PHILIPS

LED CANbus Adapters

Philips LED CANbus Adapter

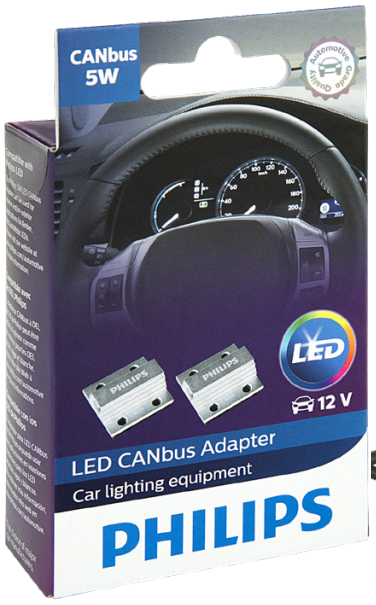
The simple, easy-to-install solution for eliminating common LED bulb issues.

Automotive LED lights are great. They're rugged, they last far longer than conventional bulbs, and they can offer brilliant illumination. But in some vehicles, they can also trigger a false bulb failure warning or a 'fast flashing' condition. Here's why that happens and how it can be fixed with the Philips LED CANbus Adapter.

A **CANbus (Controller Area Network Bus)** is a computer network that connects systems in modern vehicles. Any component on the network can send and receive data using the CANbus.

Some cars use the CANbus system to send electric impulses to verify the functioning of a bulb. Because LED bulbs have a lower wattage, and draw much less power than conventional incandescent bulbs, when the system runs a check, the power emissions of LEDs are too low to be detected and the CANbus creates a false warning that one of the lights has failed.

This can also cause the vehicle's turn signals to fast flash due to the low wattage that is being produced by the LED.



Philips LED CANbus Adapters are available in:

CANbus 5W – designed for use with interior applications and license plate lighting.

CANbus 21W – designed for exterior LED applications.

To prevent these false failure warnings, Philips has developed **LED CANbus Adapters**. Installation of the adapter takes only minutes and requires only a pair of pliers.

The Philips CANbus Adapter will also eliminate 'fast flashing' from turn signals which might also occur when replacing incandescents with LEDs.

Philips CANbus Adapter (CA) Frequently Asked Questions

My dashboard displays a 'bulb out' message even though all lights are working. What should I do?

Some CANbus systems treat low power consumption from bulbs as a sign of a burned-out bulb, which causes a warning on the dashboard. Since LED bulbs consume much lower power than the original incandescent bulbs, they can trigger this warning in some vehicles. If your car has a dashboard error message after installing an LED light, you'll want to install a Philips Ultinon LED CANbus Adapter (CA). Installing the Philips CA in the circuit prevents this problem. Installation takes only minutes and requires only a pair of pliers.

After installation of the LED, my car shows 'fast flash' errors, as if my light is out or broken. What should I do?

Error messages can appear because the LED bulb wattage is much lower than conventional bulbs, which can make some outage warning systems unable to detect the bulb.

If your car shows 'fast flash' after installing an LED light, you'll want to install a Philips CA. Installing the Philips CA in the circuit prevents this problem. Installation takes only minutes and requires only a pair of pliers.

After installation of the LED, my car does not start or runs/performs poorly. What should I do?

After installation of LED bulbs, some cars may go into 'limp home' mode. The car's computer is looking for the resistor value of the incandescent bulb, but the LED has a different resistor value. This difference in resistor values can cause the car to go into 'limp home' mode, and the driver will usually receive a message that the car has a problem. Thankfully, this happens rarely, and the issue can be easily resolved.

First, verify that the 'limp home' mode is being caused by the LEDs by replacing them with the incandescent bulbs. If the 'limp home' mode clears, it was most likely caused by the LED bulbs. This means that you'll want to install a Philips CA to provide the resistor value that the vehicle computer expects to see.

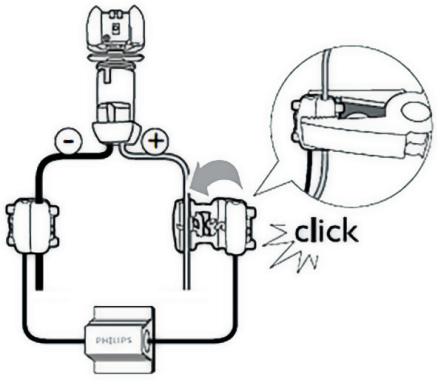
Note: in rare cases, vehicles won't adapt to a CANbus Adapter.

Philips CANbus Adapter (CA) Frequently Asked Questions (contd.)

How do I install a CANbus Adapter?

If your car has a dashboard error message, experiences fast flash, or goes in limp home mode after installing an LED bulb, you may need to install a Philips Ultinon LED CANbus Adapter (CA).

See the image below for installation instructions:



CA is installed in parallel with the LED light.

Which Philips CANbus Adapter do I need: 5W or 21W?

The Philips CANbus 5W is used for interior applications and license plate lighting.

The Philips CANbus 21W is used for exterior applications.

Why is there a polarity issue with LED bulbs?

Regular incandescent bulbs can draw current in either direction. There are no 'positive' or 'negative' sides on the bulb. The bulb will work regardless of which direction it is inserted.

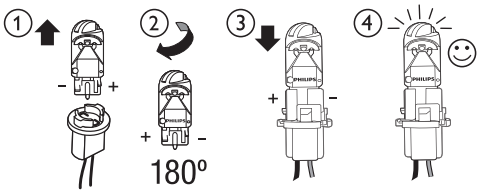
LED bulbs, however, only draw current in one direction. So if the LEDs are inserted incorrectly, they will not work. The solution is to simply flip the LED.

If your Ultinon LED bulb doesn't light up when you first install it, take it out, flip it 180°, and reinstall it.

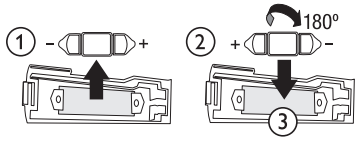
1. Remove the LED from the socket
2. Flip the LED 180°
3. Insert the LED back into the socket
4. Check to ensure the LED lights up

Do not force the LED or alter the socket. Be sure that you have the right LED for your application.

Wedge-based LED



Festoon LED



Philips Ultinon LED interior and exterior bulbs

Availble in brilliant blue, 6000k white, intense red, and intense amber.

For best LED results

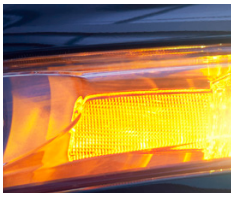
Pairing the correct lens with your LED bulb can affect the performance and intensity of your bulb's light output.

To ensure the brightest light output is coming through your vehicle's lens, pair a red bulb with a red lens, a white bulb with a clear lens, an amber bulb with an amber lens, and, in some applications, an amber bulb with a clear lens. See examples below:

✓Correct
Red LED bulb
behind red lens

X Incorrect
White LED bulb
behind red lens

✓Correct
Amber LED bulb
behind clear lens



✓Correct
Amber LED bulb
behind amber lens

X Incorrect
White LED bulb
behind amber lens

Intense Red – Use behind red lens

6000K White – Use behind clear lens

Cool Blue – Use behind clear lens

Intense Amber – Use behind amber or clear lens

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