



TROUBLESHOOTING GUIDE

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VEHICLE ERRORS:

1. I GET ERROR MESSAGES/LIGHTS ON THE INSTRUMENT CLUSTER AFTER INSTALLING CANNY.

Please ensure CANNY has not been connected to the vehicle by soldering the CAN wires, and the splice with the supplied crimp connectors has been made in full (no original wires missing from the crimp). Also ensure the blue/yellow twisted pair from CANNY are not run alongside any original battery wiring on the vehicle.

2. MY AUTOMATIC HIGH BEAM TURNS OFF ONE OR TWO SECONDS AFTER ACTIVATING.

Not all automatic high beams are able to cope with high-performance auxiliary lighting also being paired to the car. In this case, it is necessary to deactivate the automatic high beam in the settings of your vehicle.

CANNY WIRING:

1. WHERE DO I WIRE MY CANNY INTO?

CANNY needs to be wired into the vehicle with a constant 12v source, a good ground connection, CAN HI/CAN LO (if not contactless). The 4 output wires (Purple/Grey/Green/Brown) can then be connected to your lighting accessories in any order, as the final setup for these is completed in the CANNY app. We have a [YouTube video](#) showing the installation process.

2. HOW DO I FIND THE CAN CONNECTION ON MY VEHICLE?

Once the serial number of your CANNY has been scanned into your app via the QR code or manually entered, a full list of available vehicles will be shown in the app. Once you have selected your vehicle, there will be an option to download instructions which will give you the wiring information for your vehicle. This CAN connection could be at the headlight loom, under the dashboard, along the vehicle sills, or other locations depending where the best information for your vehicle can be read from.

3. WHERE CAN I MAKE THE 12V CONNECTION TO CANNY?

For engine bay applications it is best to go directly off the positive battery terminal. There may be cases where the vehicle starter battery is not located in the engine bay and therefore you will need to connect to the remote jump start post (BMW and Audi are good examples of this) or to the main power lead feeding any engine bay fuse boxes. For interior connections, it is best to use an 'Add a Fuse' style device to make a fused connection into the interior fusebox.

4. WHERE CAN I MAKE THE GROUND CONNECTION TO CANNY?

It is best to attach to an existing ground point in the engine bay, rather than the negative battery terminal, especially on more modern vehicles with AGM and Lithium starter batteries. We recommend looking for a negative jump start post as a suitable location as these often unbolt with a 10mm or 17mm spanner depending on vehicle, and are designed to handle large amounts of power. When connecting CANNY inside the vehicle, it is best to connect the ground lead to an existing ground point in the vehicle. If this is not possible, the next best option is the steel dashboard frame, as these are unpainted the majority of the time, and will always give a good connection to ground.

5. I HAVE A CANNY DIRECT CONNECT, HOW DO I CONNECT TO THE CAN WIRES OF THE VEHICLE?

Please splice the blue/yellow wires from CANNY to the appropriate CAN wires on the vehicle. For all engine bay connections please use the provided red heat shrink butt splice connectors for a reliable and waterproof connection. We have a [YouTube video showing this](#) installation.

6. I HAVE A CANNY CONTACTLESS CONNECT, HOW DO I CONNECT TO THE CAN WIRES OF THE VEHICLE?

Please cable tie the contactless reader head to the CAN wires of the vehicle, ensuring the markings on the reader PCB correspond with the correct CAN wire. We have a [YouTube video showing this](#). If the contactless reader is going to be mounted in an area which is exposed to moisture, we recommend applying self-amalgamating tape to bring the water resistance value from [IP64 to IP66](#).

CANNY SETUP:

1. I HAVE CONNECTED ALL OF MY WIRES TO CANNY, INCLUDING THE CAN WIRES, BUT I DON'T GET AN OUTPUT FROM CANNY.

Have you set the device up in the app as the final stage of the installation process? If not, all 4 output channels will be set to nothing and you will not get an output. You will need to select the wires you have connected to in the app and give them the correct function e.g. High beam or Ignition.

2. WHEN SETTING UP CANNY FOR THE FIRST TIME, THE APP TELLS ME I NEED A FIRMWARE UPDATE, DO I NEED TO DO THIS?

Yes, it is required to ensure your CANNY is as up to date as possible. We are always looking to make function or reliability improvements to the device, the app, and even the vehicle specific configurations. By having your CANNY on the latest firmware you will ensure that you will have the best possible version of all of the above.

3. I HAVE CONNECTED MY CANNY PROPERLY FOLLOWING ALL OF THE STEPS, INCLUDING SETTING UP THE OUTPUTS IN THE APP, BUT I STILL DO NOT GET ANY OUTPUT.

DIRECT CONNECT:

Before getting in touch with Lazer, it is best to check the CAN wires for voltage to ensure the splice that has been made correctly and the device is getting a CAN signal. To do this, unplug CANNY from the 12 pin connector, but have the vehicle ignition on or engine running. Using a multimeter, check for voltage between the blue/yellow wires and the vehicle ground. You should see around 2.5v on both wires, with the blue wire often being slightly higher than yellow. If this is not the case, please check your splices. If you do have voltage, we may need to help you look into this in more depth. Please contact us on technical@lazerlamps.com for support.

CONTACTLESS CONNECT:

Please ensure both cable ties are securely holding the CAN wires to the reader pads of the exposed circuit board in order for the data to be read.

4. I HAVE TRIED TO UPDATE THE FIRMWARE ON CANNY (AS PART OF THE INSTALLATION PROCESS) BUT IT HAS FAILED.

When carrying out a firmware update, please ensure the phone/tablet carrying out the update has a good internet signal from 5G or WiFi, and ensure the device does not go out of range of the CANNY device at this time. The update can also sit at 99% for a longer than expected period of time, if this is the case, please allow the update to run for approx. 10 minutes before trying again. In rare cases it may be necessary to disconnect CANNY from power to reset it before carrying on again.

5. MY CANNY DEVICE CANNOT BE FOUND VIA BLUETOOTH DURING THE SETUP PHASE.

Please ensure you are only trying to connect the device to Bluetooth from the CANNY app. It is not possible to connect to CANNY via the phone/tablets native Bluetooth options list. Please ensure you press the search button when shown on the page so that the outside of the search button starts to scroll. If your device then still cannot be found, try the following:

Check for 12v and ground – using a multimeter, check for 12v over the red/black pins in the CANNY 12 pin connector. If you are not getting 12v, then it will be necessary to check the 12v connector is suitable, the inline fuse has not blown, and the ground cable is at a suitable ground connection (not painted etc). If after checking you have 12v at the connector but the device still doesn't show up in the Bluetooth search, please get in contact with us at technical@lazerlamps.com with your device serial number so we can help diagnose this with you.

6. I HAVE LOADED MY VEHICLE SETUP TO THE CANNY BUT GET AN ERROR MESSAGE WITH INVALID JSON (OR SIMILAR).

Before contacting us, please ensure you have a good internet signal from 5G or WiFi on the installation phone/tablet. There are cases where a poor internet connection leads to a partial corruption when the vehicle is loaded to the device. If you have good signal but the issue happens again, please contact us at technical@lazerlamps.com with your device serial number and the vehicle you are trying to install this on, so we can help diagnose this for you.

ONGOING TROUBLESHOOTING:

1. CANNY HAS BEEN IN MY VEHICLE WORKING FINE FOR X AMOUNT OF TIME, BUT NOW IT DOES NOT ACTIVATE MY LIGHTS. IF I CONNECT VIA THE APP, I CAN TURN THE LIGHTS ON/OFF IN MANUAL MODE.

Please ensure you are on the latest firmware on your CANNY device (or at least 2.3.0 upwards). If the firmware is up to date then it will be necessary to disconnect CANNY for a few hours to give the device a reset, and then try again once powered back on. If this does not resolve your problem, please also check your CAN connections at the 12 pin connector with a multimeter to help rule out there is not a connection problem with the device. If the above has been checked over with no resolution, please get in touch at technical@lazerlamps.com and we can try to assist. For contactless reader devices, please check the reader head for water, as this will prevent the data being read from the CAN wires. If the reader is wet, we recommend [protecting it with self-amalgamating tape](#) to improve the water resistance.