GODIAG GT100

GODIAG GT100 Auto ECU Breakout Box User Manual

Brand: GODIAG | Model: GT100

1. Product Overview

The GODIAG GT100 is an advanced OBDII protocol communication detection and ECU maintenance/diagnosis/programming/coding test platform. It offers a comprehensive solution for automotive technicians and enthusiasts.

- **ECU Connector:** The GODIAG GT100 serves as a test platform for OBDII protocol communication detection and ECU repair/diagnosis/programming/coding.
- **Powerful Features:** When connected to a vehicle and diagnostic tool via OBDII, the GT100's LED indicators show communication status. It monitors and displays the vehicle's OBDII interface voltage in real-time. If the voltage drops below 11V, it advises stopping diagnostics and programming to prevent potential vehicle issues like failure to start, data loss, or module lock-up.
- **Strong Compatibility:** This OBD2 protocol detector can connect to single or multiple vehicle control modules. It is compatible with various diagnostic tools to assess vehicle communication integrity.
- **Car Battery Supplement:** The GT100 can supply auxiliary power to the vehicle during battery replacement, preventing loss of control module data, auto-lock, key remote malfunction, and warning light activation.
- **Easy to Operate:** The GT100+ OBDII breakout box is user-friendly and includes functions for servicing the vehicle's ECM and ECU. It connects to the ECU module via banana plugs or a DB25 connector, providing power to the ECU and displaying the electronic current value directly.



Figure 1: GODIAG GT100 Auto ECU Breakout Box and its accessories.

2. Setup

Before operating the GODIAG GT100, ensure all connections are secure and correct. This section outlines the basic setup procedures.

2.1 Component Identification



Figure 2: Detailed view of the GODIAG GT100's ports and indicators. This image highlights the various connection points and their labels for proper setup.

Refer to Figure 2 for the layout of the GT100. Key components include:

- **Car Connect (OBDII Port):** For connecting to the vehicle's OBDII port.
- **ECU Connector (Banana Plugs):** For direct connection to ECU pins.
- **Tool Connector (DB25):** For connecting to diagnostic or programming tools.
- **DC (12V) Input:** For external power supply.
- **Power Buttons (Power, 12V(30), 12V(15)):** To control power to different circuits.
- **LED Indicators:** Show communication status and voltage.

2.2 Initial Connection

Connect the GT100 to a 12V power source using the provided power supply. Ensure the power indicator light illuminates.



Figure 3: Overview of GODIAG GT100 functions, including OBDII protocol detection, ECU connection, and power supply capabilities.

The GT100 supports various connection methods depending on the task:

- **OBDII Protocol Communication Detection:** Connect the GT100 to the vehicle's OBDII port. The LED indicators will show communication status.
- **ECU Bench Connection:** Use the banana plugs or DB25 connector to connect directly to the ECU pins for bench testing, programming, or diagnosis.

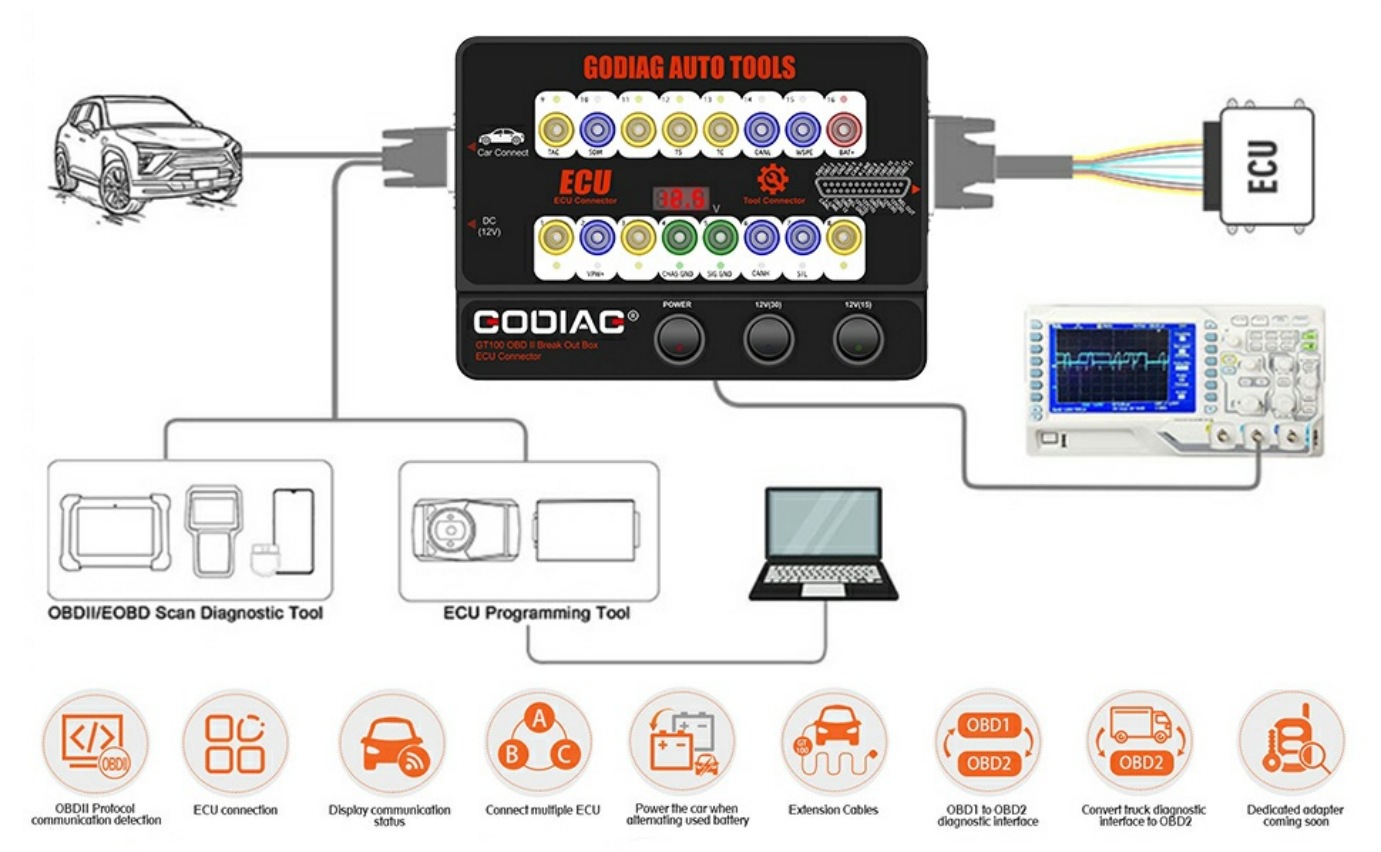


Figure 4: Comprehensive hardware connection diagram illustrating various setup scenarios for the GODIAG GT100, including OBDII, ECU bench, and extension cable connections.

3. Operating Instructions

This section provides detailed instructions for using the GODIAG GT100 for various automotive diagnostic and programming tasks.

3.1 OBDII Protocol Communication Detection

1. Connect the GT100's OBDII extension cable to the vehicle's OBDII port.
2. Connect your diagnostic tool to the GT100's OBDII port.
3. Turn on the GT100's power. Observe the LED indicators on the GT100. If the diagnostic tool is communicating correctly, the corresponding protocol indicator lights (e.g., CAN, K-Line) will turn on or flash.
4. Monitor the real-time voltage display on the GT100. Ensure the voltage remains above 11V during diagnostic procedures to prevent data corruption.



Figure 5: The GODIAG GT100 connected to a vehicle's OBDII port, showing active communication lights.

3.2 ECU Bench Connection and Testing

For bench testing or programming ECUs, use the provided jumper cables and DB25 connector.

1. Identify the correct pinouts for your specific ECU using a reliable wiring diagram.
2. Connect the appropriate banana plugs or DB25 pins from the GT100 to the corresponding pins on the ECU. Ensure power, ground, and communication lines are correctly connected.
3. Turn on the GT100's power. The digital display will show the current voltage.
4. Connect your ECU programming or diagnostic tool to the GT100.
5. Proceed with your desired ECU operation (e.g., reading/writing data, diagnosis).

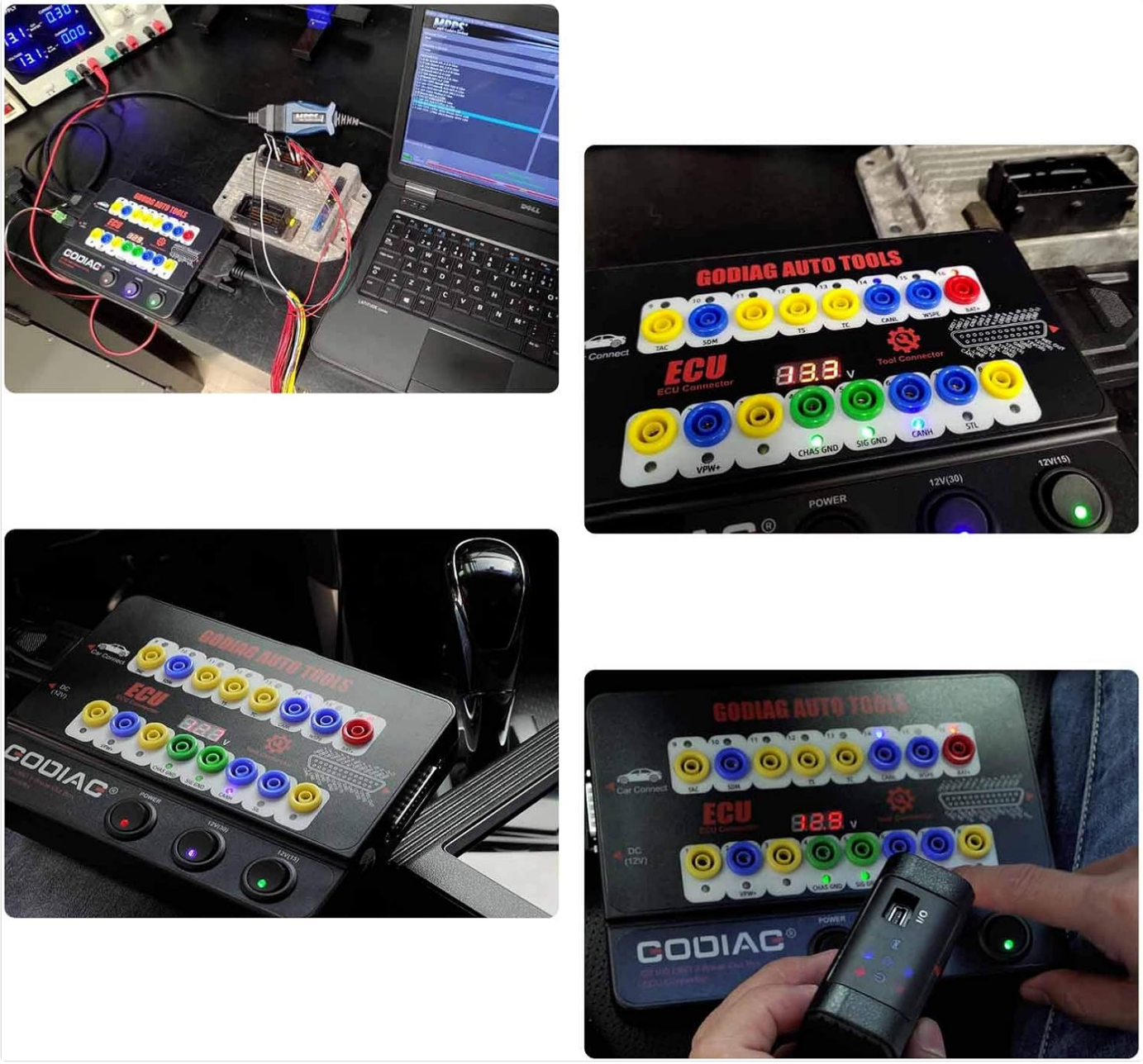


Figure 6: A typical bench setup showing the GODIAG GT100 connected to an ECU for testing and programming.

Important: Always double-check your wiring diagrams and pin connections to avoid damage to the ECU or the GT100.

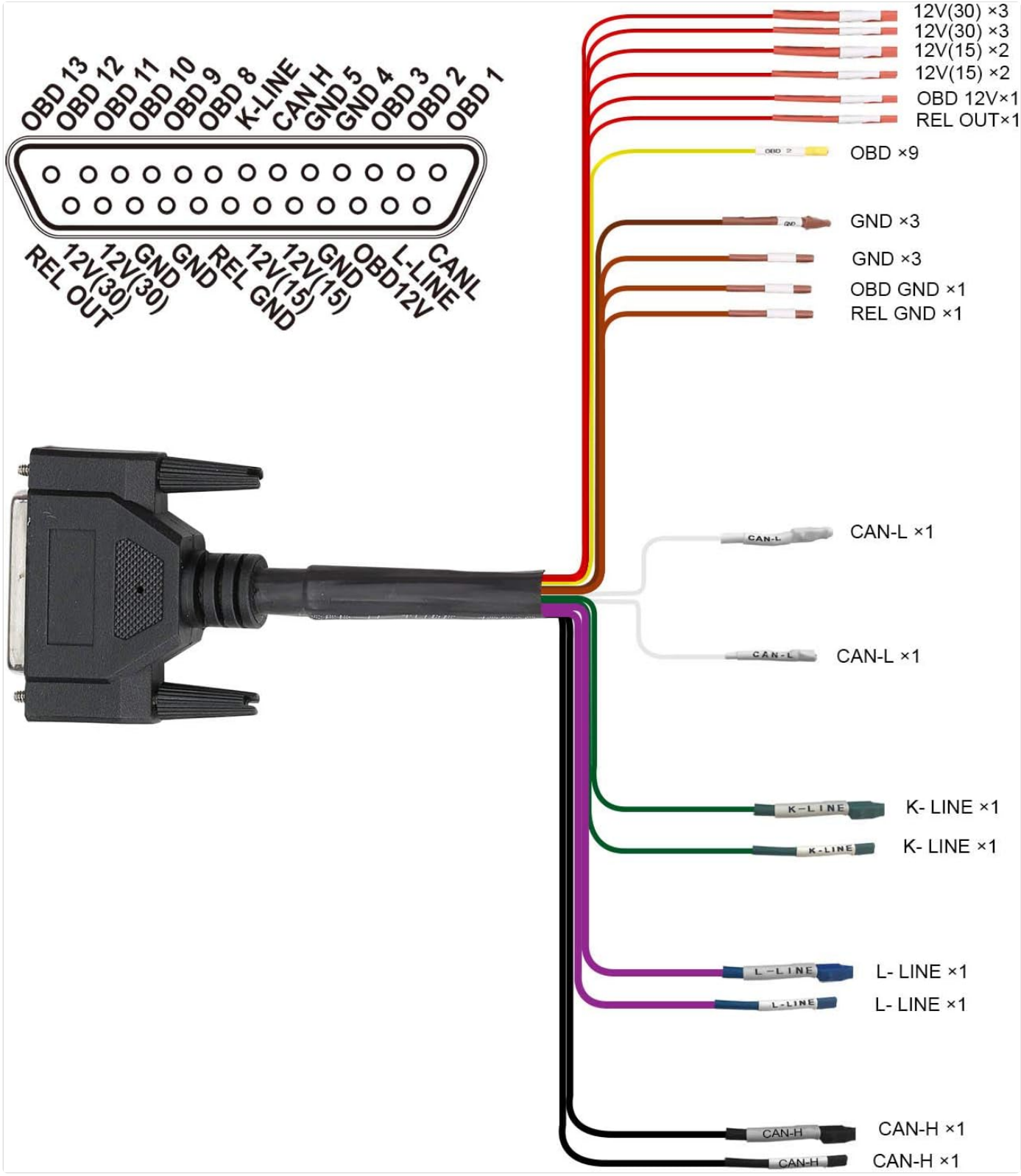


Figure 7: Pinout diagram for the DB25 connector, detailing the various connections for different protocols and power lines.

3.3 Powering Vehicle During Battery Replacement

The GT100 can maintain vehicle power during battery changes to prevent loss of ECU data.

1. Connect the GT100 to a fully charged auxiliary 12V battery (Battery A).
2. Connect the GT100's OBDII extension cable to the vehicle's OBDII port.
3. Turn on the GT100's power. Ensure the voltage display shows a stable 12V.
4. You can now safely remove the vehicle's main battery (Battery B) and replace it. The GT100 will supply continuous power to the vehicle's systems.

5. Once the new battery is installed, disconnect the GT100.

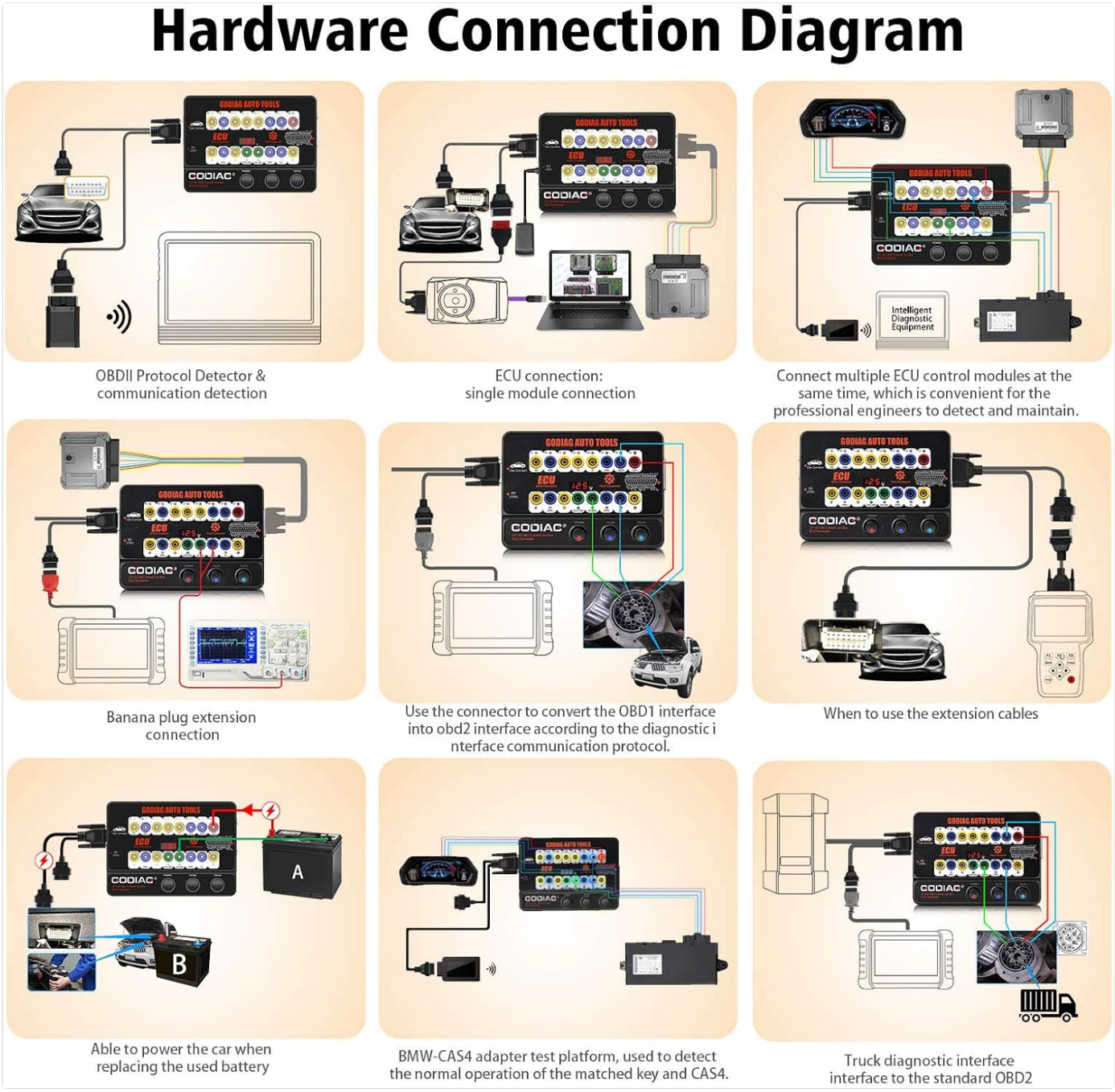


Figure 8: Illustration of using the GODIAG GT100 to provide continuous power to a vehicle's electrical system during battery replacement.

4. Maintenance

To ensure the longevity and optimal performance of your GODIAG GT100, follow these maintenance guidelines:

- **Cleaning:** Regularly wipe the device with a soft, dry cloth. Avoid using abrasive cleaners or solvents.
- **Storage:** Store the GT100 in a cool, dry place away from direct sunlight and extreme temperatures. Keep it in its original packaging or a protective case when not in use.
- **Cable Care:** Inspect all cables and connectors for signs of wear, damage, or corrosion before each use. Replace damaged cables immediately.

- **Software Updates:** Check the official GODIAG website for any available firmware or software updates for the GT100 to ensure compatibility and access to the latest features.

5. Troubleshooting

This section addresses common issues you might encounter with the GODIAG GT100 and provides solutions.

5.1 No Communication (LEDs Not Lighting Up)

If the communication indicator LEDs on the GT100 do not light up or flash when connected:

- **Check Power:** Ensure the GT100 is properly powered on and receiving 12V. Verify the power supply connection.
- **Verify Connections:** Double-check all cable connections between the GT100, the ECU/vehicle, and the diagnostic tool. Ensure pins are correctly inserted and secure.
- **Inspect Cables:** Look for any visible damage to the cables or connectors. A faulty cable can prevent communication.
- **ECU/Vehicle Status:** Confirm that the ECU or vehicle's electrical system is functioning correctly and is not in a fault state that would prevent communication.
- **Diagnostic Tool:** Test the diagnostic tool with another known good setup to rule out issues with the tool itself.

Video Reference: The provided video "Godiag GT100 OBDII Breakout Box ECU Bench Connector" demonstrates troubleshooting steps for communication issues, including checking for missing grounds and verifying CAN bus lights.

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Video 1: This video demonstrates the setup and troubleshooting of the Godiag GT100, including how to identify communication issues and verify pin connections on an ECU. It highlights the importance of correct grounding and power supply for proper operation.

5.2 Voltage Fluctuations

If the voltage display on the GT100 is inconsistent or drops significantly:

- **Power Source:** Ensure your 12V power source (e.g., auxiliary battery, power supply) is stable and capable of providing sufficient current.
- **Connections:** Check for loose or corroded connections that might cause resistance and voltage drops.
- **Short Circuits:** A short circuit in the wiring or the connected ECU can cause voltage drops. Disconnect components one by one to isolate the issue.

6. Specifications

Feature	Detail
Brand	GODIAG
Model Number	GT100+

Item Weight	2.29 pounds
Package Dimensions	9.13 x 7.32 x 3.23 inches
Country of Origin	China
Power Source	Battery Powered (external 12V)
Special Features	Diagnose and program for a single ECU by connecting the diagnostic tool or ECU programmer
UPC	889327047390

7. Warranty and Support

7.1 Warranty Information

For specific warranty details, please refer to the warranty card included with your product or contact GODIAG customer service. Typically, products are covered against manufacturing defects for a limited period from the date of purchase.

7.2 Customer Support

If you encounter any issues or have questions regarding the GODIAG GT100, please contact GODIAG customer support through their official website or the contact information provided in your product packaging. Provide your product model and serial number for faster assistance.
You can also visit the official GODIAG store on Amazon for more information and support:GODIAG Amazon Store

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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