Preva Plus Upgrade Instructions

FORM #00-02-0594
ECN: P1713
Rev. C

Purpose

These instructions facilitate the upgrade of a Preva DC Intraoral X-ray (manufactured after July 1, 2008) to a Preva Plus with integrated Vision DX Sensor.

Items required for this upgrade may include one or more of the following Part Numbers:

600-401 – Upgrade Kit with #1 Sensor
600-402 – Upgrade Kit with #2 Sensor
600-403 – Upgrade Kit with #1 and #2 Sensor
600-404 – Upgrade Kit without Sensor

Options

600-100, USB Ethernet Extender
30-A2153, USB A/B Switch

Tools Required

Philips Screwdriver, #1
Philips Screwdriver, #2
3mm Hex Wrench
Diagonal Cutter

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Procedure

1. Remove the end caps from the tube head end of the articulating arm by pulling them apart.

Figure 1

2. Locate the cable tie that holds the end of the USB cable to the arm. Refer to Figure 2.

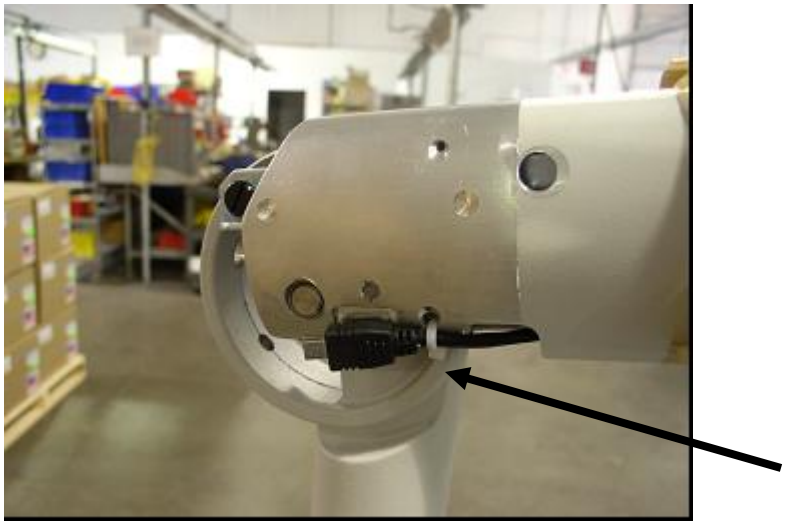

Figure 2

3. Carefully cut the cable tie with a diagonal cutter. Take extreme care not to cut the USB cable jacket.
4. Plug the USB cable into J1 of the Sensor Interface PCB, Arm Mount Kit. Refer to Figure 3.

Figure 3

5. Replace the male end cap with Sensor Interface PCB,Arm Mount Kit. Press it and the female end cap together over the end of the Articulating Arm.

6. Secure the Sensor Interface PCB, Arm Mount Kit to the Articulating Arm using the M3 x 16mm socket head cap screw. Use a 3mm hex wrench to tighten. Refer to Figure 4.

Figure 4

7. Attach the sensor holder to the articulating arm as shown in Figure 5.

Figure 5

8. Plug the sensor connector into the Sensor Interface at the bottom of the Arm mount. Figure 6.

Figure 6

9. Place the sensor into the sensor holder. Refer to Figure 7.

Figure 7

10. Remove the cover from the Preva Plus Control Unit.
11. Attach the Unpowered USB Hub to the bracket adjacent to the Logic pcb. Use the two M3x5mm screws provided. Refer to Figure 8.

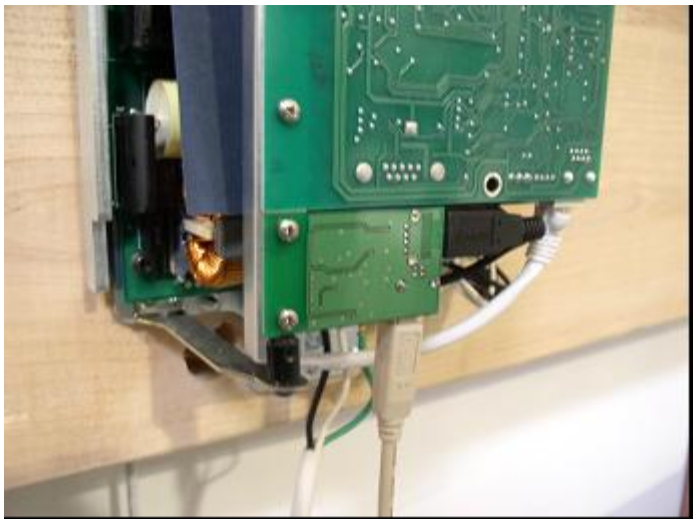

Figure 8

12. Locate the free end of the USB cable from the horizontal arm. If it is secured with a cable tie, carefully cut the cable tie.
13. Plug the USB cable from the horizontal arm into J1 of the Unpowered USB Hub. Refer to Figure 8.
14. Connect the 5m USB cable provided to J2 of the Unpowered USB Hub. Refer to Figure 8.
15. Cut and clear a notch in the control cover using one of the provided access areas. See fig. 8a.

Figure 8a.

16. Dress the 5m USB cable through the notch in the bottom of the Control Unit cover and replace the cover.
17. Plug the other end of the 5m USB cable into a USB port on the PC that will control the VisionDX system.

Options

1. **OPTION 1**: USB Powered Hub. It is recommended to use a powered hub at the computer to prevent overloading and any electrical power issues at the computer. Plug the 4-Port USB Hub Power Supply into a wall outlet. Connect the power supply to the hub and then connect the PC to the 4-Port USB Hub using the 1m USB Cable. Plug the free end of the 5m USB Cable into the 4-Port USB Hub.

2. **OPTION 2**: USB-Ethernet Extender, part number 600-100. This extender provides for a longer cable run than permitted by USB cables. A USB – ethernet adapter is used on both the computer end and the sensor end with an ethernet cable in between that can run up to 25 ft. in length.

    a. In the cases where the PC cannot reach the Preva Plus Control Unit with the 5m USB cable, a USB-Ethernet Extender may be used.

    b. Attach the USB-Ethernet Extender to the bracket adjacent to the Logic pcb. Use the two M3x5mm screws provided. Refer to Figure 9.

        Note: If installed remove and replace the Unpowered USB Hub with the USB-Ethernet Extender as described in the above step.

    c. Plug the USB cable from the horizontal arm into the USB-Ethernet Extender, Device at J1. Refer to Figure 9.

Figure 9

d. Plug the 0.5m USB Cable into a USB port on the PC that will control the VisionDx system.

e. Plug the free end of the 0.5m USB Cable into the USB Ethernet Extender, Host with Enclosure. Refer to Figure 10.

Figure 10

f. Use the 50 foot CAT-V Cable to link to the USB-Ethernet Extender Device.

g. Dress the CAT-V cable through the notch in the bottom of the Control Unit cover and replace the cover.

3. **OPTION 3: Dual-Host Switch, part number 30-08135.**

In the case where the Preva Plus and VisionDX Integrated System is used in a pass-though cabinet and a PCs is desired for each room, a Dual-Host Switch may be used.

a. Remove the USB Hub from the bracket inside the Control Unit.

b. Replace the Control Insert in the Control Unit Cover with the Dual-Host Switch Assembly.

c. Plug the USB cable from the Preva Plus Horizontal Arm into J2 on the Dual-Host Switch Assembly.

d. Plug the two USB cables for each of the two PCs into J1 and J3 on the Dual-Host Switch Assembly. Refer to Figure 10.

Figure 11

e. Dress the two USB cables through the notch in the bottom of the Control Unit cover and replace the cover. Refer to Figure 10.

Figure 12

Plug one USB cable into a USB Port on each of the PCs in use.

Option 4: Mobile Installation

Figure 13.

a. With the operator panel and the cradle removed, route the USB cable and the control panel computer cable through the hole in the cradle bas as shown in figure 13.

b. Route the control panel computer cable through the cradle and the USB cable in the slot at the bottom of the cradle as shown in figure 14.

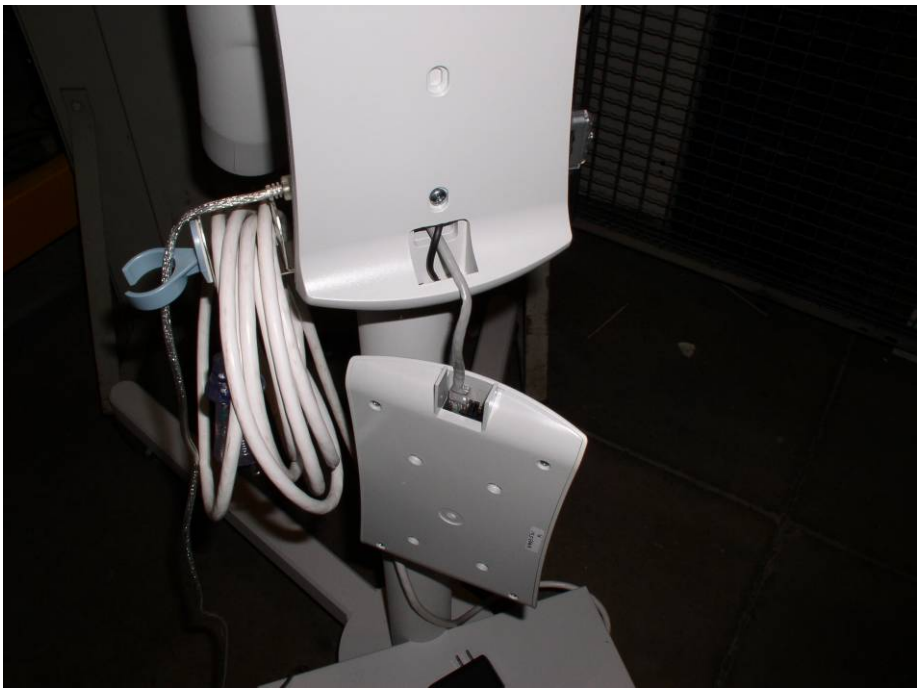

Figure 14.

c. Attach the control panel computer cable to the control panel as shown in figure 14.
d. Place the control panel on to the cradle as shown in figure 15.

Figure 15.

e. Attach the USB cable to the USB hub included in the system as shown in figure 16. Use the hub included with the system but do not connect the power cord to power as it is not necessary. This hub acts as an unpowered USB hub in this installation.

Figure 16.

f. Attach the USB cable that came with the system into the hub and the other end into a USB port on the computer which contains the imaging software necessary to operate the sensor and acquire radiographs.

g. Installation is now complete and the computer may be used to invoke the imaging software.