BIO | Grammee Troubleshooting Guide

CONTENTS
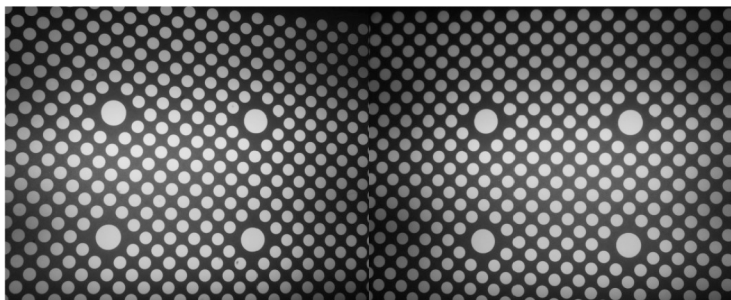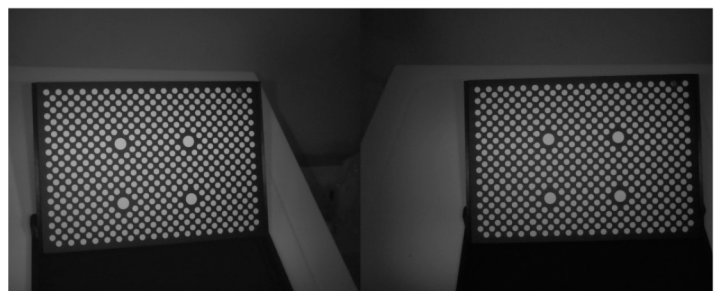
5 FIRST TIME USER ERRORS TO AVOID

1). Calibrating too far way

This is the correct calibration distance	This is the wrong calibration distance

When calibrating, you MUST capture dots right to the edge of the images, so the cameras can be calibrated right to the edge.
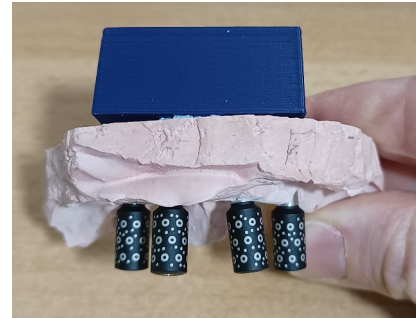
If you do not, the post scan may never finish because accurate data can never be collected.

Its OK to let the small dots go off the screen, so long as the 4 big dots remain in shot in both cameras.

2). Scanning posts upside down.

Posts must be the <u>right way up</u> for a lower jaw!   **Posts must be <u>upside down</u> for an upper jaw!**
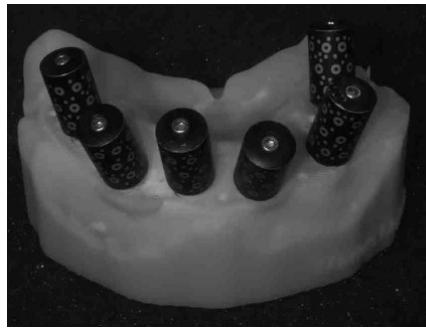

The scanner must see the posts in the expected orientation, else they will not be detected.

(If you want to detect an upper jaw from a model on your desk you can turn the camera upside down)!

3). Scanning from above

These posts will not be detected

If the posts are scanned from a steep angle they can not be seen, try to scan head on. This error is most common when scanning models on a desk.

3). Scanning from too far away, or too close.
Scan with 7cm (~3 inches) between the front of the camera and the **front** post. There is only a few cm of range, so its important to practice finding this sweet spot naturally.

4). Learn how to merge scans, in case your patients mouth is crowded.
If you have a patient with 5 or more implants to scan, you may be able to scan them in one go, but its worth knowing how to do 2 scans and merge – just in case the posts shadow each other too much. See our training video for a full run through.

5). Don't autoclave the post holder.
This style of post holder will melt!

An autoclave proof holder is coming soon.

Turning on/off

Short push the on/off button to turn the scanner on.

- The green LED lights should come on during boot up.
- The LCD display should switch from black to green after 4 minutes. When the display is green the device has booted up and is ready to use.

Long push the on/off button to turn the scanner off.

Battery charge

This is the battery charge indicator:

- When the battery is full, 4 blue battery bars should will be lit.
- If no blue bars show, the battery is flat or the scanner is switched off.
- During charging the number of battery bars lit will slowly increase.

If the battery is flat, the LEDs may flicker, but the device will not start.

CALIBRATION IMAGE COLLECTION SLOW

Calibration image capture should take less than 30 seconds. If it is taking a lot longer than this, try:

- upgrading the software and firmware to at least v1.4.06 and firmware v1.2.10
- restarting the computer, or using USB mode rather than Wi-Fi.
- Make sure you do not have a double connection to the scanner (e.g. laptop WiFi and Dongle WiFi connected at the same time).

Slow image collection could hinder the scan later.

POSTS NOT DETECTED

Possible Reason	Remedy
Upper/ Lower jaw incorrectly selected - Our scanner system needs to know if the posts are upright (lower jaw) or upside down (upper jaw).	You must select upper or lower jaw scan correctly.
Post set number or calibration plate number incorrect. - Each post set is unique, and the software needs to know which set it is looking for. - Each calibration plate is unique also, and setting the number incorrectly will result in subtle errors.	Ensure the post set and calibration plate numbers are correctly setup in the software Settings.
Computer overloaded with scan data. - Mostly happens if using USB scanning with v1.3 software.	1). Upgrade to the latest software and firmware. 2). Use Wi-Fi. 3). If using USB hold the trigger for short burst (e.g. one side to side sweep), and release the trigger to allow your computer to catch up.
Some posts at the back of the mouth are eclipsed to the camera.	1). Try to manoeuvre the camera to an angle where the post can be seen.

- To detect a post the both cameras must be able to see the post at the same time. - Over the course of the scan 5 big dots must become visible on each post for a few frames.	2). Do a "Merge" scan instead of trying to scan all posts at once. Scan 4 posts, then another 4 posts, and merge the scans together. The training video has more details.
The scanner LCD turns green as if the scan is finished, but then later the camera restarts unprompted. - This can happen when there is heavy Wi-Fi interference from other devices on the same frequency.	1). Update to the latest software and firmware. 2). Use USB.
Scan distance is incorrect - The scan distance is the most critical aspect of the scan.	Aim to scan with about 7cm from the front of the camera to the first post.
Incorrect Calibration - The scan may not finish.	Tips: - When calibrating be close enough so that the small dots fill the camera. This way the whole camera frame gets well calibrated. - Make sure that the 4 big dots are always in shot on both cameras. - Follow the calibration motion shown in the training video.

WIFI DROPOUT ISSUES

If the scanner LCD flash to green (or shows "disconnected") and then again back to scanning mode, it is likely a WiFi drop out. The system will recover and you can carry on scanning, but it is a sign of an unstable WiFi connection.

| Possible Reason	Remedy
Busy WiFi – many users on the same WiFi channel (like at a conference).	Use USB.
Weak WiFi signal (the laptop is far from the scanner).	- Put the laptop less than 3 metres from the scanner. - Use a good WiFi dongle (the one on the right has an excellent antenna, the one on the left does not).
Laptop CPU overloaded	- Upgrade to the latest software (at least v1.4.06). - Please see our laptop buying guide.

USB CONNECTION ISSUES

If you can not connect to the scanner via USB:

1. Check in settings that USB is selected as the connection mode.
2. Ensure you are using the original USB cable (made by JuiceBitz).
3. Using Wi-Fi via the Wi-Fi dongle is a good idea, (and you can still use your laptop Wi-Fi for internet).

4. Turn off VPN/ anti-virus software. For example NordVPN will clash with the scanner connection, and McAfee is know to cause connection issues.
5. Sometimes the Windows driver used by the scanner does not install automatically – see below.

Checking if the driver is installed

- The driver is called the "USB Ethernet/RNDIS Gadget" driver. Open the device manager – you should see it listed under "Network Adapters":
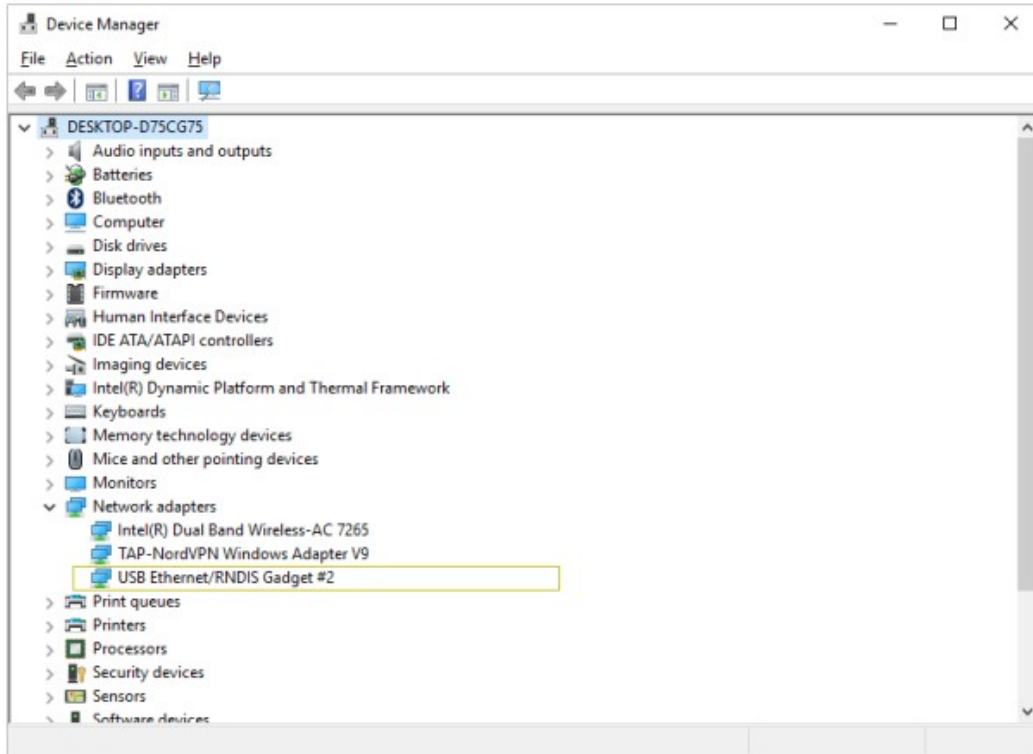

Installing the driver

- If the driver is not installed, you may try to install the RNDIS driver manually (feel free to contact support for help with this issue).
- The driver can be downloaded from the tupel3d.co.uk:
- Please UNZIP the downloaded file: right click the downloaded file and select "Extract all...".
- Now install the RNDIS driver by finding the unzipped driver file called "RNDIS.inf" in the "mod-rndis-driver-windows" folder.
- Right click on "RNDIS.inf", and select "Install".
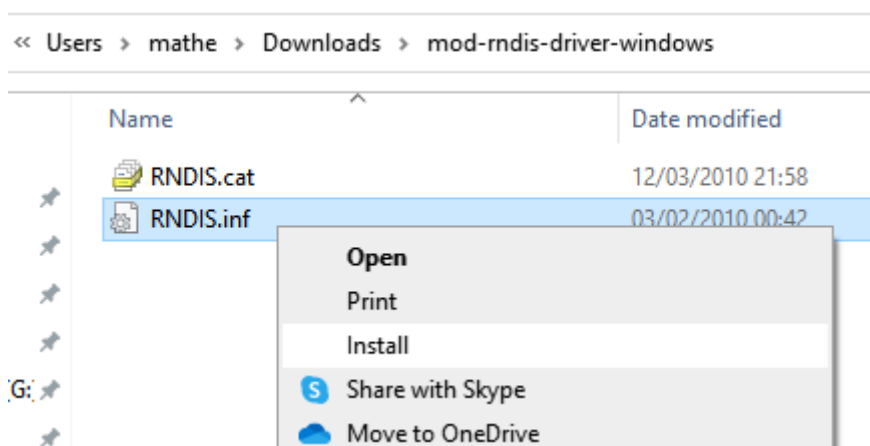
- You should see a message saying that the driver has been installed.

The operation completed successfully.

OK
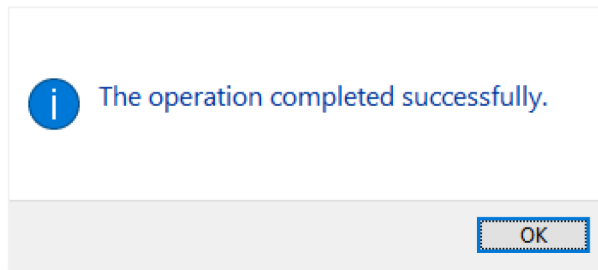
- **Please now retry connecting to the scanner.**

LAPTOP BUYING GUIDE

Laptop with lots of CPU cores can scan faster. If you are buying a new laptop and get one with 8 CPU cores, this could easily give you 2x faster scanning.

High performance GPUs are not advantageous for our software, but may help your intra-oral scanner.

Examples:

ASUS Vivobook Pro 15 M6500RE Laptop, AMD Ryzen 9 6900HX up to 4.9GHz, 16GB RAM, 1TB PCIe SSD, 15.6" Full HD IPS, NVIDIA GeForce RTX 3050 Ti, Windows 11 Home, Silver