1 Introduction

The GXDP-700 3D upgrade kit provides the 3D CBCT modality to a system that originally is shipped with Pan or Pan/Ceph only.

Note: This kit provides the 6x4 field of view only. To provide the 6x8 FOV, a separate upgrade kit (license key) is needed.
2 Removing the covers

1. Remove the covers of the rotating unit by removing the screws that are indicated.

Sensor end screws (1) 6 pcs

Upper cover screws (2) 8 pcs
2. Detach the covers carefully and place them so that they don’t get scratched.

3. Remove the sensor covers by removing the screws. If you haven’t already, remove the sensor from sensor holder.

Loosen the four screws on the sensor side and remove the backside cover.
Remove the four screws holding the other half of the sensor cover and detach it.

Remove the EMC guard plate from the indicated screws.
3 Removing the CPU card

1. Remove all of the cables connecting to the CPU card and to the cooling system
2. Remove the CPU card with its stand by removing the indicated screws

Remove the raising pin for it is used again with the 3D assembly

Remove the CPU with its mounting plate and cut the cable tie that holds the cables together underneath the CPU
4 Removing the panoramic assembly

1. Remove the sensor holder assembly by removing the four screws and detach the cables connecting to it

2. Detach all of the cables from the circuit board
3. Once the cables are detached, pull them gently up, one by one, through the inlet. It’s recommended to pull the thin cables first to make room for the larger ones.

4. Detach the micro switch from beneath the rotating unit.

5. Detach the cable from the N-movement circuit board and remove the screws on the L-shaped piece at the end of the N-motor.

NOTE! The screws are very tight due to thread locker.
6. Remove the eight screws that hold the Panoramic tail.

7. Remove the panoramic tail carefully. The panoramic end is tightly attached to the rotating unit and tools may be needed when separating them.
5 Installing the 3D tail

1. Lift the 3D tail carefully to its place on the rotating unit

**NOTE!** When pushing the 3D tail to the holder, make sure that the corner of the L-shaped piece doesn’t hit the cast. Also make sure that the opto card doesn’t hit anything when installing the 3D tail.
2. Attach the 3D tail to its place with screws. Tighten the screw, shown below, from both sides to slide the 3D tail to the base. After that, attach the rest of the installation screws.

3. Put some thread locker to the screws and attach the L-shaped piece to its place
4. Slide the following cables/ connectors through the inlet

- **204867:**
  - JG404
  - JG402
  - JG303 (this connector connects to JC103 on the sensor holder)

- **204821** (3D panel data cable)

- **204800:**
  - JG405
  - (J3206 goes to CPU so don’t slide it through the inlet)

- **204154:** JG401

Attach the grounding cable to the 3D tail and slide it through the inlet
5. Attach the connectors to the circuit board

NOTE! Attach also the separate panel power cable 205444/JG406

6. Slide the following cables/connector through the inlet

- **204802: JC102** (Connects to sensor holder)

- **204822: JC104** (Connects to sensor holder)
7. Attach the connectors to the sensor holder circuit board

**NOTE!** Attach the data cable grounding point as shown

8. Attach the connectors to the 3D panel

**NOTE!** Attach the grounding wires as shown
9. Attach the sensor holder assembly back on

10. Attach the TMJ laser cable 205007/JC003 to the TMJ laser

11. Install the CPU with its stand to the tail

Attach the CPU stand raising pin and lift the CPU to its place
Attach the screw shown below and the rest of the CPU stand screws which are the same as in the PAN tail.

12. Attach the two data cables to the CPU

- 204822, the data cable from the sensor holder, goes to the left connector on CPU

- 204821, the data cable from the 3D panel, goes to the right connector on CPU

NOTE! Attach the grounding points as shown.
13. Attach the rest of the cables/connectors to the CPU board:

- 204788 J3203
- 204790 J3204
- 204800 J3206
- 204794 J3202
- 204791 J3214
- 204793 J3201
- 204798 J3213
- 204969 J3212
- 204798 (Ethernet) J3211
- 204797 (Ethernet) J3210

14. Attach the N-movement cable (204865/JG101) to the opto card
15. Attach the sensor rotation cable (204866/JG101/2) to the opto card

16. Slide the micro switch through the hole at the bottom of the tail and attach it with two screws to its place
17. Check that every cable is properly connected and that there are no loose cables

18. Gather the cables to a bunch and make sure that they don't hang close to the moving parts of the rotating unit.
Use cable tie to leash them together under the CPU card

6 Updating the software

The development of the software is continuous and especially for a hardware upgrade, it's recommended to update also the unit's software to latest revisions.

Update the units firmware according to the update instructions that are provided in a separate document in the FW release package. The present version in the device can be checked by pressing “Settings”, then “Show system data” on the device GUI. At time of writing, the latest FW is 1.05.

Also the viewing software might need to be updated. For 3D units, only VixWin is supported as 2D viewing SW. VixWin is included in the shipment.

The 3D viewing SW, Invivo is also included in the shipment.

Then update GxPicture in the workstation. GxPicture is provided on a CD in the shipment. At time of writing the latest release of GxPicture is 3.3. GxPicture might require that also the graphics processing unit’s (graphics board) driver is updated. The drivers for the shipped version of GxPicture are included on the SW Utilities DVD in the shipment.
At times, the package might also include a “Gendex Driver Update” disk that is a patch to the shipped GxPicture. If the shipped GxPicture is installed and there is a “Gendex Driver Update” disk, please install it according to the instructions provided in the readme file on the disk. Again, if a later version of GxPicture (e.g. by download) is installed, the update disk is not needed.

VixWin, GxPicture, Invivo and the GPU drivers are installed acc. to the manuals or instructions for each.

If the upgrade kit has been warehoused for long time, there might be newer versions of all software available. Please check with Gendex Technical Support for latest software releases and compatibility.
7 Finishing the installation

1. Switch the power on to the unit

2. Perform the needed calibrations for the 3D tail. The detailed information on calibration can be found on the device installation manual.

3. When all the calibrations are performed successfully, attach the EMC plate back on

4. Attach all the covers back on