⌄ **r/klippers** • 3 yr. ago                                                                                                  •••
Klipper    zogthegreat

# Can't configure network for CANBus device

Hi everyone!

I had a little accident yesterday where a 5v wire came off of one of my LM2596 converters and it "baked" my Raspberry Pi! I grabbed a Dell Optiplex and installed Ubuntu server 22 and restored everything from my backups.

However, I can't seem to get my network configured properly for the CANBus. I started with:

```
sudo nano /etc/network/interfaces.d/can0
```

Which gave me an error that there was no folder interfaces.d, so I created the directory with

```
sudo mkdir /etc/network/interfaces.d
```

and then I created the file with the above command and inserted the configuration

```
auto can0iface can0 can staticbitrate 500000up ifconfig $IFACE txqueuelen 1024pre-up
ip link set can0 type can bitrate 500000pre-up ip link set can0 txqueuelen 1024
```

I rebooted the device and tried connecting to the CANBus, but I get the following: `pi@9020M:~$ ~/klippy-env/bin/python ~/klipper/scripts/canbus_query.py can0`

```
Traceback (most recent call last):File "/home/pi/klippy-env/lib/python3.10/site-
packages/can/interfaces/socketcan/socketcan.py", line 679, in _send_oncesent =
self.socket.send(data)OSError: [Errno 100] Network is downDuring handling of the above
exception, another exception occurred:Traceback (most recent call last):File "/home/pi/
klipper/scripts/canbus_query.py", line 64, in <module>main()File "/home/pi/klipper/
scripts/canbus_query.py", line 61, in mainquery_unassigned(canbus_iface)File "/home/pi/
klipper/scripts/canbus_query.py", line 25, in query_unassignedbus.send(msg)File "/home/
pi/klippy-env/lib/python3.10/site-packages/can/interfaces/socketcan/socketcan.py", line
658, in sendsent = self._send_once(data, msg.channel )File "/home/pi/klippy-env/lib/
python3.10/site-packages/can/interfaces/socketcan/socketcan.py", line 681, in
_send_onceraise can.CanError("Failed to transmit: %s" % exc)can.CanError: Failed to
transmit: [Errno 100] Network is down
```

The device is present: `pi@9020M:~$ lsusb......Bus 003 Device 002: ID 1d50:614e OpenMoko, Inc. stm32f103xeBus 003 Device 004: ID 1d50:606f OpenMoko, Inc. Geschwister Schneider CAN adapter`

I'm assuming that this has to do with the changes to the networking that started a few years ago. I did use a YAML validator to check the network setup and it *seems* good.

Here's a link to my klippy.log

klippy.log

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**SonOfJokeExplainer** • 3y ago • Edited 3y ago

I got CAN to work on a PC running Ubuntu:

Create a file /etc/systemd/network/80-can.network with the following contents:

```
[Match]
Name=can*

[CAN]
BitRate=500000
```

Then enable and start systemd-networkd:

```
sudo systemctl enable systemd-networkd
sudo systemctl start systemd-networkd
```

At this point you should be able to run the `canbus_query.py` script and get the UUID to populate your config.

**2**       **Reply**

**desuuuu_** • 3y ago

To add to that, if you want to set the txqueuelen when can0 is brought up with systemd, you can create a service file /etc/systemd/system/can-up.service containing this:

```
[Service]
Type=oneshot
ExecStart=/usr/sbin/ifconfig can0 txqueuelen 128

[Install]
WantedBy=sys-subsystem-net-devices-can0.device
```

Which you also need to enable with:

☰     🔴     🔍     **r/klippers** ⊗            💬    ➕ **Create**    🔔    🐻

And you're good to go!

    **2**        **Reply**

**SonOfJokeExplainer** • 3y ago

Thanks for that, I haven't had a need to set the txqueuelen but I have wondered about how it would be done with systemd services.

    **1**        **Reply**

**NickiDotDK** • 1y ago

Spot on! This fixed my issues with the can0 network not running. After a few hours of debugging I found this post! Amazing :)

    **1**        **Reply**

**SonOfJokeExplainer** • 1y ago

Glad I could help! You might be able to bump that bitrate up to 1000000, by the way (although I'm not sure how much it really matters).

    **1**        **Reply**

**NickiDotDK** • 1y ago

Already have that :)

    **1**        **Reply**

**mcn_cheez** • 2mo ago

Just found this after I had the same issue. Thanks!

    **1**        **Reply**

**peviox** • 3y ago

Maybe you find an answer here [https://github.com/rootiest/zippy-klipper_config/blob/master/guides/Guide-pico_can.md](https://github.com/rootiest/zippy-klipper_config/blob/master/guides/Guide-pico_can.md)

    **1**        **Reply**