

GODIYMODULES TJA1051T/3

GODIYMODULES USB to CAN Bus Converter (TJA1051T/3) Instruction Manual

1. INTRODUCTION AND OVERVIEW

The GODIYMODULES USB to CAN Bus Converter (TJA1051T/3 Non-Isolated version) is a versatile tool designed for CAN bus debugging and analysis. It facilitates communication between a computer and a CAN bus network, allowing for monitoring, sending, and receiving CAN data. This unit utilizes the TJA1051T/3 non-isolated CAN chip, supporting high baud rates up to 1 Mbps, and is compatible with open-source host computer software like Cangjaroo CAN for comprehensive protocol analysis.

2. FEATURES

- **Chipset:** Integrates the TJA1051T/3 non-isolated CAN chip for reliable performance.
- **High Baud Rate:** Supports CAN bus baud rates up to 1 Mbps.
- **Power Supply:** Conveniently powered via a standard 5V USB port.
- **Status Indicator:** Equipped with a three-color LED to display operational status.
- **Software Compatibility:** Designed to work with open-source host computer software for CAN protocol analysis, such as Cangjaroo CAN.

3. SETUP

Follow these steps to set up your USB to CAN Bus Converter:

1. **Termination Resistor:** The device includes a jumper cap to enable or disable the internal 120Ω termination resistor. Insert the jumper cap if a 120Ω termination resistor is required for your CAN bus network. If not needed, ensure the jumper cap is removed.
2. **Connect to CAN Bus:** Connect the CAN_H and CAN_L terminals of the converter to the corresponding CAN_H and CAN_L lines of your CAN bus network. The GND terminal can be connected to the CAN bus ground if necessary, but it is often optional depending on your setup.

- 3. Connect to Computer:** Plug the USB connector of the converter into an available USB port on your computer. The device should be recognized by your operating system, and it will appear in the Device Manager.
- 4. Install Software:** Install the necessary open-source host computer software for CAN protocol analysis (e.g., Cangjaroo CAN). Ensure your operating system (e.g., Windows 10) is supported by the software.

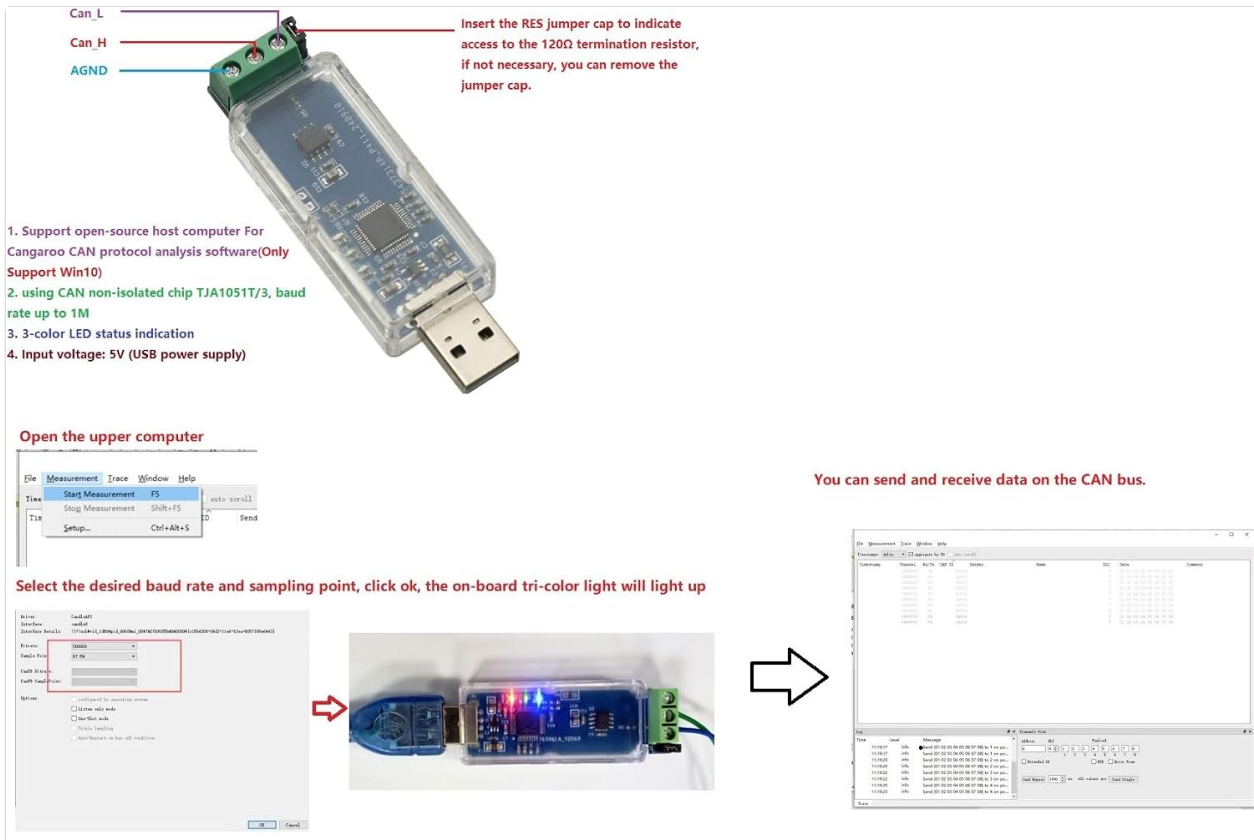


Figure 3.1: Connection diagram and initial setup steps for the USB to CAN Bus Converter.

4. OPERATING INSTRUCTIONS

Once the hardware is connected and the software is installed, proceed with the following steps to operate the converter:

- 1. Launch Host Software:** Open the installed CAN protocol analysis software (e.g., Cangjaroo CAN) on your computer.
- 2. Configure Baud Rate:** Within the software interface, select the desired CAN bus baud rate and sampling point that matches your CAN network's configuration.
- 3. Activate Device:** Click the "OK" or "Connect" button in the software to activate the connection. The three-color LED on the converter board will illuminate, indicating a successful connection and readiness for operation.
- 4. Send and Receive Data:** You can now use the software to send and receive data packets on the CAN bus. The software will display incoming messages and allow you to compose and transmit outgoing messages.



Figure 4.1: USB to CAN converter in operation with host software.



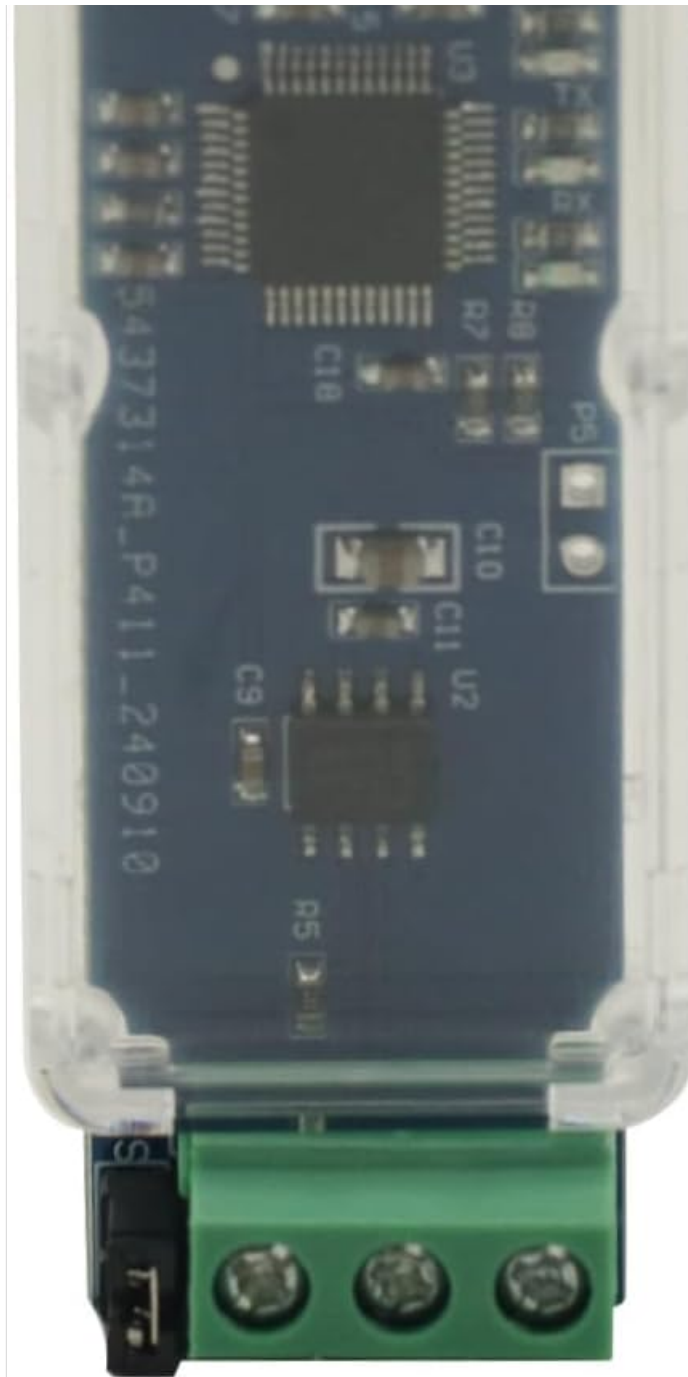


Figure 4.2: Top view of the GODIYMODULES USB to CAN Bus Converter.

5. SPECIFICATIONS

Feature	Description
Brand	GODIYMODULES
Model	TJA1051T/3 (Non-Isolated)
Connectivity Technology	USB
Input Voltage	5V (USB Powered)
Max Baud Rate	1 Mbps
Status Indicator	Three-color LED

Feature	Description
Compatible Devices	PC, Laptop, Tablet
Supported Operating Systems	Windows (for Cangjaroo CAN), Linux
Included Components	1 x USB to CAN Bus Converter Unit

6. TROUBLESHOOTING

- **Device Not Recognized:** Ensure the USB cable is securely connected. Check your computer's Device Manager to see if the device appears. If not, try a different USB port or computer. Ensure any necessary drivers are installed.
- **No CAN Communication:** Verify that CAN_H and CAN_L connections are correct and secure. Check the baud rate setting in your software to ensure it matches the CAN bus network. Confirm the termination resistor setting (jumper cap) is appropriate for your network.
- **LED Indicator Status:** Refer to the software documentation for specific LED color meanings. A non-illuminated LED typically indicates no power or no active connection.

7. MAINTENANCE

To ensure the longevity and proper functioning of your USB to CAN Bus Converter, follow these general maintenance guidelines:

- **Cleaning:** Keep the device clean and free from dust. Use a soft, dry cloth for cleaning. Avoid liquid cleaners.
- **Storage:** Store the converter in a dry environment, away from direct sunlight and extreme temperatures.
- **Handling:** Handle the device with care to avoid physical damage. Do not drop or subject it to strong impacts.
- **Disassembly:** Do not attempt to disassemble the unit. Disassembly may void any applicable warranties and could damage the internal components.

8. WARRANTY AND SUPPORT

This product is typically covered by a 15-day return policy from the date of purchase. For specific warranty details, technical support, or assistance with product issues, please contact the seller or manufacturer directly. Information regarding extended protection plans may be available from third-party providers.