NOTE
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The original version of this manual has been written in English language.

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MANUFACTURER’S NOTICE ABOUT MEDICAL DEVICES

The medical device described in this manual, composed by Scan Unit (gantry), patient support (patient table) and display and computation unit (Main Workstation) as delivered and configured by the manufacturing and servicing personnel, is a medical radiological device subject to the safety requirement stated by both international standards and local regulation.

Any change, modification, update on either hardware\(^1\), or software\(^2\), on the device and operating settings as released form factory and as installed (and in any case different from what has been specified on the device's attached documentation), can cause the partial or total device impossibility to operate as expected. Moreover its safety features can be changed with increased hazard for the patient, operator and surrounding environment.

So, in case that the final user need to modify or change any of the above specified items, he/she has to be allowed in written by QR s.r.l.

Any act outside of what has been stipulated on this notice will cancel the warranty. Moreover the person and/or organization will be liable for any damage and/or incident and/or deterioration in the state of health of a patient, user or other person and/or the surrounding environment.

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\(^1\) Adding a memory expansion, a new board on the connection bus, a new printer, the replacement of the graphic adapter is a significant change.

\(^2\) Including the Operating System an applications already installed when the device has been delivered and/or installed. Operating system automatic updates, changes on the network connection parameters, modification and/or addition and/or removal of hardware interface software (device driver) and/or system services (example: file sharing) and/or applications, constitute a significant change.
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1 Target and Application Field

This document is written to provide information and instructions about the upgrade of Newtom VGi device by adding of the X-Ray emission remote button feature.

For more details about NewTom VGi, please refer to the “Service Manual” document.

This manual is intended for trained personnel recognized by the manufacturer of the NewTom VG device. Prior to operating or servicing this device, this manual must be read and understood.

Keep this and other associated manuals for future reference and for new operators or qualified service personnel.
2 Used materials

The upgrade of NewTom VGi device involves the use of the following components:

**X-RAY EMISSION REMOTE BUTTON KIT (COD. 96600856)**

composed by

- 1 electronic board (NIM052) – cod. 97661362
- 1 X Ray emission remote button – cod. 96600944
- 1 wiring for x-ray emission remote button – cod. 97521333

- Small hardware:
  2 M3x11 M/F spacers – cod. 97182500
  2 M3x6 socket head screws – cod. 51232231
  1 M3 nut – cod. 52900042
  10 plastic belts – cod. 97550019
3 Equipment mounting

3.1 Control Box upgrading

1. Remove C.BOX FRONT PANEL COVER (99934078) cover from the Control Box.

2. Disconnect NIM034 CN8 connector and unscrew all M3x6 socket head screws from the sides of the board.

3. Mount a M3x11 M/F spacer on the second hole from the top of the NIM034 (right side) and fix it with M3 nut on the rear side of the board.
4. Fix again the NIM034 with the M3x6 socket head screws previously removed. Leave without the screw the first upper right hole.

5. Mount a M3x11 M/F spacer on the first upper right hole of the NIM034
6. Mount the NIM052 board by plug in CN1 to NIM034 CN8 and fix the board with 2 M3x6 socket head screws on the spacers previously mounted.

7. Connect NIM034 CN8 connector to NIM052 CN2
IMPORTANT:
Remove JP1 jumper from NIM052 in order to disable the LED illumination and the acoustic signal when is active the x-ray emission.

8. From the Control Box input plate, insert the wiring for X Ray emission remote button (remove 1 of plastic cap that covering the free holes if necessary) and fix the plastic belts the cable as shown in the following figures.
9. Connect RJ11 connector to NIM052 CN3 and fix the last part of the cable with the plastic belts.

10. Mount the C.BOX FRONT PANEL COVER (99934078) cover to the Control Box.

11. Connect the remote button RJ11 connector into the interconnection box present on the 97521333 wiring cable and locate the X-ray emission remote button on the operator’s station.

IMPORTANT:
Use a 6pin telephone cable (with RJ11 connectors) in case you need to replace the cable connected to the interconnection box.
4 Software update

After installing the new hardware components, the software version needs to be updated. Please refer to the following paragraphs for a correct software update.

1. Using the provided Setup CD (or upgrade files) install the new software version (4.6.5 or later) paying attention to select the “Main Workstation” option when prompted by the software.

2. After the reboot of PC (if necessary), Open NNT software and enable the “Service Level” by pressing “CTRL + SHIFT + ALT + END”.

3. Open Scanner Test window (by menu Tools → Scanner Test).

4. From menu Tools select “Use external XRay confirmation button (dead man button)” in order to enable the use of the xray emission remote button.

For more details about the use of NNT with the xray emission remote button, please refer to the “User Manual” and “NNT - Acquisition operations with NewTom 3G-VG-VGi-5G” document.

NOTE:
After the software setup, make sure to exit from the service level. If the service level is active, the request of the “button press” for x-ray emission is disable.

NOTE:
In case of performing of calibration procedures without patient (source conditioning, daily check, mA curve setup, blank acquisition, forming process...), the request of the “button press” for x-ray emission is disable. In this case a dialog window will appear in order to notify the automated x-ray emission.
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