



INSTALLATION MANUAL

RT-4550TAQ & RT-4550KVTAQ

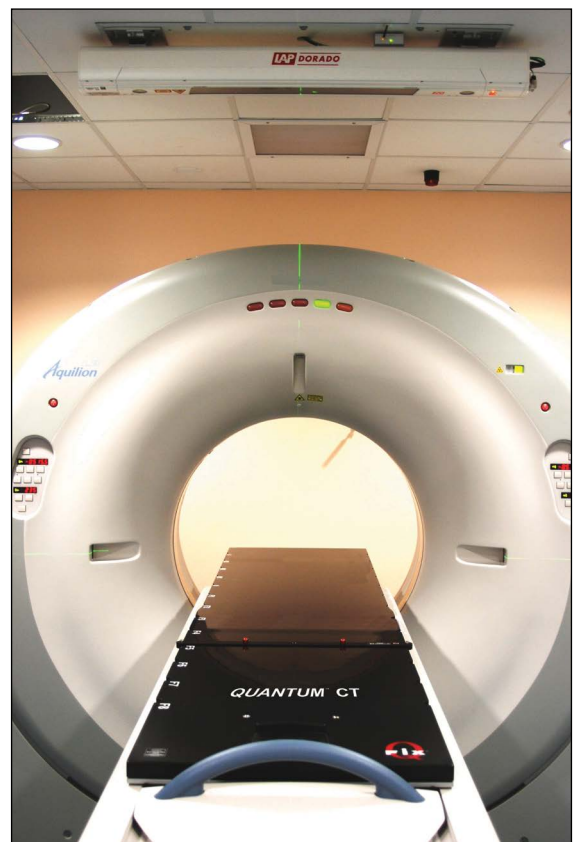
RT-4550TAQ2 & RT-4550KVTAQ2

QUANTUM™ & kVue™ CT Overlays

for Canon Aquilion™, Canon Cartesion™
and Canon Celesteion™




kVue™ CT Overlay on Canon Aquilion™



QUANTUM™ CT Overlay on Canon Aquilion™



EC	REP	Advena Limited Tower Business Centre, 2nd Flr Tower Street, Swatar, BKR 4013 Malta		Made in the USA Qfix 440 Church Rd, Avondale, Pennsylvania, USA +1 484-720-6053 www.Qfix.com
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Aquilion, Cartesion and Celesteion are trademarks of Canon Medical Systems.

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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.

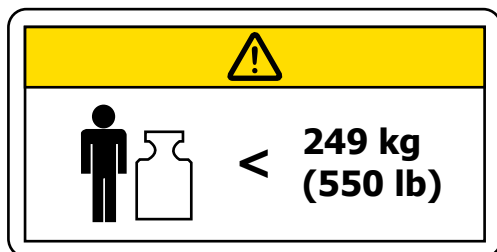
ADDITIONAL WARNINGS

- DO NOT exceed pedestal manufacturer's load rating.
- Maximum patient weight of 249 kg (550 pounds) 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.

GENERAL PRECAUTIONS

WARNING LABELS & DESCRIPTIONS

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



LOAD RATING

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

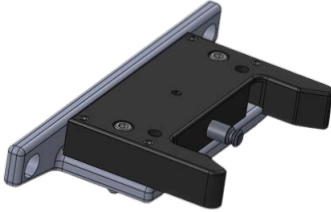
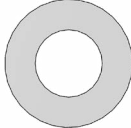

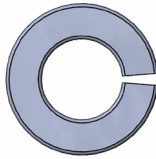
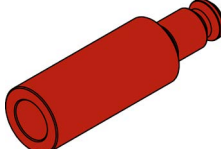
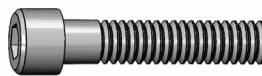
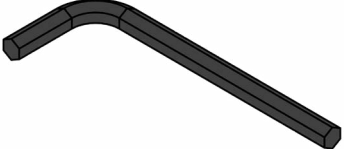

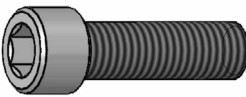
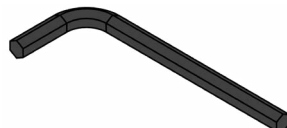


PINCH POINTS

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

INSTALLATION ON CANON AQUILION™

PARTS PROVIDED: RT-4550TAQ & RT-4550KVTAQ

 <p>(1) Foot Latch Assembly</p>	 <p>(2) M12 Flat Washer</p>
 <p>(2) Qfix Locating Bar</p>	 <p>(2) M12 Split Lock Washer</p>
 <p>(1) Alignment Pin</p>	 <p>(2) 1/4-20 x 1.25" SHCS SS (extra - if needed)</p>
 <p>(1) 3/16" Allen wrench</p>	 <p>(2) 1/4-20 x 1.5" SHCS SS (extra - if needed)</p>
 <p>(2) M12 x 40 mm SHCS SS</p>	 <p>(1) 1/8" Allen wrench</p>
<p>TOOLS REQUIRED (not provided):</p> <p>10 mm Allen wrench Flathead screwdriver, US Quarter, or Equal</p>	<p>Hardware kit for CT is located in a cardboard box in the lid of the crate.</p>

INSTALLATION

RT-4550TAQ & RT-4550KVTAQ

INSTALL FOOT END ASSEMBLY

The Foot End Latch Assembly secures to the Canon CT using (2) M12 bolts into the CT Cradle Handle Assembly (Fig. 1).

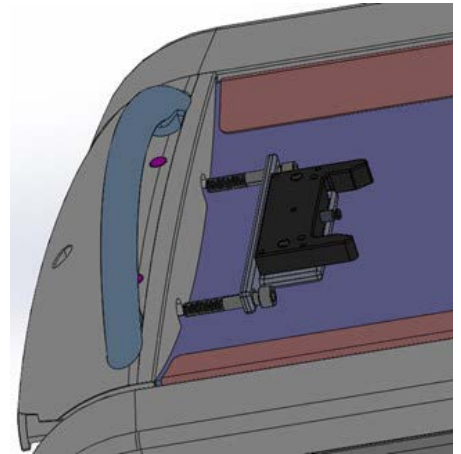


Fig. 1

ADJUST HEIGHT OF FOOT END MOUNTING BLOCK

Steps 1–8, shall verify the Red Alignment Pin, inserted on the CT cradle, can slide freely onto the Foot Latch Mounting Block without binding (Fig. 2).

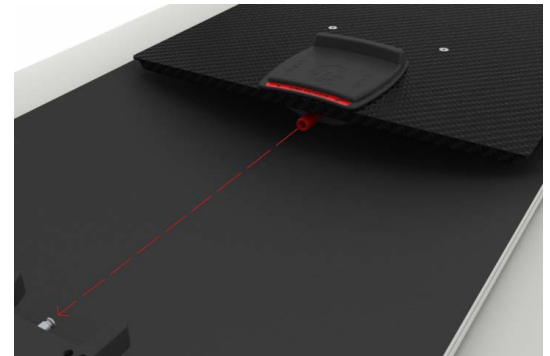


Fig. 2

1. Push the male end of the red Alignment Pin into the socket in the block on the underside of the CT Overlay (Fig. 3) until the handle on the topside reads “LOCKED” (Fig. 4).



Fig. 3

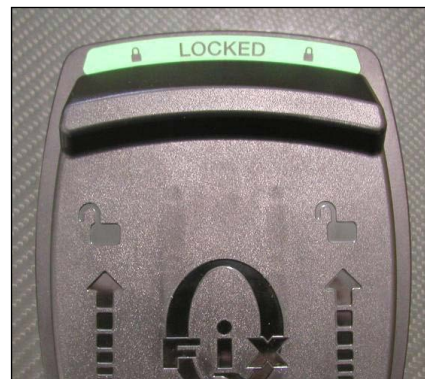


Fig. 4

INSTALLATION

2. Place the CT Overlay on the CT cradle overhanging the head end by 3–4 inches (Fig. 5). Align the CT Overlay on the centerline of the CT cradle (Fig. 6).



Fig. 5



Fig. 6

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. 7).



Fig. 7

INSTALLATION

4. Begin by adjusting the height of the Foot Latch Mounting Block on the existing CT, by loosening the Locking Screws (2) ¼-20 bolts (Fig. 8).
 - 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. 9).
 - 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 (provided) (Fig. 10).
 - c. Adjust the Elevation set screws as needed then engage the Mounting Block Pin into the red Alignment Pin and retighten 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 Locking Screws using ⅜ in. Allen wrench (provided).
 - e. Check that the Foot Latch Mounting Block is parallel to the Foot End Spacer Block as the screws are tightened. If longer bolts are needed, two sets of longer ¼-20 Locking Screws are supplied.
5. 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). Go back to step 3.
6. Remove the red Alignment Pin from the CT Overlay by pulling back on the release handle in the direction indicated by the unlock symbols.
7. 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. 11).
8. To remove, pull/push on the handle to unlock to verify it functions properly (Fig. 12).

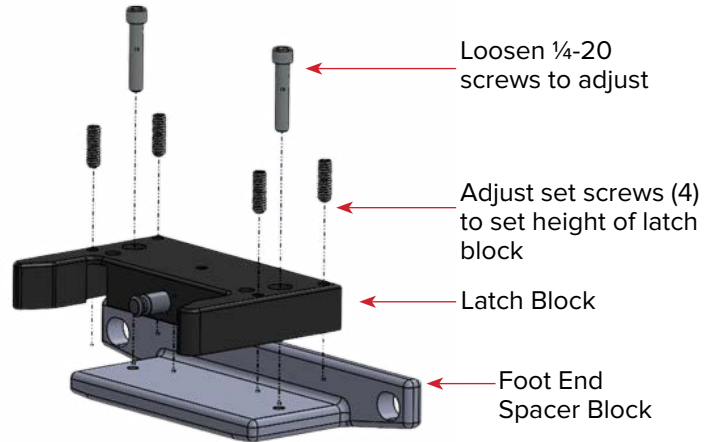


Fig. 8

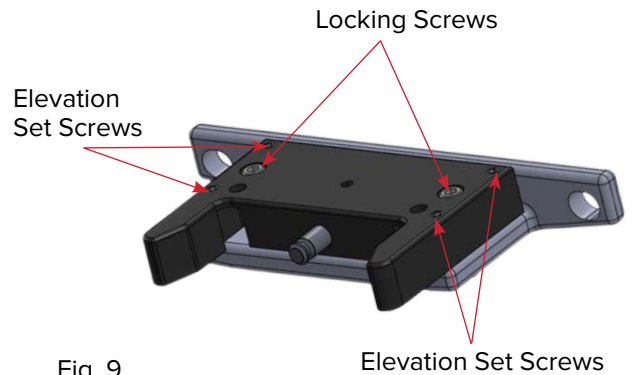


Fig. 9

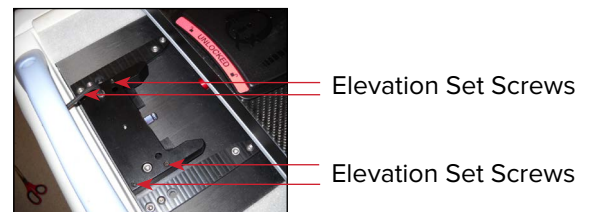


Fig. 10

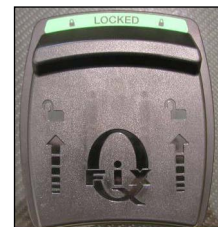


Fig. 11



Fig. 12

INSTALLATION

CT OVERLAY HEAD ALIGNMENT ASSEMBLY INSTALLATION AND ADJUSTMENT

1. Move CT Cradle, so that the overlay is hanging by 3–4 inches.
2. Install Head End Assembly onto CT Overlay using plastic $\frac{3}{8}$ –16 Flat Head Screws (Fig. 13).

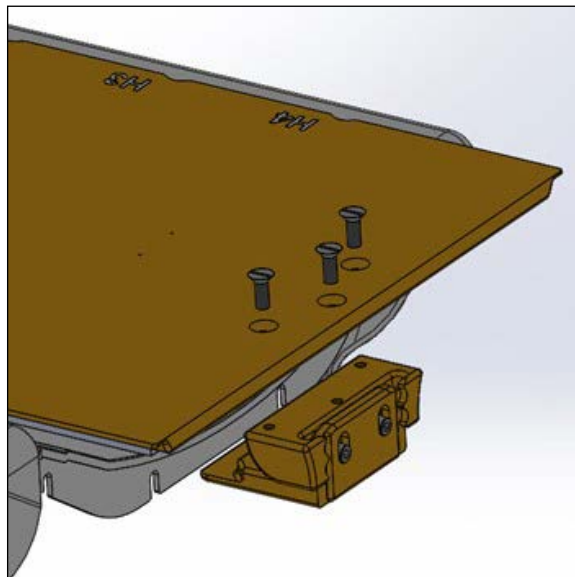


Fig. 13

3. Loosen the M8 screws on the Head End Assembly and slide the Front Lip Catch up or down to a point where it can smoothly slide into the cradle slot (Fig. 14).

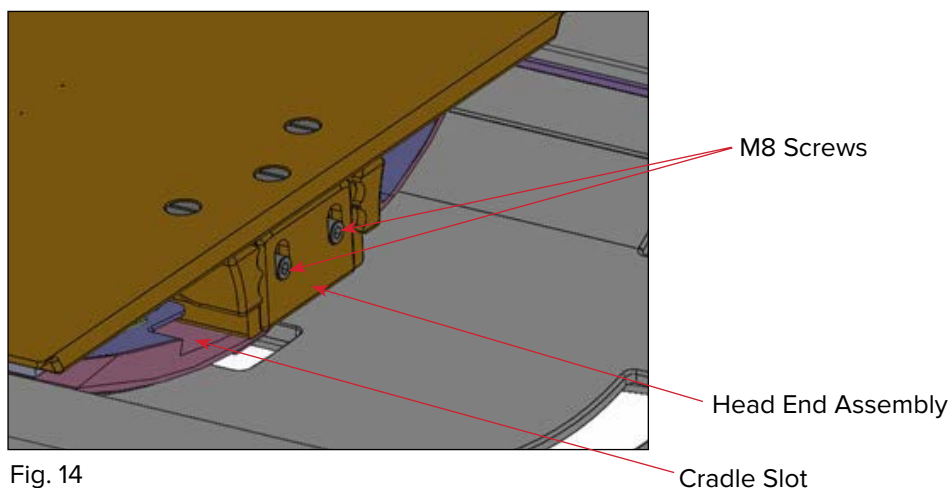


Fig. 14

4. Slide the overlay so that the Front Lip Catch fits inside the cradle slot.
5. Tighten M8 screws to secure the Front Lip Catch.

INSTALLATION

CENTERING CT INSERT ON THE CT CRADLE

1. Attach an indexed Insert to the CT Overlay.
2. Set Locating Bar on Insert at the Head End of the CT.
3. Using the CT Laser alignment system, determine where the alignment beam hits the Centering mark on the Locating Bar (Fig. 15).

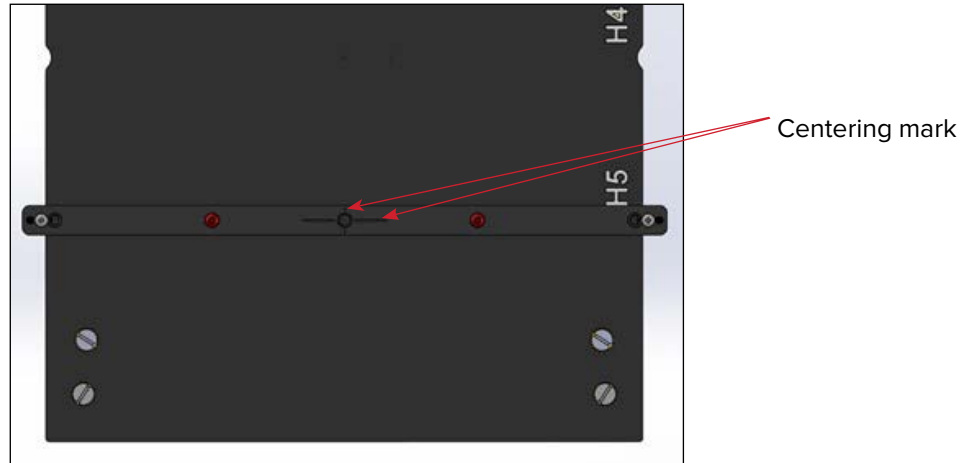


Fig. 15

4. Set the CT Overlay on Canon CT cradle with the head of the CT Insert 3 in. forward of the final position and centered on the Canon CT cradle (Fig. 16).



Fig. 16

INSTALLATION

CENTERING CT INSERT ON THE CT CRADLE, CONTINUED

5. Slide the CT cradle Foot end engaging the Foot Latch Assembly. Do not lock the Latch Assembly.
6. Test the adjustments for fit, sliding action, and latching action.
7. If adjustment is needed, refer to Step 3 in *CT Overlay Head Alignment Assembly Installation and Adjustment* Section.

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. 17).
2. Verify that the 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. 17).

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

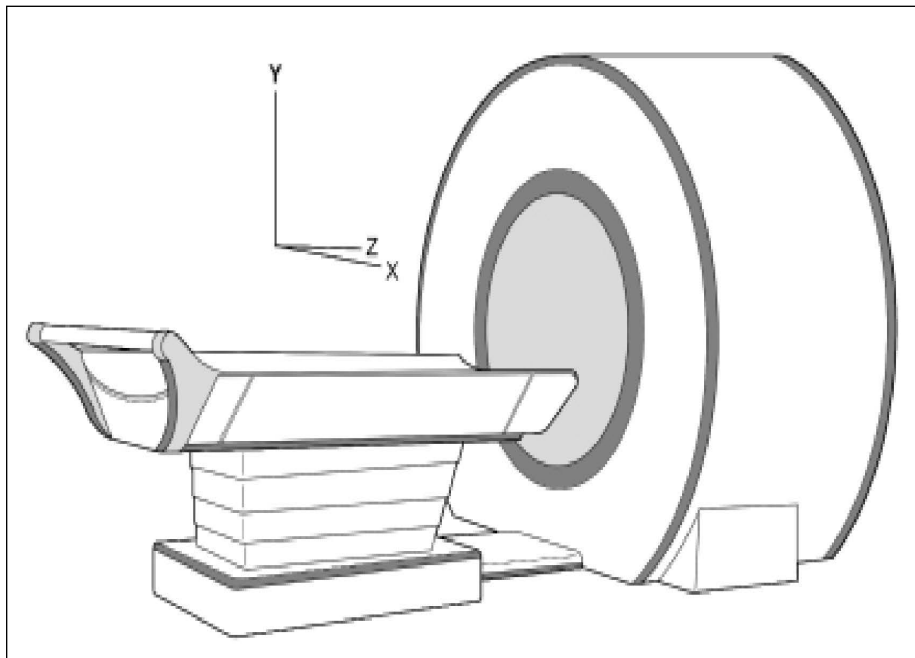
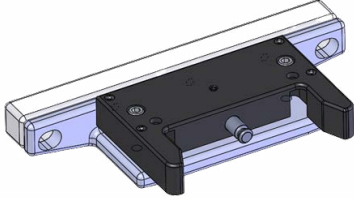
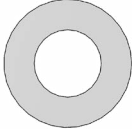

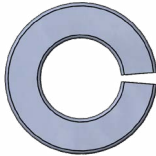
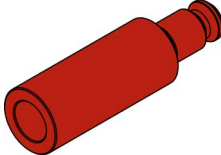

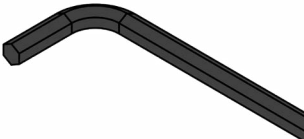

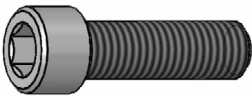
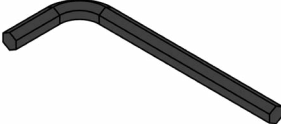


Fig. 17

INSTALLATION ON CANON AQUILION™

PARTS PROVIDED: RT-4550TAQ2 & RT-4550KVTAQ2

 <p>(1) Foot Latch Assembly</p>	 <p>(2) M12 Flat Washer</p>
 <p>(2) Qfix Locating Bar</p>	 <p>(2) M12 Split Lock Washer</p>
 <p>(1) Alignment Pin</p>	 <p>(2) 1/4-20 x 1.25" SHCS SS (extra - if needed)</p>
 <p>(1) 3/16" Allen wrench</p>	 <p>(2) 1/4-20 x 1.5" SHCS SS (extra - if needed)</p>
 <p>(2) M12 x 40 mm SHCS SS</p>	 <p>(1) 1/8" Allen wrench</p>
<p>TOOLS REQUIRED (not provided):</p> <p>10 mm Allen wrench Flathead screwdriver, US Quarter, or Equal</p>	<p>Hardware kit for CT is located in a cardboard box in the lid of the crate.</p>

INSTALLATION

RT-4550TAQ2 & RT-4550KVTAQ2

INSTALL FOOT END ASSEMBLY

The Foot End Latch Assembly secures to the Canon CT using (2) M12 bolts into the CT Cradle Handle Assembly (Fig. 18).

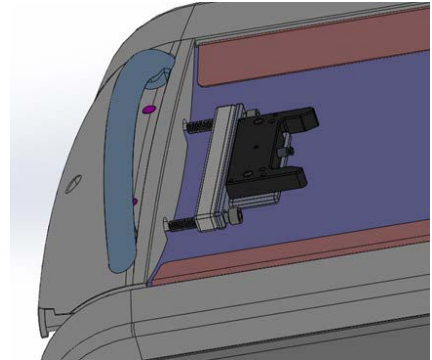


Fig. 18

ADJUST HEIGHT OF FOOT END MOUNTING BLOCK

Steps 1–8, shall verify the Red Alignment Pin, inserted on the CT cradle, can slide freely onto the Foot Latch Mounting Block without binding (Fig. 19).

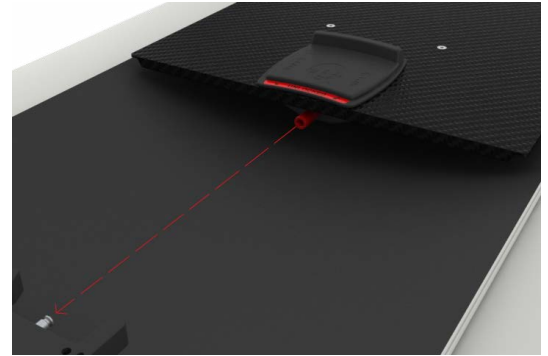


Fig. 19

1. Push the male end of the red Alignment Pin into the socket in the block on the underside of the CT Overlay (Fig. 20) until the handle on the topside reads “LOCKED” (Fig. 21).



Fig. 20

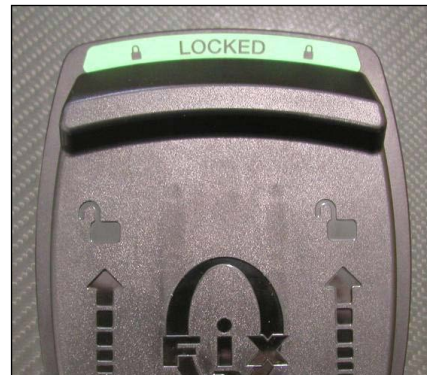


Fig. 21

INSTALLATION

2. Place the CT Overlay on the CT cradle overhanging the head end by 3–4 inches (Fig. 22). Align the CT Overlay on the centerline of the CT cradle (Fig. 23).



Fig. 22



Fig. 23

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. 24).

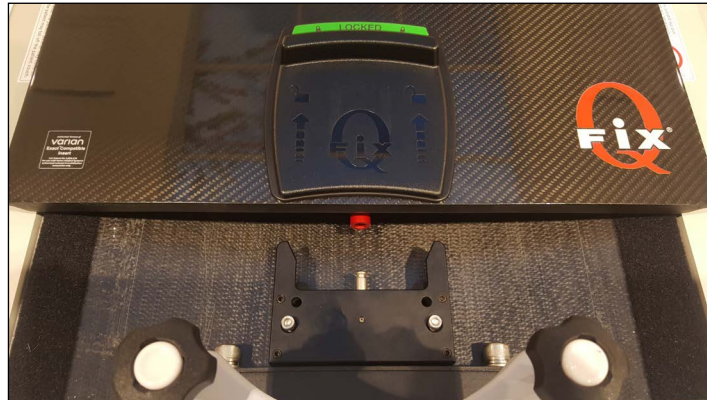


Fig. 24

INSTALLATION

4. Begin by adjusting the height of the Foot Latch Mounting Block on the existing CT, by loosening the Locking Screws (2) ¼-20 bolts (Fig. 25).
 - f. Begin by adjusting the height of the Foot Latch Mounting Block on the existing CT, by loosening the Locking Screws (2) ¼-20 (Fig. 26).
 - g. Adjust the height of the Mounting Block using the (4) Elevation Set Screws (found on the mounting block) using the ⅛ in. Allen Wrench (provided) (Fig. 27).
 - h. Adjust the Elevation set screws as needed then engage the Mounting Block Pin into the red Alignment Pin and retighten the Locking Screws while holding the Mounting Block parallel, from side to side, to the CT Overlay bottom.
 - i. Lock the Foot Latch Mounting Block by tightening the (2) ¼-20 Locking Screws using ⅜ in. Allen wrench (provided).
 - j. Check that the Foot Latch Mounting Block is parallel to the Foot End Spacer Block as the screws are tightened. If longer bolts are needed, two sets of longer ¼-20 Locking Screws are supplied.
5. 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). Go back to step 3.
6. Remove the red Alignment Pin from the CT Overlay by pulling back on the release handle in the direction indicated by the unlock symbols.
7. 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. 28).
8. To remove, pull/push on the handle to unlock to verify it functions properly (Fig. 29).

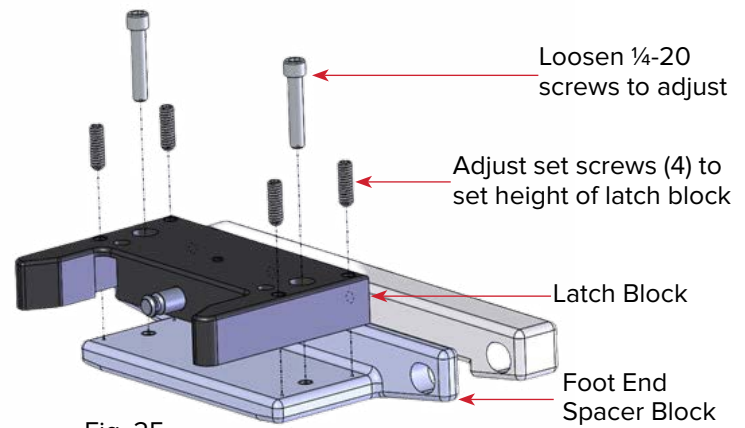


Fig. 25

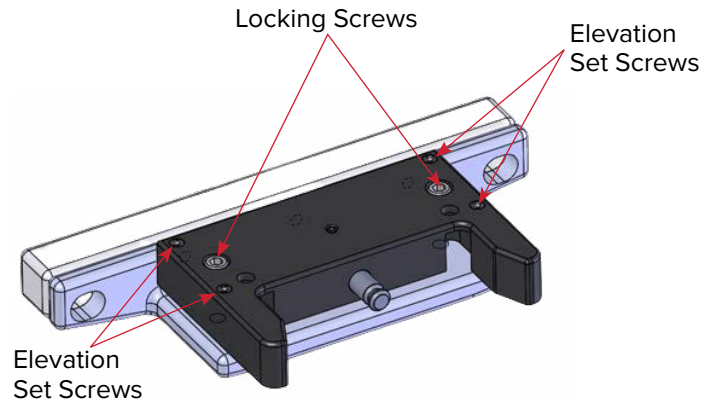


Fig. 26



Fig. 27

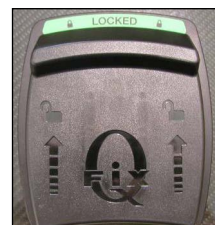


Fig. 28



Fig. 29

INSTALLATION

CT OVERLAY HEAD ALIGNMENT ASSEMBLY INSTALLATION AND ADJUSTMENT

1. Move CT Cradle, so that the overlay is hanging by 3–4 inches.
2. Install Head End Assembly onto CT Overlay using plastic $\frac{3}{8}$ –16 Flat Head Screws (Fig. 30).

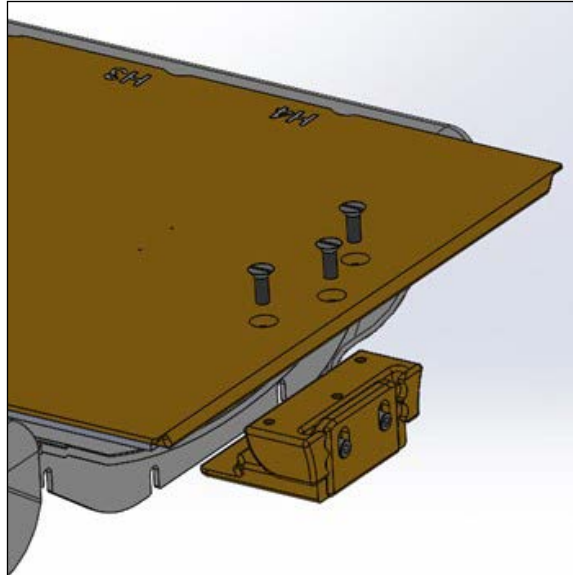


Fig. 30

3. Loosen the M8 screws on the Head End Assembly and slide the Front Lip Catch up or down to a point where it can smoothly slide into the cradle slot (Fig. 31).

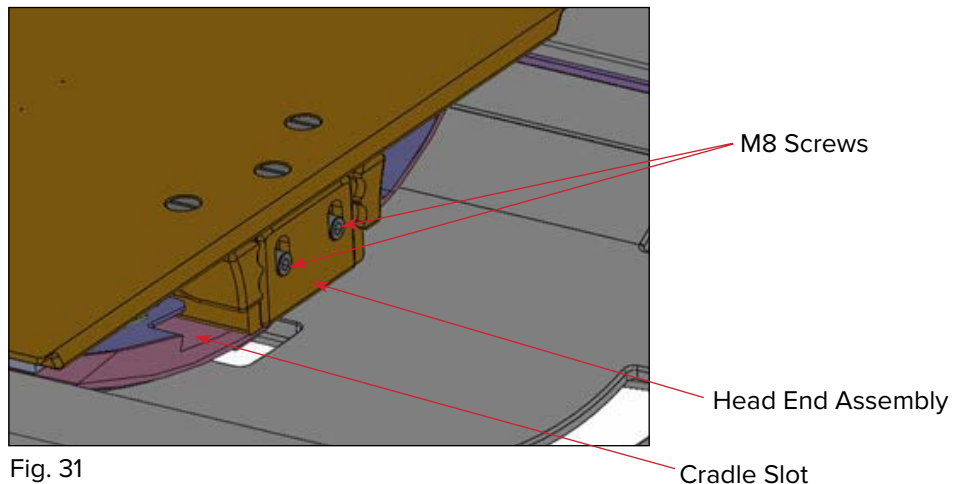


Fig. 31

4. Slide the overlay so that the Front Lip Catch fits inside the cradle slot.
5. Tighten M8 screws to secure the Front Lip Catch.

INSTALLATION

CENTERING CT INSERT ON THE CT CRADLE

1. Attach an indexed Insert to the CT Overlay.
2. Set Locating Bar on Insert at the Head End of the CT.
3. Using the CT Laser alignment system, determine where the alignment beam hits the Centering mark on the Locating Bar (Fig. 32).

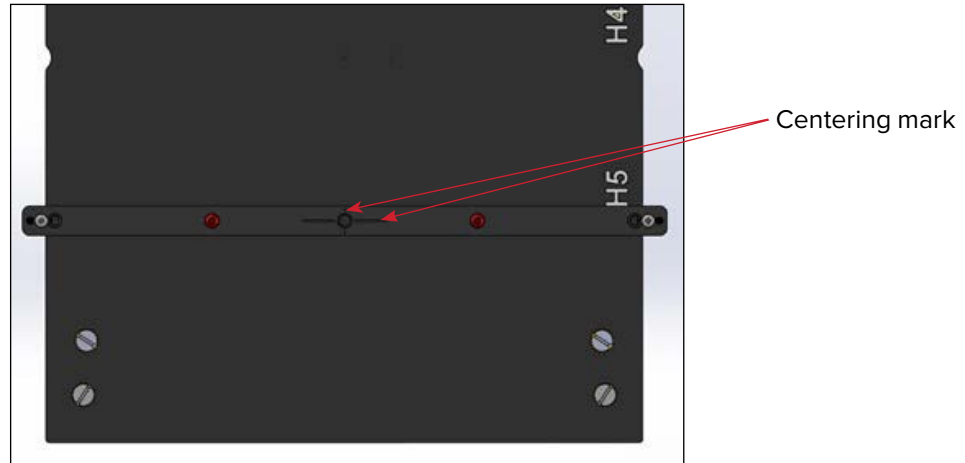


Fig. 32

4. Set the CT Overlay on Canon CT cradle with the head of the CT Insert 3 in. forward of the final position and centered on the Canon CT cradle (Fig. 33).

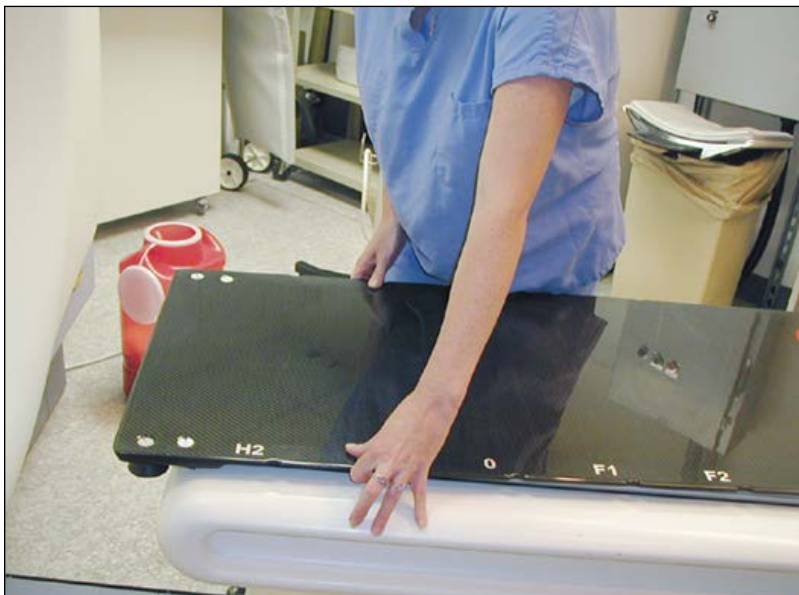


Fig. 33

INSTALLATION

CENTERING CT INSERT ON THE CT CRADLE, CONTINUED

5. Slide the CT cradle Foot end engaging the Foot Latch Assembly. Do not lock the Latch Assembly.
6. Test the adjustments for fit, sliding action, and latching action.
7. If adjustment is needed, refer to Step 3 in *CT Overlay Head Alignment Assembly Installation and Adjustment* Section.

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. 34).
2. Verify that the 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. 34).

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

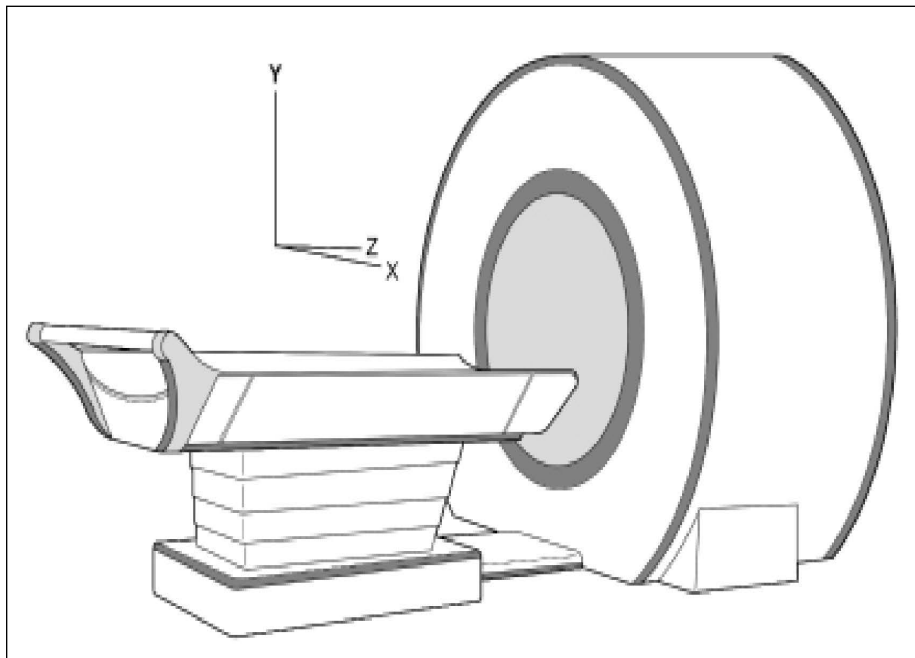
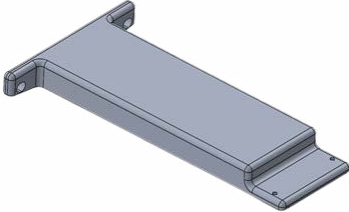
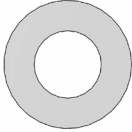
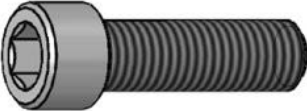
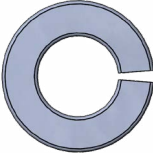


Fig. 34

INSTALLATION ON CANON CARTESION™ AND CANON CELESTEION™

PARTS PROVIDED: RT-4550TAQ2

 <p>(1) Foot End Extension</p>	 <p>(2) M12 Flat Washer</p>
 <p>(2) M12 x 40 screw</p>	 <p>(2) M12 Split Lock Washer</p>

INSTALLATION

INSTALL FOOT END ASSEMBLY

1. The Foot End Extension secures onto the Canon CT Cradle Assembly using (2) M12 bolts (Fig 35).

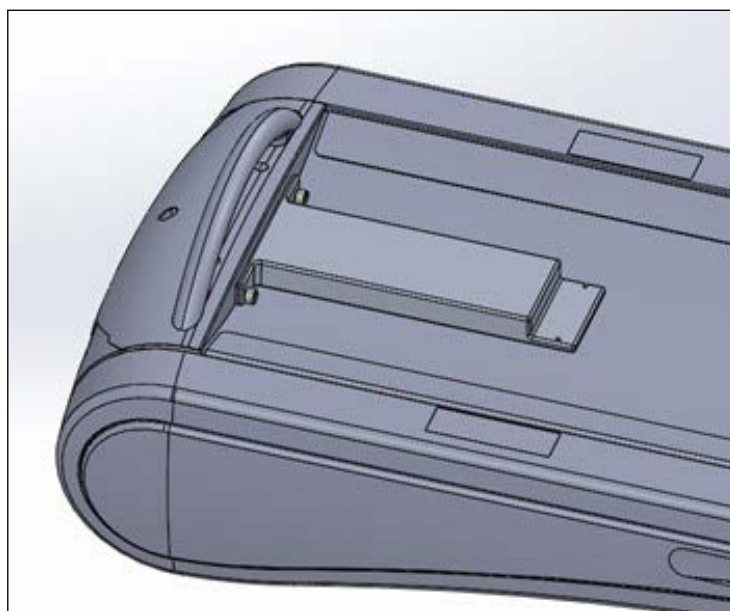


Fig. 35

2. Install Mounting Latch Block using (2) ¼-20 screws and (4) set screws (Fig 36).

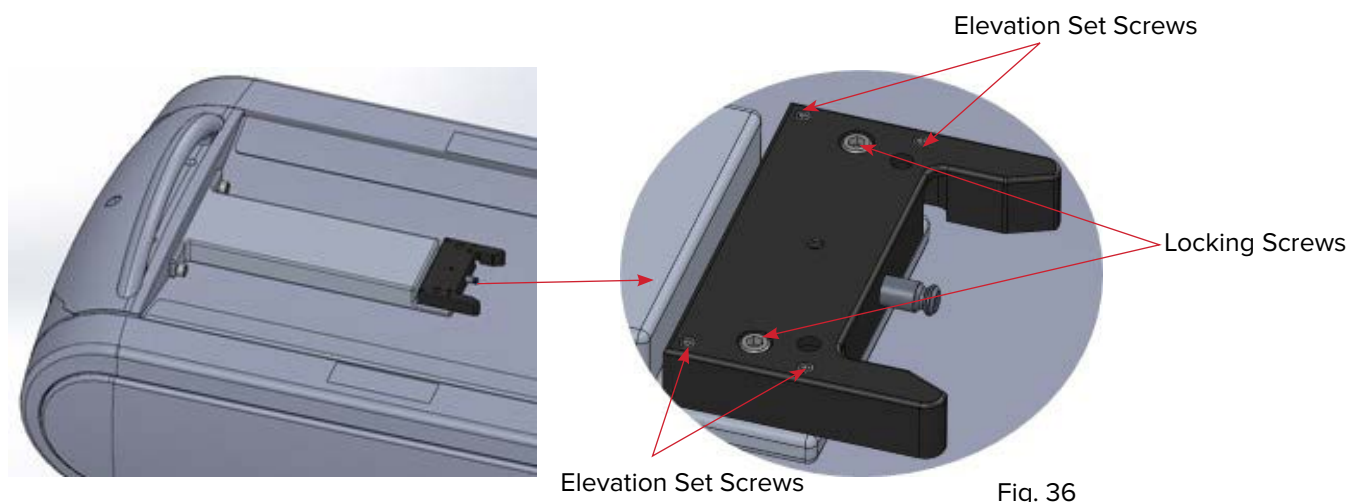


Fig. 36

INSTALLATION

ADJUST HEIGHT OF FOOT END MOUNTING BLOCK

Steps 1–8, shall verify the Red Alignment Pin, inserted on the CT cradle, can slide freely onto the Foot Latch Mounting Block without binding (Fig. 37).

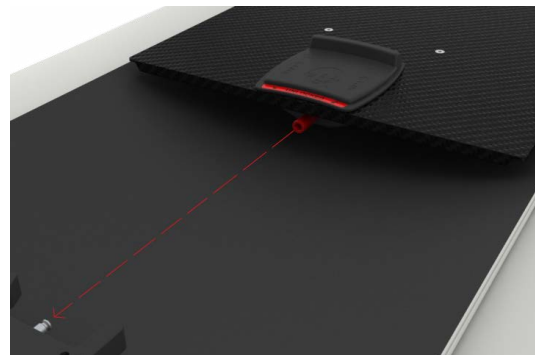


Fig. 37

1. Push the male end of the red Alignment Pin into the socket in the block on the underside of the CT Overlay (Fig. 38) until the handle on the topside reads “LOCKED” (Fig. 39).



Fig. 38

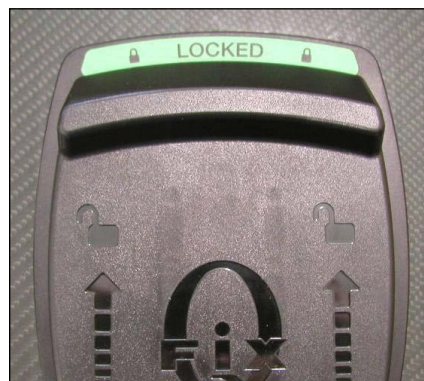


Fig. 39

INSTALLATION

2. Place the CT Overlay on the CT cradle overhanging the head end by 3–4 inches (Fig. 40). Align the CT Overlay on the centerline of the CT cradle (Fig. 41).

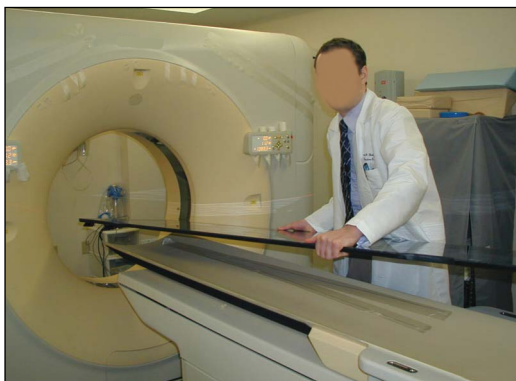


Fig. 40



Fig. 41

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. 42).



Fig. 42

INSTALLATION

4. Begin by adjusting the height of the Foot Latch Mounting Block on the existing CT, by loosening the Locking Screws (2) ¼-20 bolts (Fig. 43).
 - k. Begin by adjusting the height of the Foot Latch Mounting Block on the existing CT, by loosening the Locking Screws (2) ¼-20 (Fig. 44).
 - l. Adjust the height of the Mounting Block using the (4) Elevation Set Screws (found on the mounting block) using the ⅛ in. Allen Wrench (provided (Fig. 45).
 - m. Adjust the Elevation set screws as needed then engage the Mounting Block Pin into the red Alignment Pin and retighten the Locking Screws while holding the Mounting Block parallel, from side to side, to the CT Overlay bottom.
 - n. Lock the Foot Latch Mounting Block by tightening the (2) ¼-20 Locking Screws using ⅜ in. Allen wrench (provided).
 - o. Check that the Foot Latch Mounting Block is parallel to the Spacer Plate as the screws are tightened. If longer bolts are needed, two sets of longer ¼-20 Locking Screws are supplied.
5. 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 retighten the two Mounting Block Screws. (DO NOT OVERTIGHTEN). Go back to step 3.
 6. Remove the red Alignment Pin from the CT Overlay by pulling back on the release handle in the direction indicated by the unlock symbols.
 7. 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. 46).
 8. To remove, pull/push on the handle to unlock to verify it functions properly (Fig. 47).

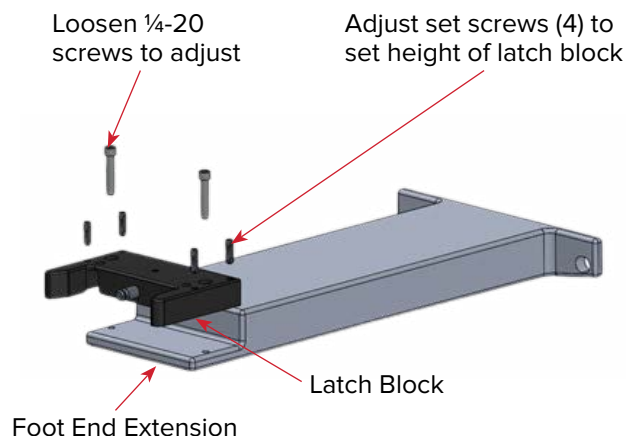


Fig. 43

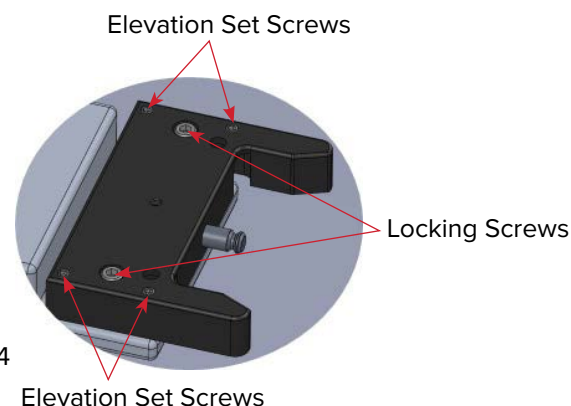


Fig. 44



Fig. 45

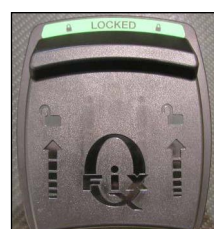


Fig. 46



Fig. 47

INSTALLATION

CT OVERLAY HEAD ALIGNMENT ASSEMBLY INSTALLATION AND ADJUSTMENT

1. Move CT Cradle, so that the overlay is hanging by 3–4 inches.
2. Install Head End Assembly onto CT Overlay using plastic $\frac{3}{8}$ -16 Flat Head Screws (Fig. 48).

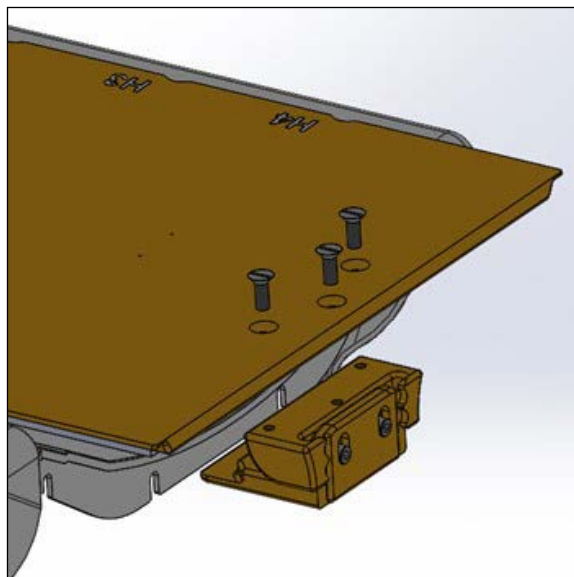


Fig. 48

3. Loosen the M8 screws on the Head End Assembly and slide the Front Lip Catch up or down to a point where it can smoothly slide into the cradle slot (Fig. 49).

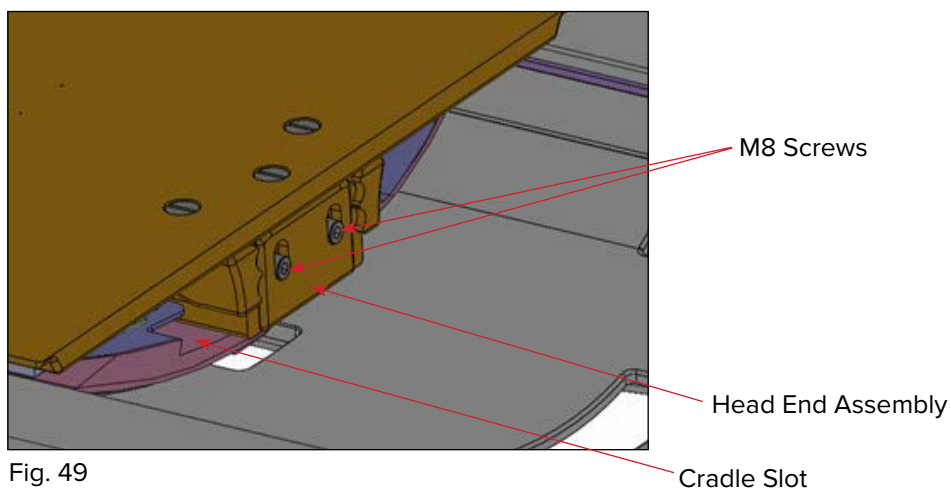


Fig. 49

4. Slide the overlay so that the Front Lip Catch fits inside the cradle slot.
5. Tighten M8 screws to secure the Front Lip Catch.

INSTALLATION

CENTERING CT INSERT ON THE CT CRADLE

1. Attach an indexed Insert to the CT Overlay.
2. Set Locating Bar on Insert at the Head End of the CT.
3. Place Centering Fixture on Locating Bar. Using the CT Laser alignment system, determine where the alignment beam hits the Centering Fixture guide slits mark on the Locating Bar (Fig. 50).

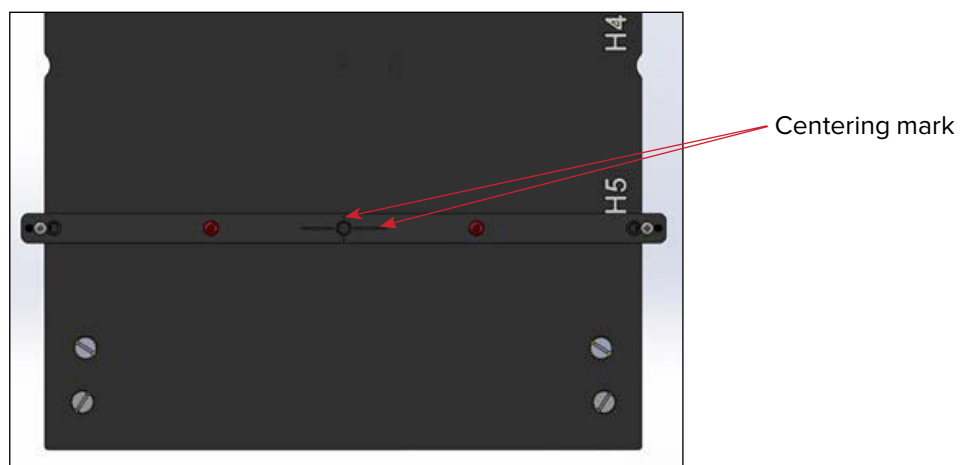


Fig. 50

4. Set the CT Overlay on Canon CT cradle with the head of the CT Insert 3 in. forward of the final position and centered on the Canon CT cradle (Fig. 51).

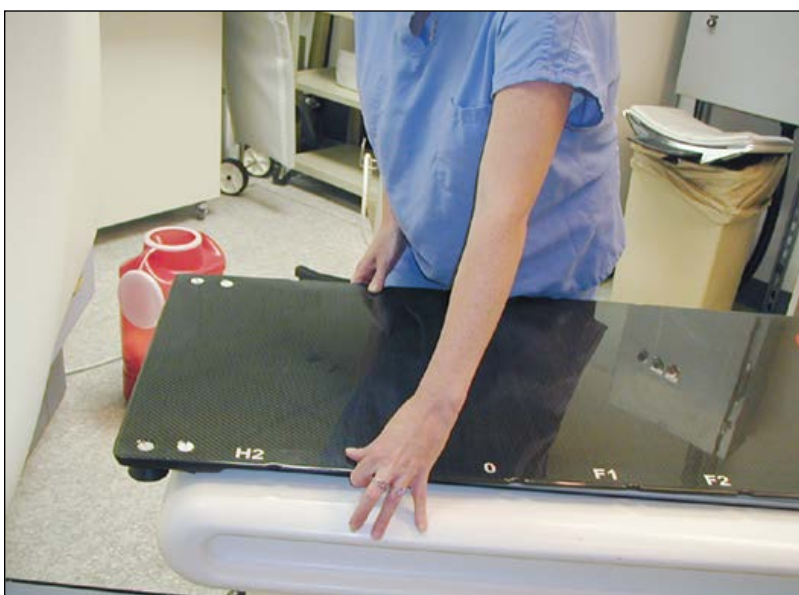


Fig. 51

INSTALLATION

CENTERING CT INSERT ON THE CT CRADLE, CONTINUED

5. Slide the CT cradle Foot end engaging the Foot Latch Assembly. Do not lock the Latch Assembly.
6. Test the adjustments for fit, sliding action, and latching action.
7. If adjustment is needed, refer to Step 3 in *CT Overlay Head Alignment Assembly Installation and Adjustment* Section.

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. 52).
2. Verify that the 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. 52).

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

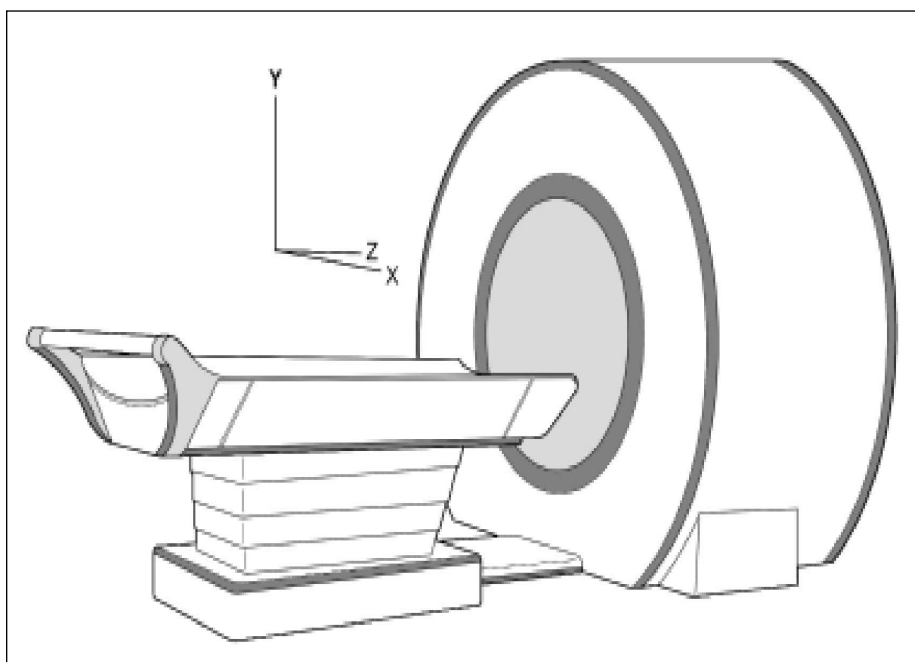


Fig. 52



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