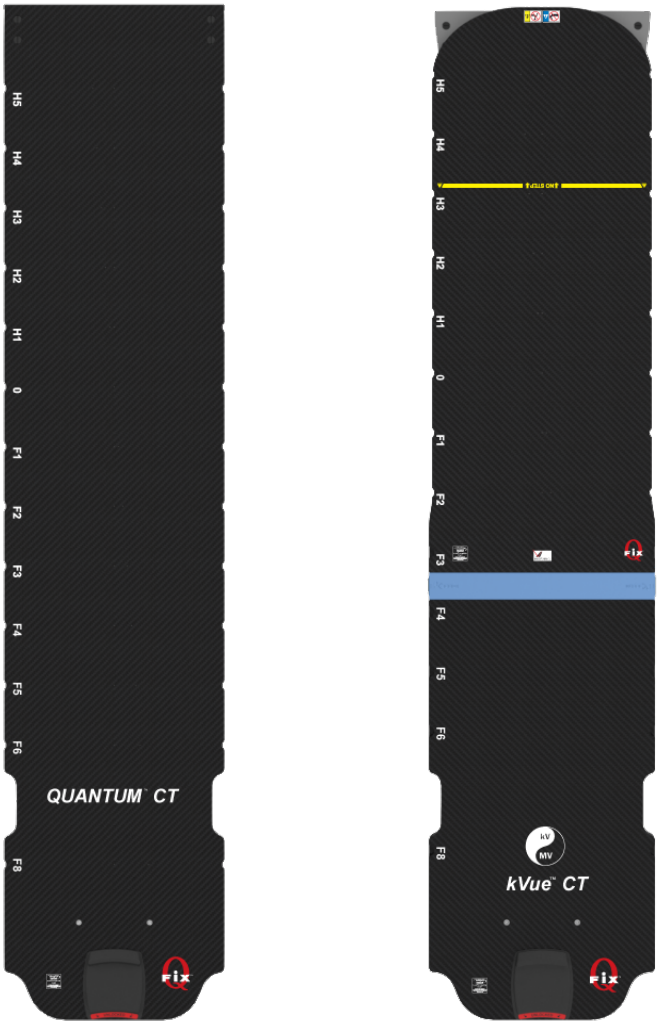
positioning
patients for life.®

INSTALLATION MANUAL

RT-4550PBR, RT-4550KVPBR, & RT-4550KVPH01
QUANTUM™ & kVue™ CT Overlays for Philips®



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CE

EC REP	Advena Limited Tower Business Centre, 2nd Flr Tower Street, Swatar, BKR 4013 Malta

Made in the USA by
Qfix
440 Church Rd, Avondale, Pennsylvania, USA
+1 484-720-6053 www.Qfix.com

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GENERAL PRECAUTIONS

WARNING STATEMENTS

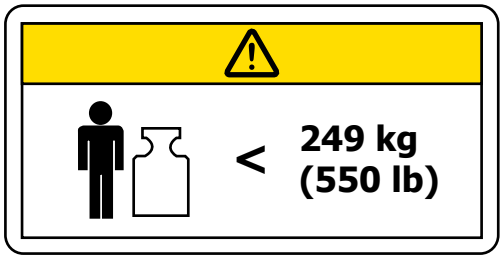
! WARNING ! NO MODIFICATION OF THIS EQUIPMENT IS ALLOWED. IF ANY PART OF THIS DEVICE EXPERIENCES A CATASTROPHIC LOAD, APPEARS DAMAGED OR FUNCTIONS IMPROPERLY, DISCONTINUE USE IMMEDIATELY AND CONTACT QFIX AT +1 484-720-6053 OR TECHSUPPORT@QFIX.COM.

ADDITIONAL WARNINGS

- DO NOT exceed pedestal manufacturer's load rating.
- Maximum patient weight of 550 pounds (249 kg) or pedestal load rating, whichever is less.
- Pinch points may exist and are indicated on CT Overlay.
- Attention is necessary when moving the cradle and CT Insert into the Gantry Bore to ensure that pinch point risk to hands and fingers are avoided.
- Use of this product in a manner not specified in the User Manual or Installation Manual may be unsafe and is not recommended.
- Use of unapproved devices or attachments may be unsafe and is not recommended.

WARNING LABELS & DEYSCRIPTIONS

Refer to Qfix.com for a listing of symbols and their definitions.

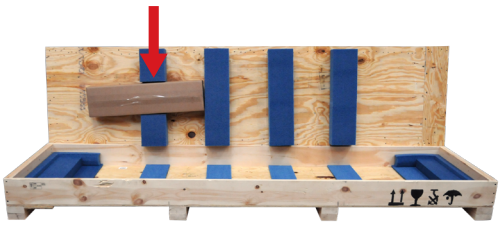


LOAD RATING

DO NOT exceed 249 kg (550 lb) uniformly distributed load.

PINCH POINTS

Pinch points may exist and are indicated by one of these symbols.



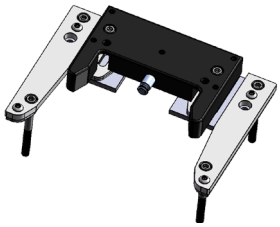
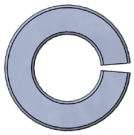
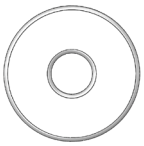
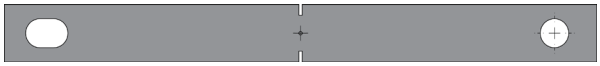
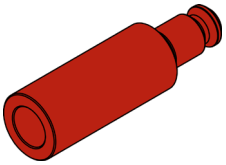
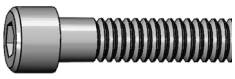
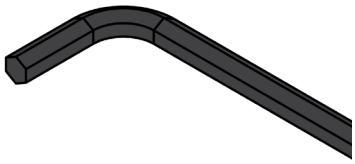
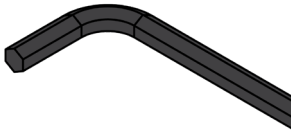
Hardware kit for CT is located in a cardboard box in the lid of the crate, indicated by the photo on the left.

Philips Brilliance

INSTALLATION MANUAL

INSTALLATION

PARTS PROVIDED

 (1) Philips Base Pin Assembly	 (2) ¼" Lock Washer
 (1) Qfix Locating Bar	 (2) ¼" Fender Washer
 (1) Centering Fixture	 (2) Bushing, IV Pole Hole
 (1) Alignment Pin	 (2) ¼-20 x 1.25" SHCS SS
 (1) 3⁄16" Allen wrench	 (2) ¼-20 x 1.5" SHCS SS
 (1) ⅛" Allen wrench	**TOOLS REQUIRED (not provided):** Coin, US Quarter, or Equal

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INSTALLATION

INSTALLATION OF FOOT END MOUNTING ASSEMBLY

1. Mount the Spacers in the IV Pole Holes of the CT cradle (Fig. 1). The Spacers have a slot which needs to be aligned across the CT cradle. This allows for variances on the IV Pole Hole locations.

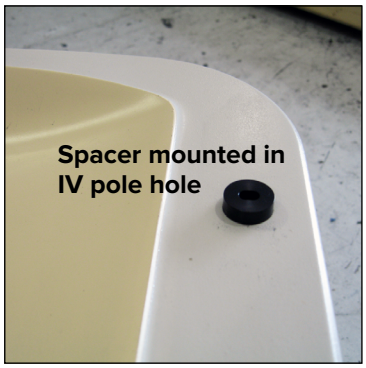

Fig. 1

2. Socket Head Screws, Lock Washers, and Fender Washers are installed from below the CT cradle in existing IV Pole Holes (Fig. 2).

Fig. 2

INSTALLATION

INSTALLATION OF FOOT END MOUNTING ASSEMBLY

3. The Socket Head Screws pass through the Slotted Spacers on the top of the CT cradle and thread into the Foot End Mounting Assembly as shown (Fig. 3 & 4).

Fig. 3

4. Center the Foot End Mounting Assembly on the CT cradle and tighten the fasteners.

Fig. 4

5. Installed Foot End Mounting Assembly (Fig. 5).

Fig. 5

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INSTALLATION

ADJUST FOOT END LATCH ASSEMBLY ADJUSTMENT

The objective of this Section, Steps 1–9, is to verify that the Red Alignment Pin, inserted on the CT cradle, can slide freely onto the Foot Latch Mounting Block without binding (Fig. 6).

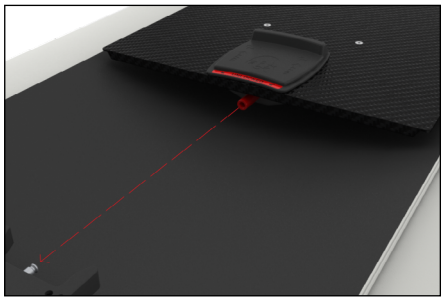

Fig. 6

1. Push the male end of the red Alignment Pin into the socket in the block on the underside of the CT Overlay (Fig. 7) until the handle on the topside reads “LOCKED” (Fig. 8).

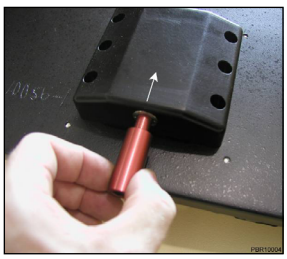

Fig. 7

Fig. 8

2. Place the CT Overlay on the CT cradle overhanging the head end by 3–4 inches (Fig. 9). Align the CT Overlay on the centerline of the CT cradle (Fig. 10).

Fig. 9

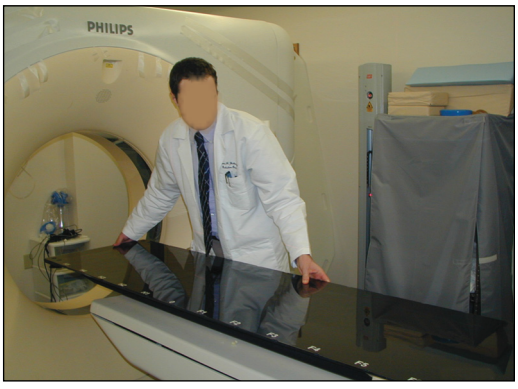

Fig. 10

INSTALLATION

ADJUST HEIGHT OF THE FOOT END MOUNTING BLOCK

3. Slide the CT Overlay toward the CT cradle foot end until the Red Alignment Pin is close to the metal pin on the Foot End Mounting Assembly (Fig. 11).
4. Adjust the height of the Mounting Block Pin by loosening the two vertical adjustment screws with the 3⁄16 in Allen wrench and engaging the Mounting Block Pin into the Alignment Pin (Fig. 12).
5. Re-tighten the screws while holding the Mounting Block parallel, from side to side, to the CT Overlay bottom.

! NOTE ! If more adjustment range is needed, remove the Mounting Block Screws shown in Figure 13 The Mounting Block can be lowered by removing the Spacer Plate. The Mounting Block can be raised by turning the four tilt adjustment screws equally with the 1⁄8 inch Allen wrench and installing the optional, longer 1-1⁄8 in. Mounting Block Screws provided. Gently re-tighten the Mounting Block Screws.

6. Verify that the CT Overlay can be pushed on and off the Mounting Block Pin without binding by moving the CT Overlay back and forth. Make sure the CT Overlay is staying centered on the cradle while doing this. Verify that the Mounting Block Pin is parallel to the Alignment Pin and at the correct height.
    a. If the Alignment Pin is binding, you may adjust the tilt of the Mounting Block Pin by first loosening the Mounting Block Screws (Fig. 13).
    b. Then equally adjust the two leveling screws up or down with the 1⁄8" Allen wrench to change the tilt until level with the Alignment Pin and the CT cradle. Gently re-tighten the (2) Mounting Block Screws (DO NOT OVERTIGHTEN) (Go back to Step 3) (Fig. 14).

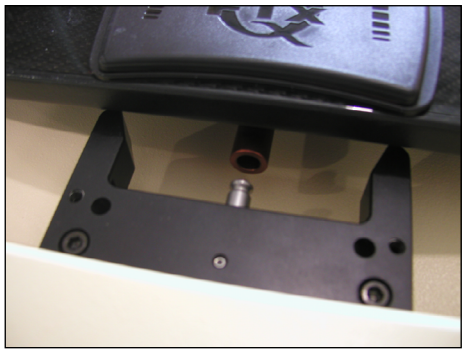

Fig. 11

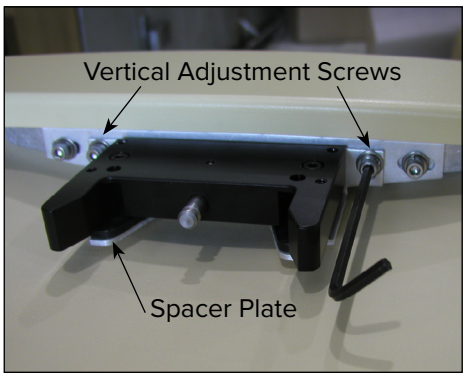

Fig. 12

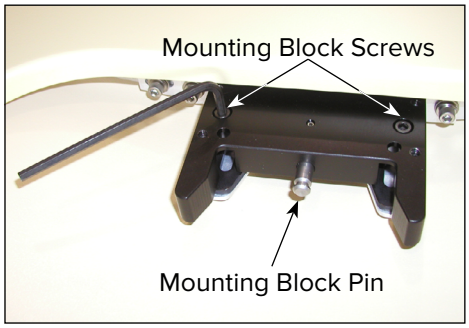

Fig. 13

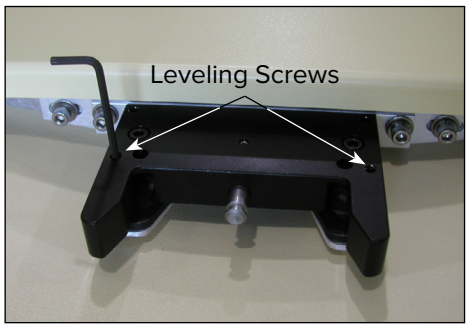

Fig. 14

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INSTALLATION

ADJUST HEIGHT OF THE FOOT END MOUNTING BLOCK

7. Remove the red Alignment Pin from the CT Overlay by pulling back on the release handle in the direction indicated by the unlock symbol (Fig. 15).

Fig. 15

8. Slide the CT Overlay all the way towards the foot end until the handle confirms it is locked on. When only green shows and no red, it is “LOCKED” (Fig. 16).

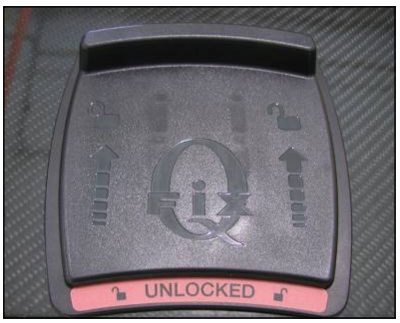

Fig. 16

9. To remove, pull/push on the handle to unlock and continue to push the CT Overlay 3–4 inches away from the latch.

INSTALLATION

ADJUST HEAD END ALIGNMENT ECCENTRICS

The Head End Alignment Eccentrics provide a center and gripping action of the CT Overlay Head End to the cradle. As you rotate the Eccentrics equally on both sides of the CT Overlay, you can adjust the fit to the CT cradle. A fit that holds the CT Overlay firmly centered and which also slides on/off the CT cradle is the goal of the adjustment.

1. Looking at the Eccentrics from below (Fig. 17) rotate them until the CT cradle holds the CT Overlay firmly centered and also slides on/off the CT cradle (Fig. 18).

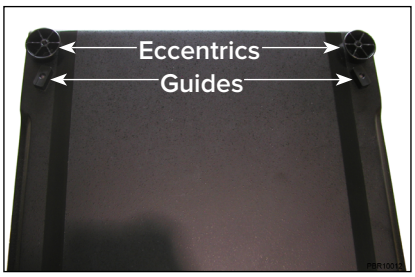

Fig. 17

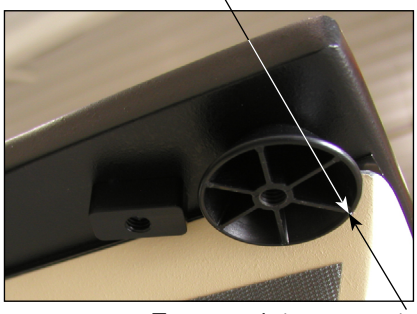

Fig. 18

2. Tighten the Plastic Flat Head Screw firmly using a coin to secure the Eccentrics (Fig. 19).


Fig. 19

3. Test the adjustments for fit and sliding action and also test the latching action.

INSTALLATION

CENTERING CT OVERLAY ON THE CT CRADLE

Head End of Cradle

1. Install the Locating Bar on the CT Overlay and then set the Centering Fixture Bar on the Locating Bar at the head end of the CT Overlay (Fig. 20).

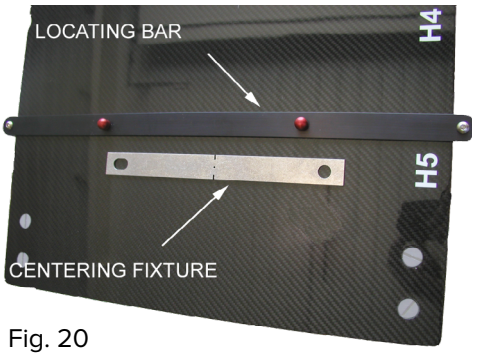

Fig. 20

2. Use the CT Laser Alignment system to determine where the alignment beam hits the Centering Fixture guide slits (Fig. 21). Adjust the gripping eccentrics to center the CT Overlay on the beam (see Section, “Adjust Head End Alignment Eccentrics”).

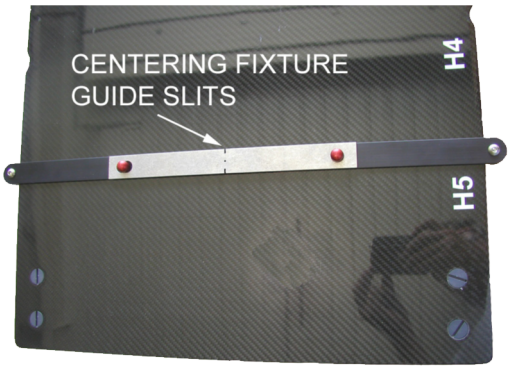

Fig. 21

Foot End of Cradle

1. Use the CT laser alignment system to define the center of the Foot End of the CT Overlay (Fig. 22).

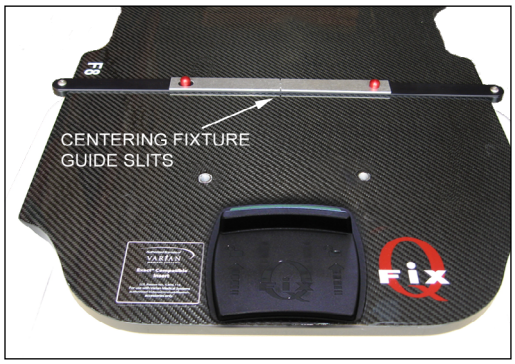

Fig. 22

INSTALLATION

CENTERING CT OVERLAY ON THE CT CRADLE

2. Adjust the CT Foot End Mounting Assembly by loosening the two screws from the underside (installed in part A-1), centering it to the laser, and re-tightening to screws (Fig. 23).

Fig. 23 Loosen screw both sides to adjust left to right.

3. If more adjustment range is needed, loosen the two Mounting Bracket adjustment screws, move the bracket, and re-tighten (Fig. 24). Make sure that the CT Overlay does not contact the faces of the Mounting Assembly Painted Shroud.

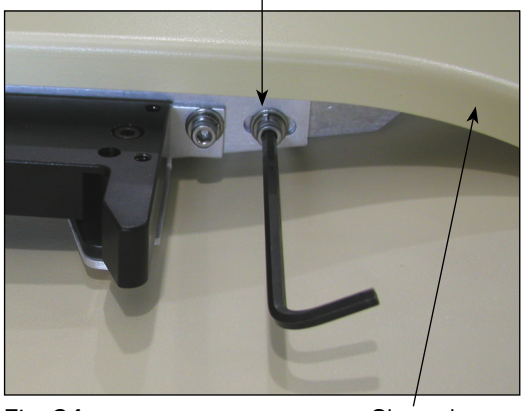

Fig. 24

INSTALLATION

INSTALLATION VERIFICATION

1. Verify the cradle can travel the full length of the “Z” axis without issue. Repeat for both mechanical and manual movement (Fig. 25).
2. Verify that they QA phantom holder can attach/detach to the CT without issue.
3. Verify the cradle can travel the full height of the ‘Y’axis without issue (Fig. 25).

! NOTE ! Qfix recommends running a test scan at iso-center following installation verification.

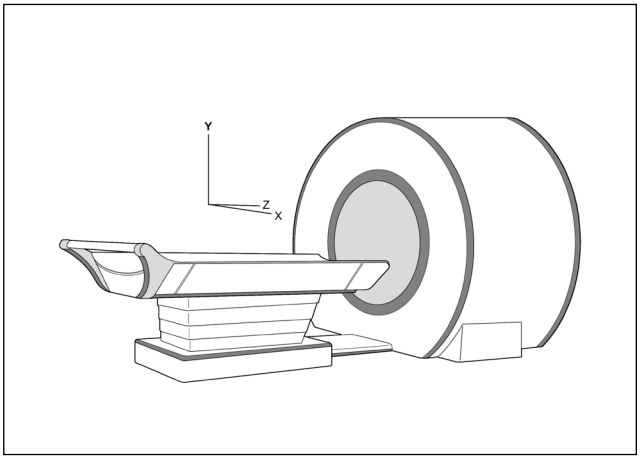

Fig. 25

Philips Spectral CT 7500 (Icon)

INSTALLATION MANUAL

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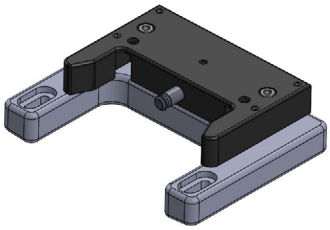
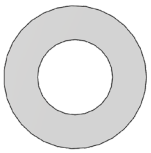
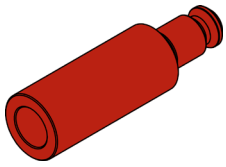
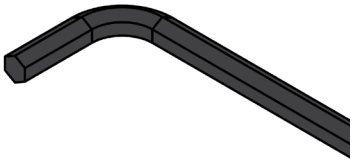
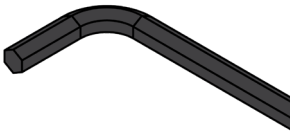
INSTALLATION

PARTS PROVIDED

 (1) Foot End Mounting Assembly	 (2) M6 X 1.35 mm, SHCS SS
 (1) Qfix Locating Bar	 (2) M6 Washer
 (1) Alignment Pin	 Shim Tape
 (1) 3⁄16" Allen wrench	 (1) 1⁄8" Allen wrench

INSTALLATION

INSTALL FOOT END MOUNTING ASSEMBLY COMPONENTS

1. Remove any patient straps that are attached on the cradle, that might cause the overlay to not be level on the cradle.
2. Place Foot End Mounting Assembly on the CT cradle so that it is all the way at the back of the cradle (Fig. 26). Align the slots on the Foot End Mounting Assembly with the screw holes on the cradle (Fig. 27).

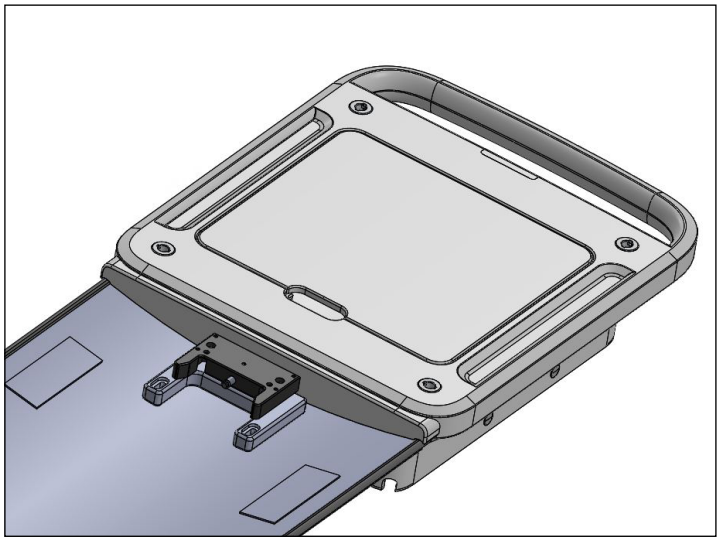


Fig. 26

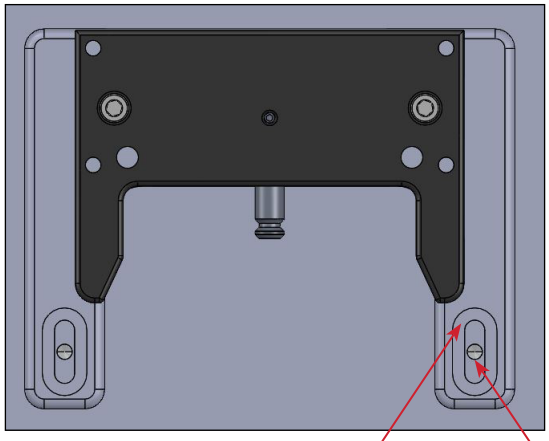


Fig. 27

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INSTALLATION

INSTALL FOOT END MOUNTING ASSEMBLY COMPONENTS

3. Use M6 washers and M6 x 1.35 mm screws to secure the Foot End Mounting Assembly onto the cradle (Fig. 28).

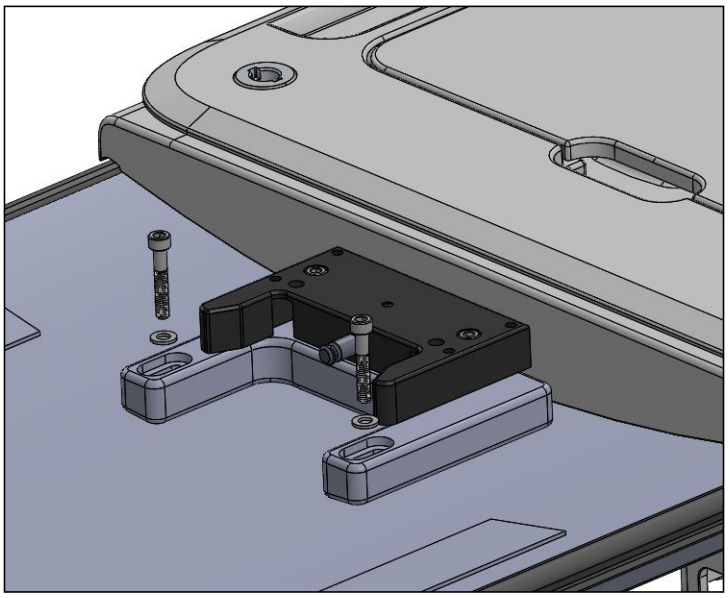

Fig. 28

INSTALLATION

ADJUST HEIGHT OF THE FOOT END MOUNTING BLOCK

The objective of this Section, Steps 1–7, is to verify that the Red Alignment Pin, inserted on the CT cradle, can slide freely onto the Foot Latch Mounting Block without binding (Fig. 29).

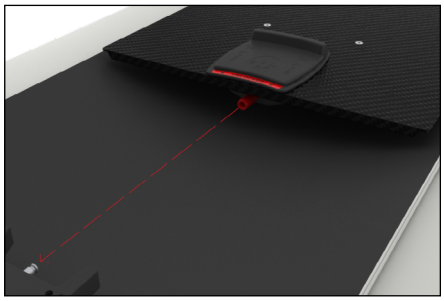

Fig. 29

1. Push the male end of the red Alignment Pin into the socket in the block on the underside of the CT Overlay (Fig. 30) until the handle on the topside reads “LOCKED” (Fig. 31).

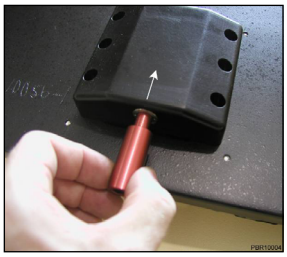

Fig. 30

Fig. 31

2. Place the CT Overlay on the CT cradle overhanging the head end by 3–4 inches (Fig. 32). Align the CT Overlay on the centerline of the CT cradle (Fig. 33).

Fig. 32

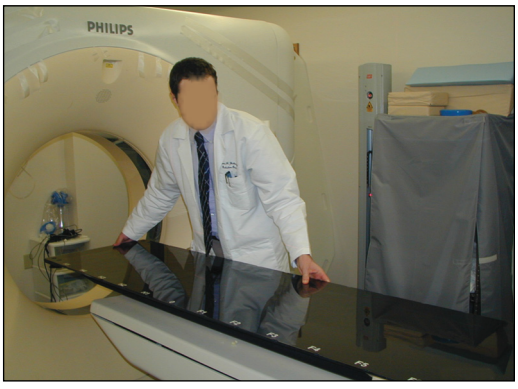

Fig. 33

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INSTALLATION

ADJUST HEIGHT OF THE FOOT END MOUNTING BLOCK

3. Slide the CT Overlay towards the CT cradle foot end until the red Alignment Pin is close to the metal Pin on the Foot End Mounting Assembly. At this point, adjustment will be needed to allow the CT Overlay to engage the Foot Latch properly.
    a. Begin by adjusting the height of the Foot Latch Mounting Block on the existing CT, by loosening the Locking Screws (2) ¼-20 (Fig. 34).
    b. Adjust the height of the Mounting Block using the (4) Elevation Set Screws (found on the mounting block) using the ⅛ in. Allen Wrench (Fig. 35).
    c. Adjust the Elevation Set Screws as needed then engage the Mounting Block Pin into the red Alignment Pin and re-tighten the Locking Screws while holding the Mounting Block parallel, from side to side, to the CT Overlay bottom.
    d. Lock the Foot Latch Mounting Block by tightening the (2) ¼-20 x 1 Locking Screws using 3⁄16 in. Allen wrench.
    e. Check that the Foot Latch Mounting Block is parallel to the Spacer Plate as the screws are tightened.
4. Verify that the CT Overlay can be pushed on and off the Mounting Block Pin without binding by engaging and releasing the CT Overlay. Make sure the CT Overlay stays centered on the cradle while doing this. Verify that the Mounting Block Pin is parallel to the Alignment Pin and at the correct height.
    - If the Alignment Pin is binding, you may adjust the tilt of the Mounting Block Pin by first loosening the Mounting Block Screws. Then equally adjust the two Elevation Set Screws up or down with the ⅛" Allen Key to change the tilt until level with the Alignment Pin and the CT cradle. Gently re-tighten the two Mounting Block Screws (DO NOT OVERTIGHTEN).
5. Remove the red Alignment Pin from the CT Overlay by pulling back on the release handle in the direction indicated by the unlock symbols.
6. Slide the CT Overlay all the way towards the foot end until the handle confirms it is locked on. When green “LOCKED” shows and no red, it is locked on (Fig. 36).
7. To remove, pull/push on the handle to unlock and continue to push the CT Overlay 3–4 in. away from the latch to verify it functions properly (Fig. 37).

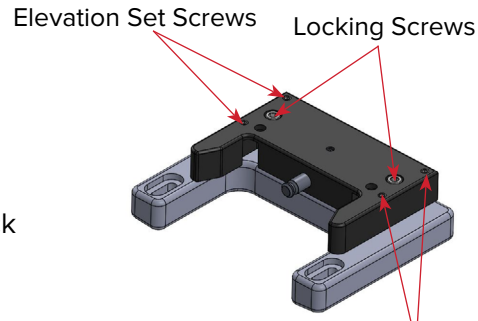

Fig. 34

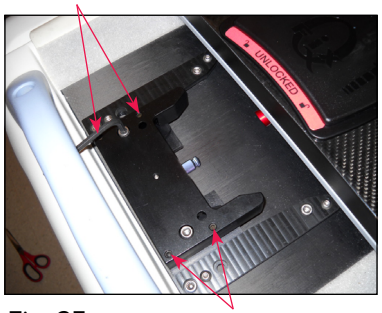

Fig. 35

Fig. 36

Fig. 37

INSTALLATION

CT OVERLAY HEAD END ALIGNMENT

1. Apply the Shim Tape to the left and right front edges of the cradle surface as needed, to compensate for the added height of the plastic cap (Fig. 38).

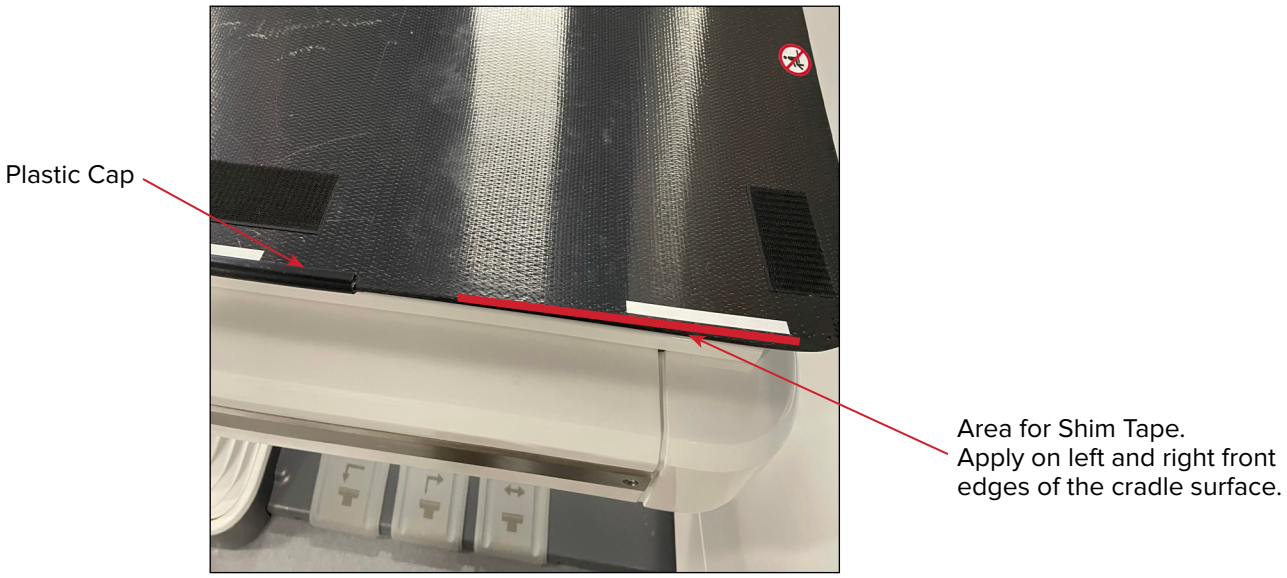

Fig. 38

2. Ensure that the foot end of the overlay is locked onto the Foot End Mounting Assembly.
3. Align the overlay on the cradle by tightening the M10 set screws on both the left and right cams as needed, using an M5 Allen wrench (Fig. 39 & 40).

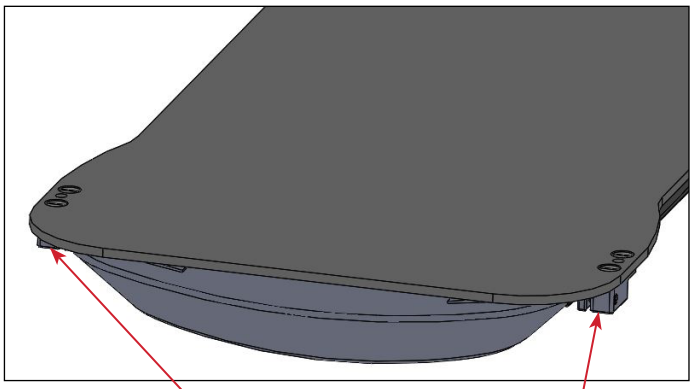

Fig. 39

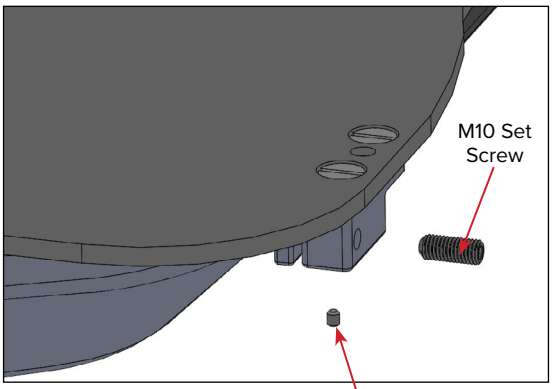

Fig. 40

4. When the proper alignment is achieved, lock the M10 set screws by tightening the M5 set screws using a 2.5 mm Allen Wrench.

INSTALLATION

CENTERING CT OVERLAY ON THE CT CRADLE

Head End of Cradle

1. Install an insert on the kVue CT Overlay, and then install the Locating Bar on the CT Overlay (Fig. 41).

Fig. 41

2. Use the CT Laser alignment system to define the center of the CT Overlay on the head of the Overlay. If the centering marks on the Locating Bar do not line up with the laser, repeat steps 3 and 4 of the “CT Overlay Head End Alignment” section to align the CT Overlay with the laser (Fig. 42).

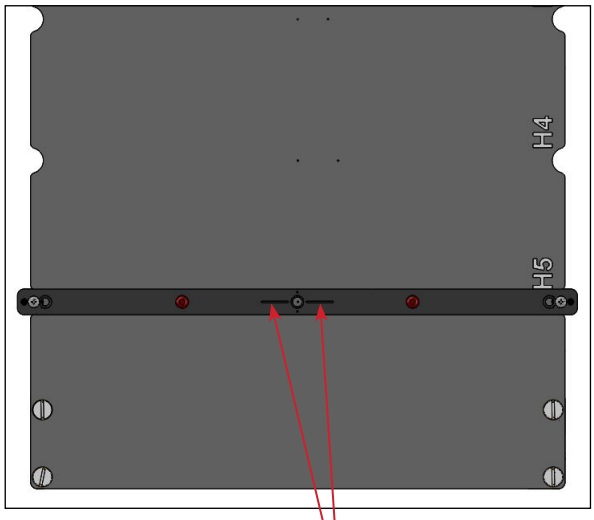

Fig. 42

INSTALLATION

INSTALLATION VERIFICATION

1. Verify the cradle can travel the full length of the “Z” axis without issue. Repeat for both mechanical and manual movement (Fig. 43).
2. Verify that they QA phantom holder can attach/detach to the CT without issue.
3. Verify the cradle can travel the full height of the ‘Y’axis without issue (Fig. 43).

! NOTE ! Qfix recommends running a test scan at iso-center following installation verification.

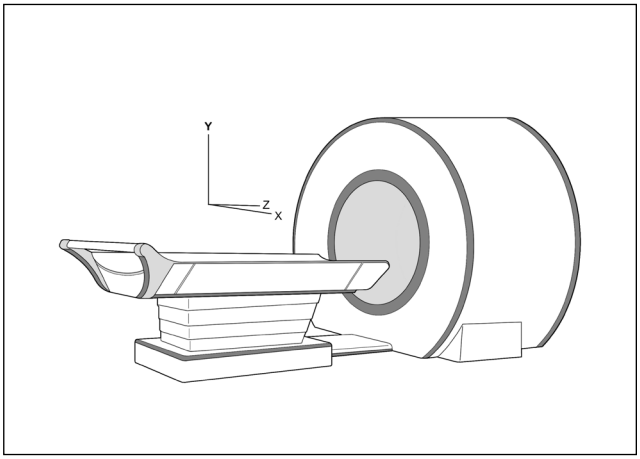

Fig. 43

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