the panel can wake up a module, re-establishing the amperage draw and potentially corrupting the data, forcing a new period of waiting until the modules go to sleep.
- C. Pull the first fuse and record the reading on your amp meter. If there is no significant drop, move to the next fuse.
- D. Continue this process, fuse by fuse, and record the current draw after each fuse is pulled.

#### STEP 3: Identifying The Culprit

- A. The moment the amp meter reading drops significantly (e.g., from 300 mA to 40 mA), you have found the circuit containing the parasitic draw. Draw may be cumulative. Be sure to review the recorded values of each fuse pull. Refer to STEP 5: [APPENDIX A.](#)
- B. Document the fuse location and amperage. Use the wiring diagram and service information for that specific circuit to identify all components connected to it.
- C. From here, perform further testing on the individual components within that circuit to pinpoint the exact cause of the draw (e.g., a faulty control module, a shorted wire, a stuck relay).

*Continued...*

## **Alternative Method (Voltage Drop Across Fuses): Refer to [APPENDIX B](#).**

As an alternative to connecting an amp meter in series, a multimeter can be set to millivolt (mV) mode to measure the voltage drop across each fuse. This is a non-intrusive method that avoids breaking the circuit.

**STEP 1:** Place the multimeter leads on each side of the fuse. A voltage drop greater than 0mV indicates current flowing through the fuse.

**STEP 2:** Reference a fuse voltage drop chart (available in the appendix) to convert the mV reading to the approximate current draw for that specific fuse type.

**STEP 3:** While effective, this method requires careful lead placement and is best for technicians who are well-versed in this technique.

### **4. Documentation And Follow-Up**

- **DOCUMENTATION IS KEY:** Accurately document all readings, the order in which fuses were pulled, and the identified circuit. This information is vital for future diagnostics and for reporting any persistent or intermittent issues.
- **FINAL VERIFICATION:** After the repair, perform a final parasitic draw test to confirm the amperage draw is now within the acceptable range and that no new issues have been introduced.

### **5. Escalation And Reporting**

- **Contact for Assistance:** If the root cause cannot be isolated using the methodology outlined in this bulletin, the technician must contact Techline or the District Service Quality Manager (DSQM) for assistance. Provide a detailed report of all steps taken and recorded readings.
- **DCM Findings:** For vehicles where the Data Communications Module (DCM) is identified as the root cause of the parasitic draw, the technician must complete TSB 15-308-23R. This TSB, along with the requested information for Gen3/Gen4 target populations, must be submitted by QMR for review by the engineering team. This process is required for the DCM to be officially released and for the repair to be documented.

*Continued...*

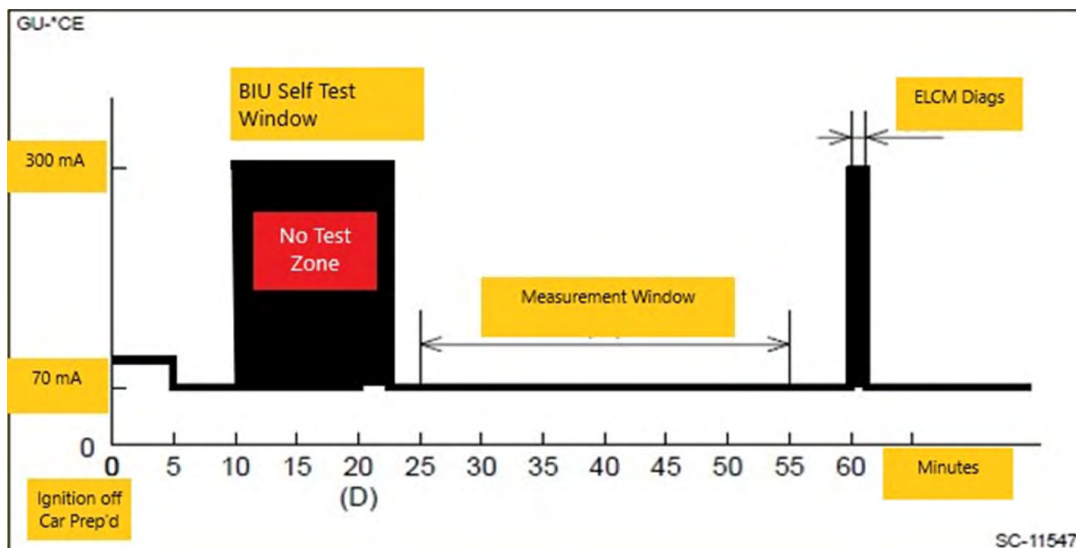
## APPENDIX A: Updated Service Manual Trouble Tree Flow

The following procedures have been taken from the Subaru Service Manual and have the updates applied.

### 1. CHECK STANDBY CURRENT AKA PARASITIC DRAW/DARK CURRENT (NARROWING DOWN DEFECTIVE SYSTEM)

1. Turn the interior light switch to the OFF position.
2. Close all the doors (including the rear gate).
3. Store the access key at least 1.5m (5ft) away from the vehicle.
4. Measure the current draw using the same procedures outlined in “MEASUREMENT METHOD OF STANDBY CURRENT” in the applicable Service Manual. Refer to: [STARTING/CHARGING SYSTEMS > Dead Battery Check > INSPECTION > MEASUREMENT METHOD OF STANDBY CURRENT](#)

**Note:** The standby current changes as shown in the figure below. Perform measurements within the measurable range.



5. Remove the fuses one by one to identify which system changes the current flow to the specified value. Refer to: WIRING SYSTEM > Power Supply Circuit.

#### CAUTION:

- Check the +B power supply of the actuator and CM in the wiring diagram and remove the fuses one system at a time from them.
- If there are multiple fuses in the same system, remove in order starting from the fuses that are close to the load (most far from the power supply), and inspect the standby current.
- ALWAYS remove one fuse at a time, and do not remove two or more fuses at a time.
- Check the following system without installing the removed fuse.
- If the measurement value changes after removing the fuse, wait for five minutes or more until it becomes stable, then measure the value.

6. Remove the fuses one by one to identify which system changes the current flow to the specified value. Refer to: WIRING SYSTEM > Power Supply Circuit

*Continued...*

## APPENDIX B: Alternate Dark Current/Standby Current Draw Test Procedure

### Old Technique vs New Technique

The traditional method detailed in the body of this TSB – disconnecting the battery, putting the multimeter in series, and pulling fuses until the draw source is found – is the method detailed in STIS but may not always be the most efficient method of finding dark/standby draw. This inefficiency is because the very disconnection of the battery may temporarily fix the issue by sending the system to sleep along with the error or having to wait an excessive time for the module to go back to sleep. This behavior can complicate isolation testing and make recorded results confusing.

An alternative diagnostic method of dark/standby current draw testing can be performed by measuring the voltage drop across the fuses. This can be done by using the test points on the fuses without breaking the battery connection, pulling fuses, disturbing the circuit, or awakening any modules. What you are looking for is a voltage drop in the millivolts range. This is caused by an increase in resistance brought about by heating the fuse through the movement of current.

Different sized fuses will show different voltage drops. For example, a 10A fuse with 175 mA flowing through it will show a voltage drop of 1.5mV. When measuring the same fuse with no current flow, it would be more like 0.1mV or 0.2mV.

While using this dark/standby draw isolation method, excessive mV readings indicate the need for further root cause isolation. Disconnecting components fed by the fuse until mV readings come within expected tolerances.



*Continued...*

**FUSE REFERENCE:**

Fuse Color	Grey	Violet	Pink	Tan	Brown	Red	Blue	Yellow	Clear	Green
Measurement mV	Mini 2 Amp	Mini 3 Amp	Mini 4 Amp	Mini 5 Amp	Mini 7.5 Amp	Mini 10 Amp	Mini 15 Amp	Mini 20 Amp	Mini 25 Amp	Mini 30 Amp
0.1	2	3	4	6	9	13	22	31	42	54
0.2	4	6	9	11	18	27	44	62	85	108
0.3	5	9	13	17	28	40	66	93	127	162
0.4	7	12	17	23	37	54	87	125	169	216
0.5	9	15	21	28	46	67	109	156	212	270
0.6	11	18	26	34	55	81	131	187	254	324
0.7	13	21	30	39	65	94	153	218	297	378
0.8	14	24	34	45	74	108	175	249	339	432
0.9	16	27	38	51	83	121	197	280	381	486
1	18	30	43	56	92	135	218	312	424	541
1.1	20	33	47	62	101	148	240	343	466	595
1.2	22	36	51	68	111	162	262	374	508	649
1.3	23	39	55	73	120	175	284	405	551	703
1.4	25	41	60	79	129	189	306	436	593	757
1.5	27	44	64	85	138	202	328	467	636	811
1.6	29	47	68	90	147	216	349	498	678	865
1.7	31	50	72	96	157	229	371	530	720	919
1.8	32	53	77	101	166	243	393	561	763	973
1.9	34	56	81	107	175	256	415	592	805	1027
2	36	59	85	113	184	270	437	623	847	1081

↑↑↑↑↑ milliAmp Equivalent draw value ↑↑↑↑↑


*Continued...*

# APPENDIX C: Setting up the DVOM for amperage draw measurement

**NOTE:** The following information can be found in the applicable Subaru Service Manual.

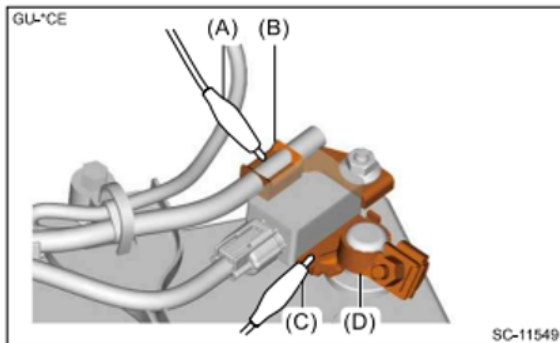
## 1. MEASUREMENT OF STANDBY CURRENT.

### Caution:

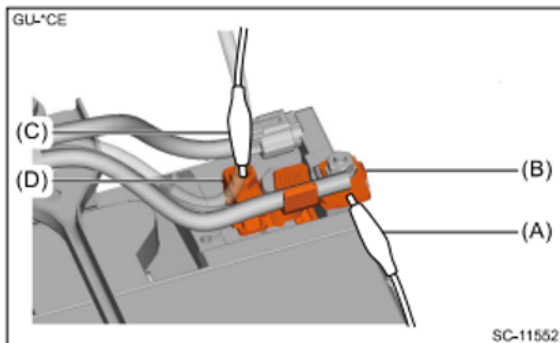
- Perform the preparation of the vehicle status, and measure the standby current within the measurable range.
-  [Go to 3.](#)
- Do not open/close the door or operate the switches during the inspection.
- For models with keyless access function, take the access key 1.5 m (4.92 ft) or more away from the vehicle during the inspection.
- For models with keyless access function, the standby current changes regularly. Therefore, measure it using an analog type circuit tester.
- When measuring the standby current, the reading of the circuit tester oscillates. Therefore, read the average value (median value).

### 1. Connect the circuit tester.

- 1) Connect the circuit tester positive terminal (A) and the battery cable negative terminal (B).
  - 2) Connect the circuit tester negative terminal (C) and the ground terminal (D) of the battery sensor.
- VIN: ] JF1##### [ models and ] JF2##### [ models



- VIN: ] 4S4##### [ models



### 2. Measure the standby current.

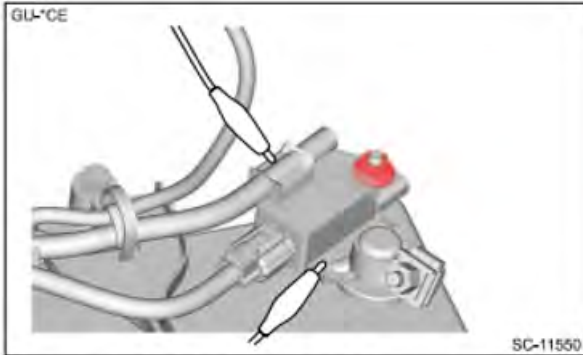
- 1) Remove the nut securing the ground terminal to the battery sensor.

### Caution:

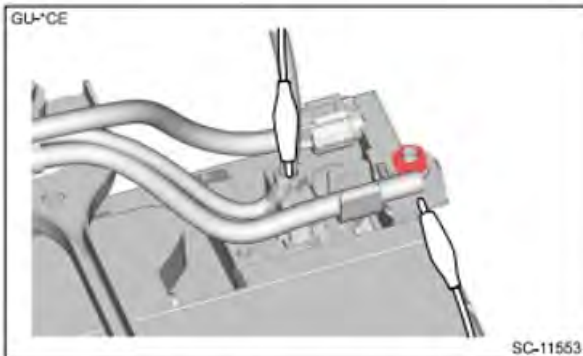
**Be careful not to disconnect the battery connection during work.**

- VIN: ] JF1##### [ models and ] JF2##### [ models

*Continued...*



- VIN: ] 4S4##### [ models

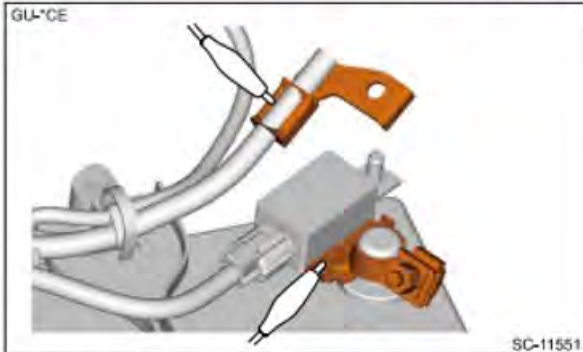


2) Remove the ground terminal from the battery sensor while connecting the circuit tester.

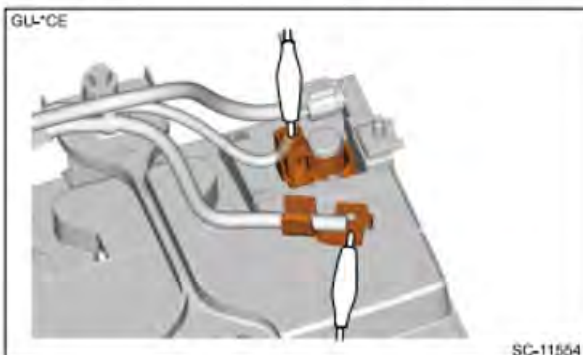
**Caution:**

**If the circuit tester is disconnected, perform the work again from the preparation of the vehicle conditions.**

- VIN: ] JF1##### [ models and ] JF2##### [ models



- VIN: ] 4S4##### [ models



Is the maximum measurement value less than 70 mA?


*Continued...*

# APPENDIX D: Setting up vehicle prior to start of parasitic draw measurement

**NOTE:** The following information can be found in the applicable Subaru Service Manual.

**Caution:**

**Use wheel chocks to secure the vehicle.**

1. Check that the fuse is not blown out and is properly inserted.
2. Check that the delivery mode fuse is not inserted.  [Ref. to PRE-DELIVERY INSPECTION>PRE-DELIVERY INSPECTION \(PDI\) PROCEDURE > FUSE INSTALLATION.](#)
3. Start the engine and apply the electronic parking brake.

**Note:**

When EPB is not being operated for a long distance (3,000 km (1864.2 miles), brake pad position correction may work. Be sure to perform this procedure.

4. Turn the switch for each system as follows.

**Note:**

Some systems are not equipped depending on the vehicle. Therefore, perform work only on the systems equipped on the vehicle.

System	Position
Headlight	ON or AUTO
Fog light	ON
Wiper (front and rear)	ON or Low speed
Audio and navigation system	ON
Rear defogger	ON
Room light	ON
Luggage light	DOOR
Map light	ON
Auto A/C	ON (AUTO)
Manual A/C	ON (Speed 1)
Electronic parking brake	OFF
Electrical parts other than those listed in the previous item (electrical parts that users can confirm the operation with the key removed)	OFF

5. Turn the ignition switch to OFF.

*Continued...*

# Appendix E: Supplemental Parasitic Draw Diagnostics—The “Always Awake” CAN Bus

## A.1. Introduction to Persistent Draw

In certain situations, a technician may encounter a parasitic current draw that remains **excessively high** after the vehicle’s sleep/standby mode transition period has elapsed, and **no single fuse pull** reduces the draw to an acceptable level (typically).

When this condition is observed, it suggests that the vehicle’s **Controller Area Network (CAN)** is still active and has not fully entered its low-power sleep state. Diagnosis of a traditional parasitic draw (component-level short or stuck relay) will be ineffective until the network is confirmed to be asleep.

## A.2. Diagnosing a Persistent “Awake” State

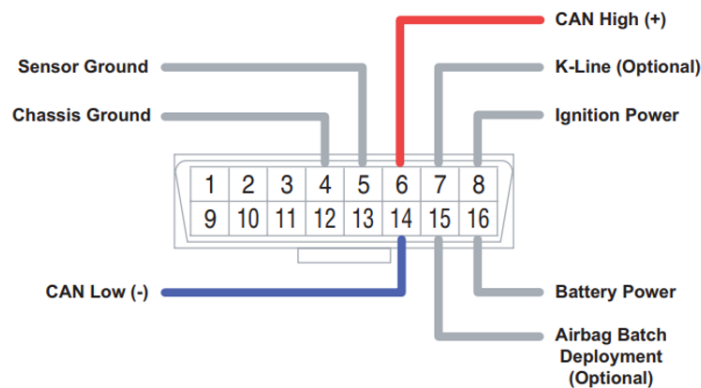
The persistent “awake” state typically occurs for one of two reasons:

1. **Wait Time Violation:** The **minimum required wait time** (e.g., 25 minutes) was not strictly adhered to before beginning the current draw measurement or isolation. The vehicle is still in its typical power-down sequence.
2. **Module/Input Fault:** A specific module or its input prevents the CAN network from sleeping, even after the required wait time.

## A.3. Checking CAN Bus Activity

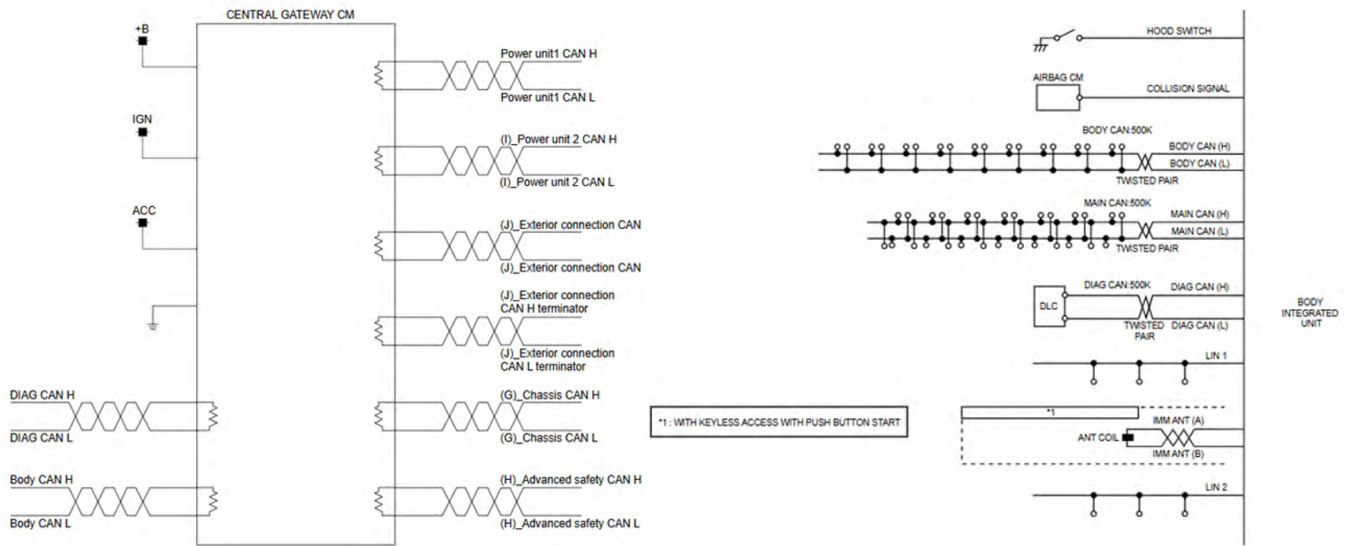
Before proceeding with traditional fuse isolation techniques, it is valuable to quickly confirm the sleep status of the CAN network. This is done by measuring the voltage across the CAN High and CAN Low circuits.

CAN C Bus Circuits	Sleep	Recessive (Bus Idle)	Dominant (Bus Active)	CAN Low short to ground	CAN high short to ground	CAN Low short to B+	CAN High short to B+	CAN High short to CAN Low
CAN High or +	0.0V	2.5V	2.6-2.7V	0.5V	0.0V	12.5V	2.5V	2.5V
CAN Low or -	0.0V	2.5V	2.3-2.4V	0.0V	0.5 V	12.5V	12.5V	2.5V



**For newer vehicle you will need to make measurements at the Central Gateway (CGW) or the Body Integrated Unit (BIU), by back probing the CAN High and CAN Lo circuits. Please refer to the appropriate section of STIS to confirm terminal locations and wire colors.**

*Continued...*



**NOTE:** Due to the nature of CAN communication (pulsing voltage signals), it may be necessary to use a **graphing Digital Volt-Ohm Meter (DVOM)** or an **oscilloscope** to accurately observe and confirm the presence of any residual voltage or communication activity on these circuits.

#### A.4. Common Causes of Non-Sleep Events

If the technician is certain the minimum waiting time was observed, the persistent CAN activity is likely due to an input or a faulty module. Common examples include:

1. **Key Fob Presence:** A key fob left inside the vehicle keeps the **Keyless Access Control Module** or similar module awake.
2. **Door/Hood/Trunk Ajar:** A faulty or misadjusted door pin switch, hood latch switch, or trunk latch switch keeps the **Body Integrated Unit** awake.
3. **Faulty Module:** A module on the network may have an internal fault, causing it to continuously send messages and prevent the entire network from entering sleep mode.

**Isolation Priority:** Diagnosing and resolving the “always awake” CAN condition **must** take precedence over traditional parasitic draw isolation, as the current draw observed will be an incorrect reading of the vehicle’s true standby current until the network is asleep.