

# Communication lost between the extended CAN bus and the power transformer in the power system



## Overview

This article delves into the common sources of CAN bus errors—specifically, electromagnetic interference (EMI), termination issues, and wiring problems—and provides guidance on identifying and resolving them. Electromagnetic interference is a common cause of CAN bus errors. How to solve the "lost data" problem in CAN bus communication?

In CAN bus communication, lost data may cause communication failure or inaccurate information transmission. Discrete solution can be implemented using a digital Isolator such as ISO7721, and. CAN bus nodes are connected over a two-wire bus with 120-ohm nominal twisted-pair cable. Note: For in-depth detail about the physical layer, we recommend you read Application Report (SLLA270) from Texas Instruments. Its reliability and fault tolerance make it indispensable—but like any communication network, issues can arise. Troubleshooting CAN Bus problems. In this tutorial you will learn about the basics of CAN error handling, the 5 CAN bus error types, the CAN error frame and CAN node error states. What are CAN bus errors?

I am attempting to run the drive system (HVB, PD module, and Inverter) outside of an Electric vehicle (Nissan Leaf) by extending all wires of the drive system from the car with around 6. I used unshielded twisted pairs for the CAN bus, but apparently extending the EV CAN bus wires is.

## Article Content

How to design a robust automotive CAN system

ESD events can be caused by manual handling of CAN connector during mounting or repairing and sometimes by indirect coupling depending on the location of the CAN bus lines inside the vehicle.

Understanding CAN: A Beginner's Guide to the

In summary, the CAN bus is widely adopted in various industries, particularly in automotive and industrial applications, for its ability to facilitate

Why is the CAN communication not working after you change the

A reboot of the ET200SP and consequently the CAN communication module (power off/on) also causes the configuration to be retransmitted to the CAN module by the IO Controller (CPU).

Introduction to the Controller Area Network (CAN) (Rev

The CAN communications protocol, ISO-11898: 2003, describes how information is passed between devices on a network and conforms to the Open Systems Interconnection (OSI) model that is defined

Diagnosing CAN Bus Errors: Identifying EMI, Termination, and Wiring

Despite its robustness, the CAN bus can still encounter errors that can disrupt communication and lead to system malfunctions. Diagnosing these errors is crucial for maintaining

CAN Bus Explained (2025): Frames, Arbitration & Tools

CAN bus is the communication system used by many vehicles, machines, and embedded systems to exchange control data between electronic

CAN Bus Troubleshooting Guide

A guide on how to find and eliminate the most common problems and errors when setting up CAN bus networks and CAN-based systems.

Troubleshooting The CAN Bus: Navigating Common

Troubleshooting the CAN Bus requires a systematic approach to identify and resolve common failure scenarios. By understanding the architecture of the CAN Bus

CAN Bus Troubleshooting: A Technical Guide

The Controller Area Network (CAN Bus) is one of the most robust and widely used communication protocols in automotive, industrial, and

CAN Bus Explained

For example, the CAN bus enables quick and reliable sharing of information between your car's brakes and engine. Let's imagine your car is like the human body: The

### CAN-Bus Troubleshooting Guide

CAN communication problems may result due to wrong voltage levels in the BUS is incorrect. Each node contains a CAN transceiver that outputs

### Diagnosing CAN Bus Errors: Identifying EMI, Termination, and Wiring

Understanding CAN Bus Errors The Controller Area Network (CAN) bus is a robust vehicle bus standard designed to allow microcontrollers and devices to communicate with each other in

### CAN Bus Explained: Nodes, Frames, and ECUs

Understanding CAN bus is essential whether you're developing vehicles, monitoring industrial systems, or working on embedded electronics. As

### CAN Bus Errors Explained

In this tutorial you will learn about the basics of CAN error handling, the 5 CAN bus error types, the CAN error frame and CAN node error states. To get practical, we

### CAN BUS Diagnosis, Step by Step

With 8 steps you will be able to diagnose a fault in the CAN BUS of a vehicle without the need to invest too much time.

### Common CAN bus Problems: A Troubleshooting Guide

Take a look at common CAN bus problems and walk through troubleshooting and diagnostics with these intricate systems.

### Top Design Questions About Isolated CAN Bus Design

Isolation of CAN bus is accomplished by placing an isolation barrier at digital logic interface between the MCU and CAN transceiver. System designers use either discrete or integrated solutions for isolating

### Troubleshooting CAN bus network after extending

I used unshielded twisted pairs for the CAN bus, but apparently extending the EV CAN bus wires is causing communication problems and I was

### CAN BUS Troubleshooting Guide (with Video)

CAN Bus Termination There should be a 120-ohm termination resistor located at each end of the bus to prevent signal reflections. When you measure the resistance between CAN HI to CAN LOW on a wiring harness you should measure 60 ohms. This measurement should be conducted with the device

### How to Diagnose CAN Bus Issues | CAN Bus Analyzer

CAN (Controller Area Network) can be difficult to diagnose. Check out our guide on CAN diagnostics, testing procedures & troubleshooting tools.

### CAN Bus Troubleshooting: A Technical Guide

Learn how to troubleshoot CAN Bus issues with this detailed guide. Covers physical layer checks, wiring, terminations, error frames, and protocol

### CAN Bus Errors: Causes, Diagnostics & Fixes (2025)

CAN Bus errors stem from a variety of issues that disrupt the normal communication flow between the network's electronic control units (ECUs). These errors can

How to solve the "lost data" problem in CAN bus communication?

In CAN bus communication, lost data may cause communication failure or inaccurate information transmission. Here are some possible solutions: Check cable connections: Make sure all

What is the controller area network (CAN) bus?

The controller area network (CAN) bus was developed to support the networking of large numbers of electronic control units (ECUs) in automobiles.

## Contact Us

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