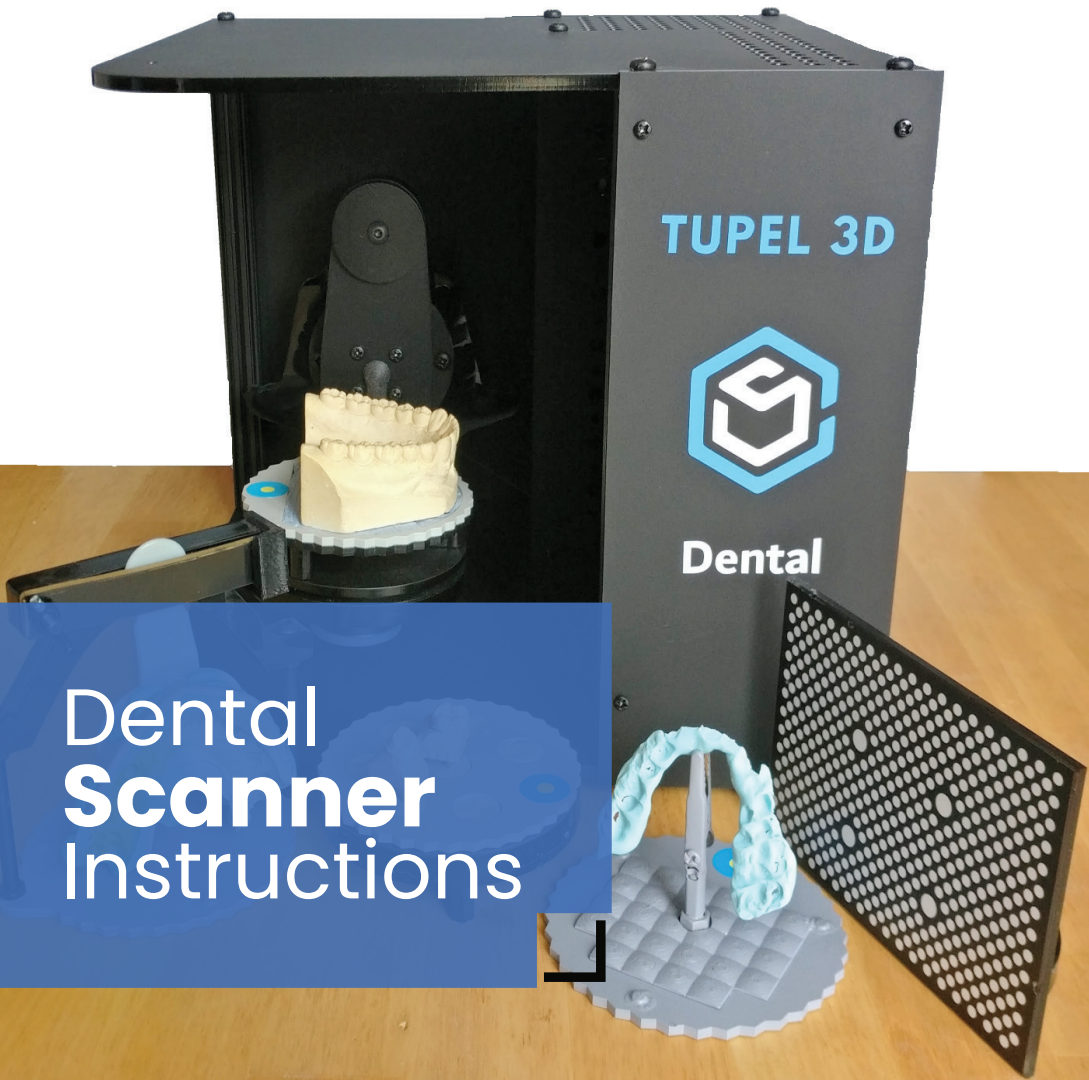




TUPEL 3D



Dental
Scanner
Instructions



TABLE OF CONTENTS

SYMBOL DEFINITIONS	1
WARNINGS AND PRECAUTIONS	2
QUICK START	3
HINTS AND TIPS	5
ACCESSORIES	7
SUPPORT	8



SYMBOL DEFINITIONS



Manufactured by



Date of Manufacture



Electronic instructions for use.



Universal device identifier

5V  10A Direct Current



Refer to instructions manual.



Catalog Number



Serial Number



Recycle

IP20

Protection against solid objects over 12mm in size.
No protection against water.



Fulfills the requirements of relevant European
product directives

WARNINGS AND PRECAUTIONS

Warnings:

- ✓ Remove the transit bar before powering the scanner
- ✓ Do not block the air vents (holes) to avoid the risk of overheating.
- ✓ Do not touch the motors as they can be hot.
- ✓ Do not stare or look straight into the projector beam.
- ✓ Do not disassemble the device.
- ✓ Do not allow the scanner to get damp or wet.

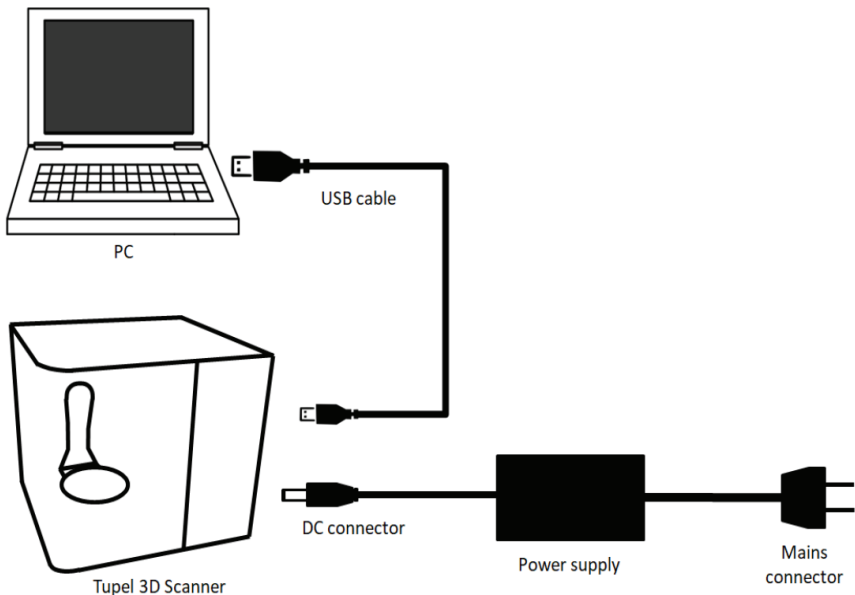
Precautions:

- ✓ Use the original power supply.
- ✓ Focus and calibrate the scanner prior to first use or after transit.
- ✓ Switch off the device when not in use for a long time.
- ✓ Discontinue use of the scanner if it becomes damaged.
- ✓ Be aware of the small magnets that hold the attachments to the turntable. Magnetic fields may interfere with data storage media, credit cards, and pacemakers.
- ✓ Disconnect all cables from the scanner during an electrical storm to prevent damage to the unit.
- ✓ Be aware that the scanner contains a small lithium ion battery.
- ✓ Your data is by default stored in your "Documents/Tupel3D" folder. You may wish to keep a backup. Doing so is straightforward since all of your data is kept in this one folder.
- ✓ The unit may not be sterile, handle the unit and accessories with medical gloves, should you wish to minimize the risk from infectious disease.

QUICK START

SET UP

A. Please set up the scanner hardware as shown in the diagram:



- The transit bar must be removed before powering the scanner.
- B. Download and install the Tupel 3D Dental software from tupel3d.co.uk
- C. Switch on the scanner and start the Tupel 3D Dental software.
 - The scanner will take about 1 minute to initialize, after which the projector will shine blue.
- D. Position your scanner so that no direct sunlight can shine onto the scan platform.
- E. Please retain the hard case and transit bar, in case the scanner requires servicing or repair.



FOCUS AND CALIBRATION

Please focus and calibrate your scanner because it has been in transit which can affect accuracy.

- On the PC, please select **Settings->Focus** and follow the instructions to complete focusing.
- Please select **Calibrate** and then follow the instructions to complete calibration.

If the computer *"Could not connect to the scanner"*, please use the trouble shooting guide that can be found at www.tupel3d.co.uk

SCANNING

You may now make a dental scan:

- (Optionally) Add patient information (such as the patient name, and notes). This will help to keep your scans organized.
- Scan in the impressions or models that you have for that patient.
 - Select Impression or Models.
 - Click the type of impression or model that you have.
 - Follow the on-screen instructions.
 - Repeat until you have scanned all that you wish to.
- (Optionally) Align or crop your data.
- Export your data to 3D CAD files ready for digital dentistry.

HINTS AND TIPS

GETTING THE BEST SCAN

Dark and/or shiny objects are the hardest to scan. Solutions to this (in order of significance) are:

- Use of a matte, object material, that is pale in colour, or white.
- Use of a “scan spray”. This is a temporary spray coating that takes the gloss off a surface, and lightens the colour. We recommend having a can of “AESUB Orange Scanning Spray” next to the scanner to be used as necessary. Unless the object is matte white, it is sure to improve the scanning accuracy. You can find your local distributor at aesub.com
- Set ‘Sensitivity’ to high, in the scanner settings.
- Click ‘Manual Exposure’ before the scan, and try to increase or reduce the exposure if necessary (however, auto-exposure should normally be effective).
- Try using the Add view button after the scan to collect extra data to fill in the dark spots.



For more tips,
please visit our website.

www.tupel3d.co.uk

Object orientations:

- When attaching the magnetic dental attachments, position the circular yellow and blue markers furthest from the projector.
- For impressions, and bite alignment scans, face the maxillary side towards the projector.

CARE AND MAINTENANCE

- Do not spray scan spray into the scanner. If the optical components become covered by the spray the scan quality will be reduced.
- The calibration plate is fragile and important; please take care not to scratch it. If necessary, wash with soap and water using a soft cloth. Do not use IPA or other alcohol based cleaning solutions.
- If the scanner optics have collected significant dust, you may use compressed air to remove the dust from the mirror, the cameras, and the camera covers.
- If the tacky blue material becomes dirty, and loses its grip, it can be replaced with the commonly available Bostik “Blu Tack”.
- It is safe to move the motors whilst they are held stationary, (for example to straighten the calibration plate and level the table before calibration begins), however moving the position of the motors during a scan can cause the scan to fail.
- The magnetic holders are most easily and safely removed by sliding them sideways.

UPDATES

Please check the Tupel3D website for software and firmware updates:

- Your Tupel 3D PC software is updated via download links available on our website.
- Your Tupel 3D scanner firmware may be updated by putting “firmware update codes” into the Tupel 3D PC software.

ACCESSORIES



Calibration plate,
CP-T3D-V3



Cast holder,
CH-T3D-V3



Special USB cable,
USB-T3D-V4



Extender plate,
EP-T3D-V3



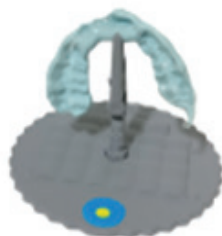
Triple tray holder,
TTH-T3D-V3



Power supply unit,
PSU-T3D-V4



Die holder,
DH-T3D-V3



Bite holder,
BH-T3D-V3

SUPPORT

Further information, instructional videos, and a troubleshooting guide are available on our website.

If you have any concerns, comments or feedback, please contact us, and we will do our best to help.



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