

INSTALLATION MANUAL

RT-4551KV

kVue[™] Couch Top with Moving Rails Technology







Advena Limited

Malta

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Made in the USA by

Qfix

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ETR® and Exact® are registered trademarks of Varian Medical Systems.

TrueBeam is a trademark of Varian Medical Systems.

Precise® is a registered trademark of Elekta AB.

ZXT and TxT are trademarks of Siemens AG.

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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 +1 484-720-6054 OR TECHSUPPORT@QFIX.COM.

! WARNING! THE ONETOUCH IS A PRECISION MECHANISM AND IS ONLY FOR USE WITH APPROVED QFIX KVUE DEVICES. UNAPPROVED NON-QFIX DEVICES THAT HAVE NOT BEEN VALIDATED BY QFIX MAY NOT BE SAFE FOR USE AND WILL VOID WARRANTY IF USED.

SERIOUS INCIDENTS

Please report any serious incidents (e.g. incidents which result in or have the potential to result in death or serious injury) to both Qfix and your country's Competent Authority.

Patient Target Groups

Patients undergoing radiation therapy or diagnostic imaging procedures.

Intended Users

The intended user for the products is a person qualified in accordance with the requirements of the regulatory region.

COLLISION HAZARDS

Use caution when moving the kVue or gantry to avoid equipment damage or patient injury. The wide variety of motions obtainable with couch bases and treatment heads may present situations where the kVue Insert collides with other items. Equipment damage may occur.

GENERAL PRECAUTIONS

WARNING LABELS & DESCRIPTIONS

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



Maximum Safe Working Loads

Do NOT exceed 249Kg (550lb) uniformly distributed load or maximum working load of couch base, whichever is less

INSERT: Refer to Insert for specific load rating.

ACCESSORY RAIL: 45Kg (100lb) at 10cm (4in)

LOAD RATING

DO NOT exceed 249 kg (550 lb) uniformly distributed load or maximum safe working load of couch base, whichever is less.

The load rating for each kVue Insert is specified in the instructions for the kVue Insert.

The accessory rail load rating is 45 kg (100 lb) at 10 cm (4 in.).



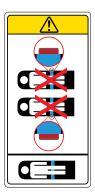
OR



"NO STEP" LINE

The yellow line on the kVue Insert represents the end of the support beams. The area beyond the line has been designed and tested to support the patient's upper torso or lower body not exceeding the load rating.

Standing or sitting on the kVue Insert beyond the "No Step" line may damage the kVue Insert or cause injury.



ONETOUCH™ LATCH

Place a patient on the kVue Couch Top ONLY when the red collar of the latch button is not visible. The OneTouch Latch has a built-in indicator to verify proper engagement. If the red collar of the latch button is visible, the locking mechanism is not engaged.

GENERAL PRECAUTIONS

WARNING LABELS & DESCRIPTIONS





PINCH POINTS

Use caution when moving the kVue Couch Top to avoid patient injury. Extreme care has been taken to minimize pinch points and other hazards associated with the kVue Couch Top. Common pinch points include:

- Between the kVue Insert and the One-Touch Latch
- Between the kVue Insert and the support beams
- Between the kVue Couch Top and other pieces of equipment in the treatment room, including the Linac treatment head



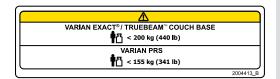




KVUE INSERT INSTALLATION AND REMOVAL

! WARNING! NEVER LIFT THE END OF THE KVUE INSERT.

The mating pins may bend or break, rendering the kVue Couch Top unusable.



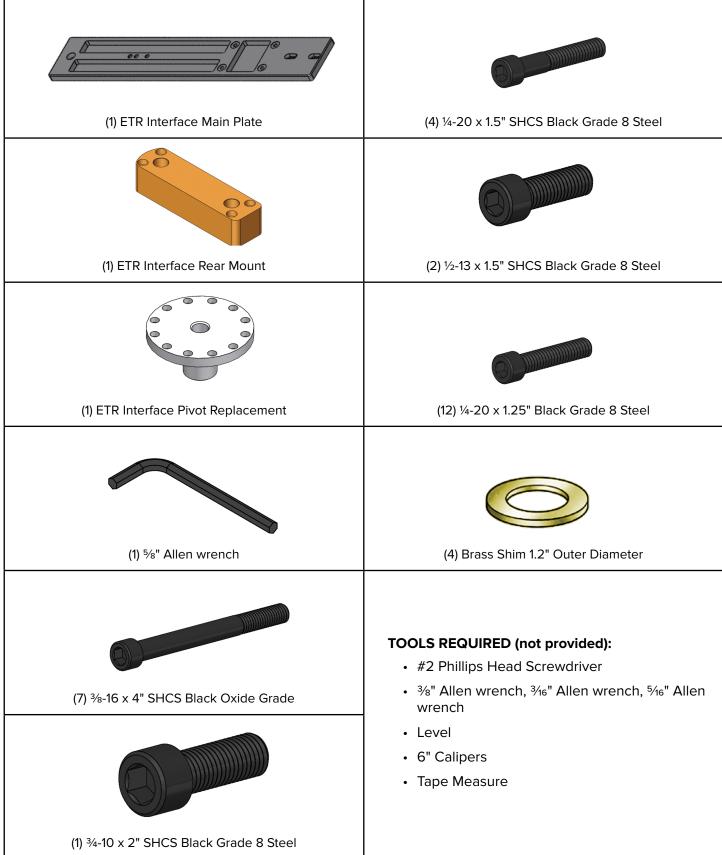
LOAD RATING

DO NOT exceed 200 kg (440 lb) uniformly distributed load or maximum safe working load of couch base, whichever is less when using with the Varian Exact® or TrueBeam™ Couch Base.

DO NOT exceed 155 kg (341 lb) uniformly distributed load or maximum safe working load of couch base, whichever is less when using with the Varian PRS.

ETR Interface Plate INSTALLATION MANUAL

PARTS PROVIDED



1. Remove all of the patient panels from the ETR couch top.

! NOTE! Consult with manufacturer's installation manual for removal instructions.

- 2. Release the rear latch of the couch top and rotate the couch 90 degrees.
- 3. Place a #2 Philips head screwdriver up through the clearance hole in the bottom of the frame and remove the screw holding the cover panel (Fig 1).



Fig. 1

- 4. Rotate the couch top 90 degrees the opposite direction and remove the other screw holding the cover panel, then remove the cover panel.
- 5. Once the cover panel is removed, remove the large socket head cap screw using the 5/8" allen wrench (Fig. 2).



Fig. 2

6. Once this screw is removed, the couch can be lifted off the couch base.

! NOTE! ETR Couch Top is heavy, and should be handled by at least 2 people.

- 7. Next, using the 3/16" Allen wrench, remove the (12) 1/4-20 screws holding the pivot post in place (Fig. 3).
 - a. To loosen the pivot post, thread the 3/4" screw in until it bottoms out. Then keep turning until the pivot post is loose
 - b. To remove the $\frac{3}{4}$ " screw, insert a $\frac{1}{4}$ -20 screw into one of the holes and thread it in about halfway. You will then be able to back out the $\frac{3}{4}$ " screw.

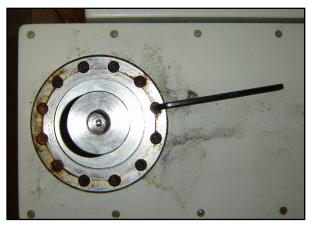


Fig. 3

- 8. Once the pivot post is removed, clean the recess.
- 9. Place the Qfix Front Mount into the recess and replace the $(12) \frac{1}{4}$ -20 screws using the $\frac{3}{16}$ " Allen wrench (Fig. 4).

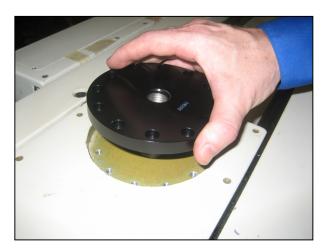


Fig. 4

10. Use the $\frac{3}{6}$ " Allen wrench to remove the latch at the foot end of the table (Fig 5).



Fig. 5

11. Install the Qfix rear mount, using (4) $\frac{1}{4}$ –20 x 1.5" screws that have been provided (Fig. 6).



Fig. 6

- 12. Once both the front and rear mounts are in place, install the Interface Plate using the (1) $\frac{3}{4}$ -10 x 2" screws and (2) $\frac{1}{2}$ -13 x 1.5" screws (Fig. 7).
 - a. Before tightening the bolts ensure that the mounting plate is straight. This will help ensure the kVue will be straight on the couch base.
 - b. This can be done by measuring from the edge of the Interface Plate to the edge of the carriage or by using the lasers in the room.

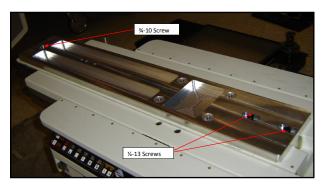
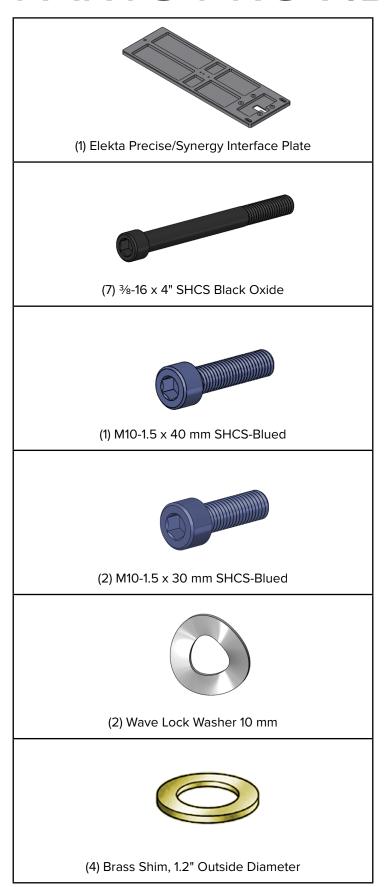


Fig. 7

13. Proceed to kVue installation section, located on page 46.

Elekta Precise®/ Synergy Interface Plate INSTALLATION MANUAL

PARTS PROVIDED



TOOLS REQUIRED (not provided):

- #2 Phillips head screwdriver
- 3/8" Allen wrench
- M8 Allen
- 6" Calipers
- · Tape Measure

1. Remove existing top including rear D-handle lock (if present), and the 2 plastic wear strips.

! NOTE! Consult with manufacturer's installation manual for removal instructions.

2. The Elekta Precise® cradle should now look like Fig. 8

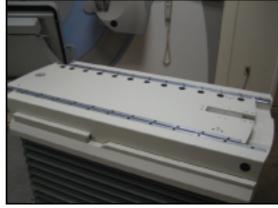


Fig. 8

- 3. Position Interface Plate so that the M10 tapped holes in the Elekta Precise® cradle can be seen through the top slot and the back two slots of the Interface Plate.
- 4. The un-machined side should be face down on the Elekta Precise® cradle (Fig. 9).

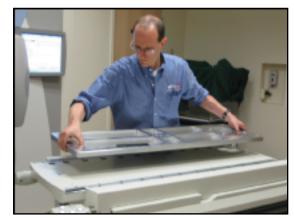


Fig. 9

5. Loosely attach the Interface Plate to the Elekta Precise® cradle with the (3) M10 x 40 screws using a M8 Allen wrench. For the 2 back screws, include a 10 mm wave lock washer (Fig. 10).



Fig. 10

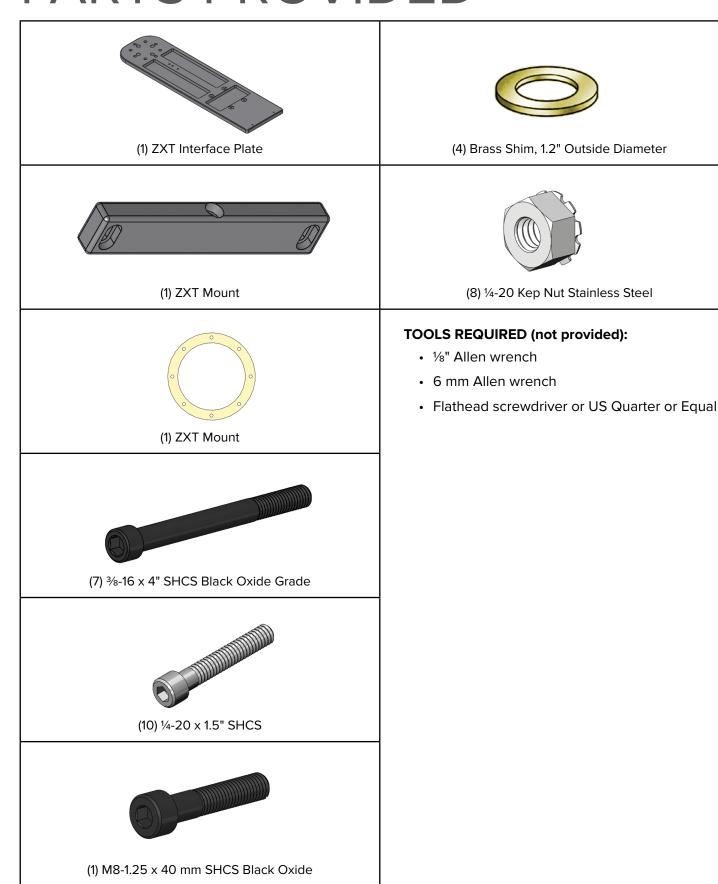
- 6. With the Interface Plate loosely in place, align it so that it is parallel to the couch base.
- 7. To determine if the Interface Plate is parallel to the couch base, measure the distance from the far edge of the Interface Plate to the edge of the couch base.
- 8. Then measure the distance from the near edge of the Interface Plate to the edge of the couch base.
- 9. With the Interface Plate parallel to Elekta Precise couch base, tighten the 3 interface screws.
- 10. Place the level on the Interface Plate. As before, check for levelness in multiple locations. Shims may be required to level the Interface Plate.

! NOTE! If the Interface Plate is not level, check to make sure there is not any debris trapped between the Interface Plate and the couch base.

11. Proceed to kVue installation section, located on page 45.

Siemens ZXT[™] Interface Plate INSTALLATION MANUAL

PARTS PROVIDED



1. Remove all of the panels attached to the couch base, so that you are left with just the steel frame.

! NOTE! Consult with manufacturer's installation manual for removal instructions.

2. Remove the white plastic panel in the center of the table. This should be held on with (4) Phillips head screws.

3. Once the panel is removed, use a 5 mm Allen wrench to remove the four M6 screws (Fig. 11). Place screws aside for later use.

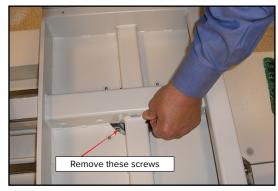


Fig. 1

4. Release the D-Handle at the foot of the table and rotate the table 45 degrees. This will expose 4 other M6 screws which can now be removed. Place screws aside for later use.

! NOTE! After removing these screws the table will no longer be attached to the couch base and may become unstable.

- 5. Remove the old couch top and place on the ground, upside down, so that the bearing is visible.
- 6. Remove the bearing from the bottom of the old couch.
- 7. Turn over the Interface Plate. Place the round spacer provided so that it lines up with the 8-hole pattern on the bottom of the plate.

8. Next, using the (8) $\frac{1}{4}$ -20 x 1.5" SHCS and a $\frac{3}{16}$ " Allen wrench, attach the bearing to the Interface Plate (Fig. 12).

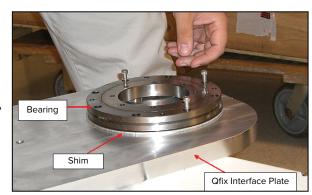


Fig. 12

9. After all 8 screws have been secured, flip over the interface plate and install the (8) 1/4-20 Kep nuts on the backs of the screws (Fig. 13).



Fig. 13

10. Using a 6 mm Allen wrench, remove the locating disk from the D-Handle (Fig. 14).



Fig. 14

11. Place the Interface Plate onto the couch base. The bearing should slide over the 4 pins located in the couch base (Fig. 15).



Fig. 15

12. Using the (8) M6 screws removed during steps 3 & 4, reattach the bearing to the couch base. This will be done in a similar manner to the removal steps.

13. First, attach the 4 screws visible through the access holes, then rotate the Interface Plate 45 degrees and attach the other 4 screws (Fig. 16).



Fig. 16

14. Next, attach the rear mounting block to the Interface Plate using the (2) $\frac{1}{4}$ -20 x 1.5" SHCS (Fig. 17).

! NOTE! Make sure the detent or counter bore is pointing away from the D-Handle.

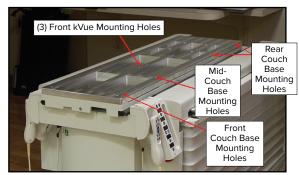
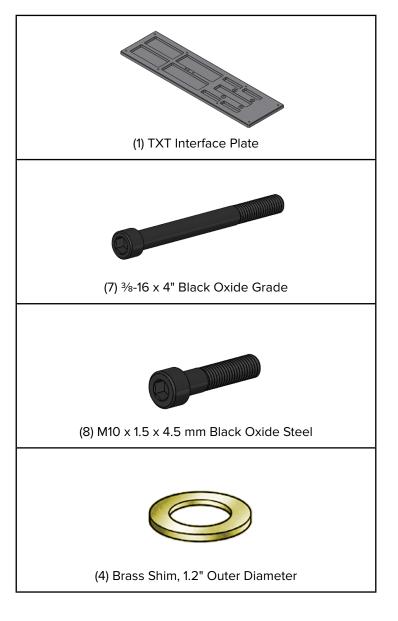


Fig. 17

- 15. Attach the rear mount block to the D-Handle using the $M8 \times 40$ mm screw. The plate may have to be lifted slightly in order to get the screw lined up.
- 16. After all the screws are tight, check to make sure the Interface Plate is level. If it is not level, place shims between the rear mount and the Interface Plate (Fig. 17). Then repeat Steps 11 & 12.
- 17. Proceed to kVue installations, located on page 45.

Siemens TXT Interface Plate INSTALLATION MANUAL

PARTS PROVIDED



TOOLS REQUIRED (not provided):

- #2 Phillips head screwdriver
- 8 mm Allen wrench
- Level
- 6" Calipers
- · Tape Measure

 Remove the existing table and clean any debris off the couch base surface with a damp cloth. Figure 18 shows a couch base that is ready for installation.

! NOTE ! Consult with manufacturer's installation manual for removal instructions.



Fig. 18

2. Place the Interface Plate onto the couch base, with the 3 front kVue mounting holes at the gantry end of the couch base (Fig. 19).

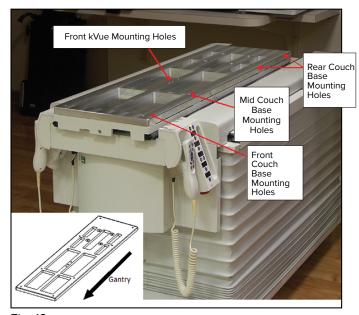


Fig. 19

3. Install the (8) M10 \times 45 mm SHCS using the 8 mm Allen wrench. The holes are labeled in Fig. 20.

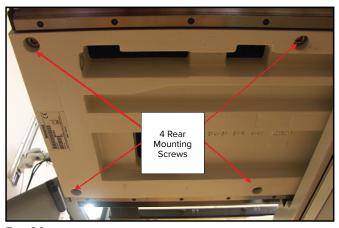


Fig. 20

- 4. Slide the carriage to the far rear position and install the 4 rear screws.
- 5. Push the carriage all the way forward and install the 2 front screws.

! NOTE! In order to install the mid mounting holes, the carriage will have to be moved to the side and forward. This must be done for each side (Fig. 21).



Fig. 21

- 6. Once all the screws are in place, make sure the Interface Plate is aligned straight on the couch base before completely tightening the screws.
- 7. Proceed to kVue Installation section, located on page 45.

Varian Exact® Couch Base INSTALLATION MANUAL

PARTS PROVIDED



TOOLS REQUIRED (not provided):

- #2 Phillips head screwdriver
- 3/8" Allen wrench
- 3/16" Allen wrench
- 5/16" Allen wrench
- Level
- 6" Calipers
- Tape Measure

KVUE™ PINCH POINT COVER, VARIAN EXACT®/ TRUEBEAM™ COUCH BASE



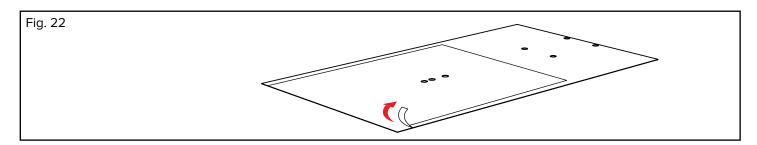
WARNING

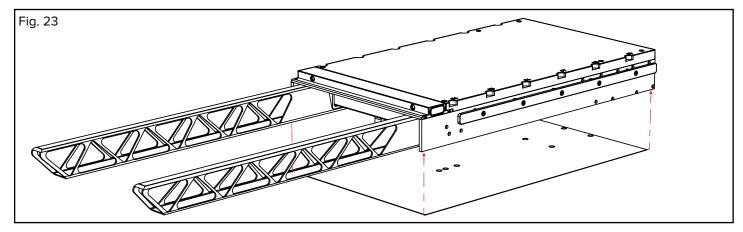
MUST BE INSTALLED WHEN MOUNTING THE KVUE ON THE VARIAN EXACT® /TRUEBEAM™ COUCH BASE.*

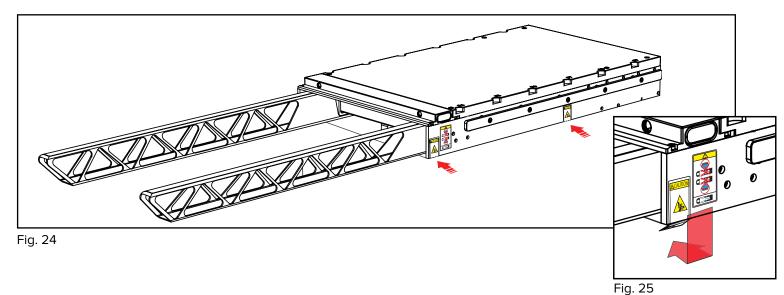
* This includes, but is not limited to, all Varian[®] Linear Accelerators with the Exact[®] or TrueBeam[™] Couch Base. This includes the Low and High Energy C-Series Clinacs[®], Acuity[™], and Ximatron[®] product lines.

! NOTE! Installation of kVue Cover should be done before installation of the kVue.

- 1. Before applying kVue Pinch Point Cover, wipe down the under side of the kVue with isopropyl alcohol and dry with a lint free cloth. Make sure surface is dry before applying kVue Pinch Point Cover.
- 2. Remove adhesive backing from kVue Pinch Point Cover (Fig. 22).
- 3. Line up cover with the bottom of the kVue and apply (Fig. 23).
- 4. Apply two pinch point CAUTION labels where shown in Fig. 24. Repeat this step on the alternate side, applying the remaining two labels.
 - a. Remove adhesive backing from decal to apply.
 - b. When applying decals the dashed line should be collinear with the bottom edge of the kVue and then folded to adhere to the bottom of the Cover as shown in Fig. 25.
- 5. Refer to kVue Installation Manual to attach the kVue onto the couch base.







1. Before installation of the kVue, remove the back panel, by removing the 6 screws (Fig 26). Place screws aside for later use.

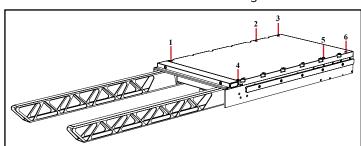


Fig. 26



2. Place the 4 shims that are provided in the shim kit, concentrically over the 4 rear tapped holes in the Exact® couch base (Fig. 27 and Fig 28).

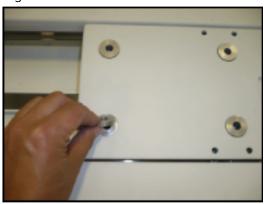


Fig. 28

Varian Exact® Couch Base

3. Place the kVue on to the Exact® couch base with the 4 rear holes of the kVue aligning with the 4 rear holes in the couch base.

! NOTE! The kVue weighs 45 kg (100 lbs). At least 2 people should be involved in lifting of kVue. DO NOT hold kVue by the support beams. Use side rails to carry.

4. Secure kVue to the Exact® couch base using (4) $\frac{3}{6}$ -16 x 4.5" (102 mm) screws provided. The front 2 bolts will be $\frac{3}{6}$ -16 x 5" (114 mm). Torque the 6 screws to 20–30 ft-lbs (34–40 N-m) (Fig. 29).

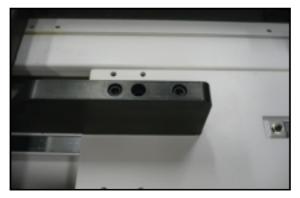


Fig. 29

5. Once the frame is installed, check the levelness. If the frame is not level, remove the frame and add peelable shims as necessary until the couch top is level (Fig. 30).

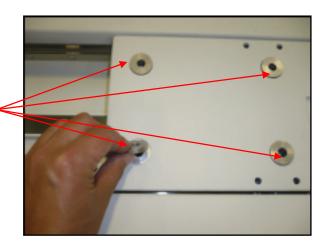


Fig. 30

Shims .



- 6. The back panel should now be installed onto the kVue, using the same 6 screws that were removed in Step 1.
- ! NOTE! When installing the back panel, be sure to place the front end over the 2 locating pins.
- ! NOTE! Two smaller screws go in the holes closest to the OneTouch Latch.
- 7. Insert the desired kVue Insert as instructed in the User's Manual.
- 8. Check one last time for levelness.
- ! NOTE! Be sure to zero the couch for calibration.
- 9. Place native language, 2" x 4" CAUTION label, to the right of 2" x 4" current CAUTION label where appropriate. (Fig. 31).

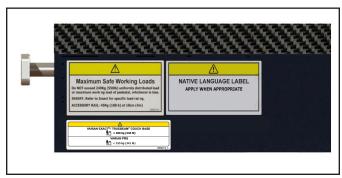


Fig. 31

10. Place 4" x 1.125" CAUTION label onto the back of the kVue under current 2" x 4" CAUTION label (Fig. 32).

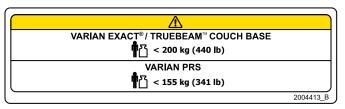
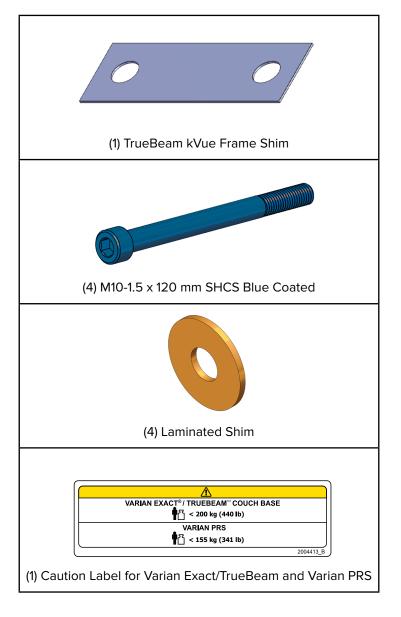


Fig. 32

Varian TrueBeam[™] Couch Base INSTALLATION MANUAL

PARTS PROVIDED



TOOLS REQUIRED (not provided):

- #2 Phillips head screwdriver
- 8 mm Allen wrench
- Level
- 6" Calipers
- · Tape Measure
- · Torque Drive

1. Before installation of the kVue, remove the back panel, by removing the 6 screws (Fig 33). Place screws aside for later use.

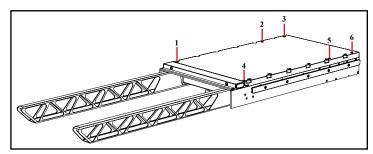


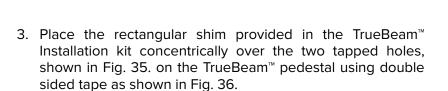
Fig. 33

2. Remove existing couch top from the TrueBeam™ pedestal. The Varian TrueBeam™ pedestal should now look like that in Fig. 34.

! NOTE! Consult with manufacturer's installation manual for removal instructions.



Fig. 34



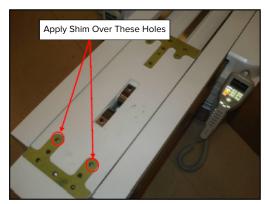


Fig. 35



Fig. 36

4. Install the Pinch Point Cover onto the kVue according to the Pinch Point Cover Installation Manual located on page 29.

Holes marked "T"

Fig. 37

5. Place the kVue on to the TrueBeam pedestal with the two rear holes marked "T" of the kVue, shown in Fig. 37, aligning with the two rear holes which have the shim installed from Step 3 as shown in Fig. 38.

! NOTE! The kVue weighs 45 kg (100 lbs). At least 2 people should be involved in lifting of the kVue. DO NOT hold kVue by the support beams. Use side rails to carry.



Fig. 38

6. Secure the kVue to the TrueBeam pedestal using the (4) M10-1.5 x 120 mm Socket Head Cap Screws provided, installing them into the holes labeled "T" on the couch top as shown in Fig. 39 and Fig. 40. Torque the 4 SHCS to 20–30 ft-lbs (34–40 N-m).

! NOTE! Ensure the kVue is straight on the pedestal before securing the Socket Head Cap Screws.

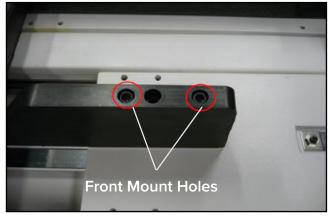


Fig. 39

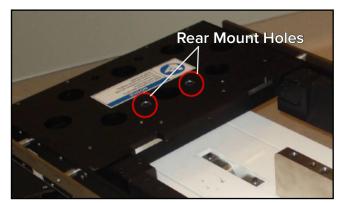


Fig. 40

7. Once the frame is installed, check the levelness. If the frame is not level, remove the frame and add peelable shims around holes used for installation on pedestal as necessary until the couch top is level.



- 8. The back panel should now be installed onto the kVue, using the same 6 screws that were removed in Step 1.
- ! NOTE! When installing the back panel, be sure to place the front end over the 2 locating pins.
- ! NOTE! Two smaller screws go in the holes closest to the OneTouch Latch.
- 9. Insert the desired kVue Insert as instructed in the User's Manual.
- 10. Check one last time for levelness.
- ! NOTE! Be sure to zero the couch for calibration. Refer to Fig. 41 for Final Assembly.



Fig. 4

11. Place native language, 2" x 4" CAUTION label, to the right of 2" x 4" current CAUTION label where appropriate. Refer to Fig. 42.

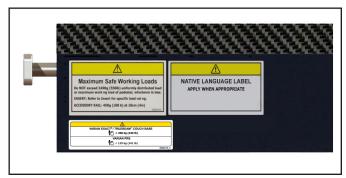


Fig. 42

12. Place 4" x 1.125" CAUTION label onto the back of the kVue under current 2" x 4" CAUTION label (Fig. 43).

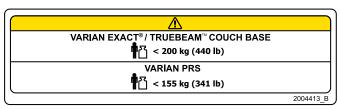
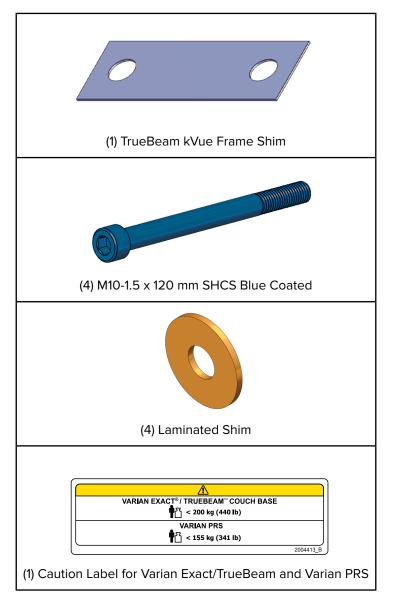


Fig. 43

Varian Pitch & Roll System INSTALLATION MANUAL

PARTS PROVIDED



TOOLS REQUIRED (not provided):

- #2 Phillips Head Screwdriver
- 8 mm Allen Wrench
- Level
- 6" Calipers
- · Tape Measure
- · Torque Drive

- 1. Refer to Varian Document P/N RIG-HT-LS for complete installation instructions.
- 2. Place native language, 2" x 4" CAUTION label, to the right of 2" x 4" current CAUTION label where appropriate. Refer to Fig. 43.

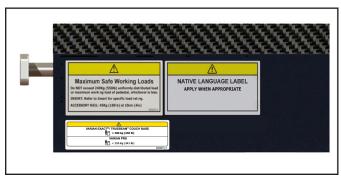


Fig. 43

3. Place 4" x 1.125" CAUTION label onto the back of the kVue under current 2" x 4" CAUTION label (Fig. 44).

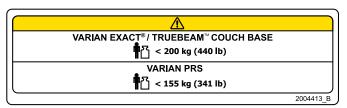


Fig. 44

kVue[™] on All Adapter Plates INSTALLATION MANUAL

TOOLS REQUIRED

TOOLS REQUIRED BUT NOT PROVIDED

- 1. #2 Phillips Head Screwdriver
- 2. 3/8" Allen Wrench
- 3. 3/16" Allen Wrench
- 4. 5/16" Allen Wrench
- 5. Level
- 6. 6" Calipers
- 7. Tape Measure

! NOTE! Pictures shown depict the kVue as installed on the Elekta Precise® Couch Base. The Interface Plate for all models provides the 6 bolt pattern used on the Exact® Couch Base. When installing on a Exact® Couch Base, no Interface Plate will be present. The kVue™ is mounted directly to the Exact® Couch Base.

- 1. Before installing kVue onto the adapter plate, be sure to remove the back panel by removing 6 screws.
- 2. Place the level on the Interface Plate. Check for levelness in multiple locations. If the Interface Plate is not level, shims will be required later.
- 3. Place the 4 brass shims concentrically over the 4 rear tapped holes in the Interface Plate (Fig. 46).

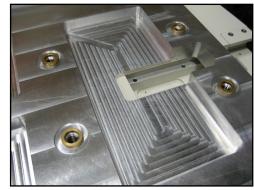


Fig. 46

4. Place the kVue on to the Exact® couch base with the 4 rear holes of the kVue aligning with the 4 rear holes in the couch base.

! NOTE! The kVue weighs 100 lbs. (45 kg). At least 2 people should be involved in lifting of kVue. DO NOT hold kVue by the support beams. Use side rails to carry.

5. Secure kVue to the Interface Plate using (6) %-16 x 4" (101 mm) screws provided. Torque the 6 screws to 20–30 ft-lbs (34–40 N-m) (Fig. 47).

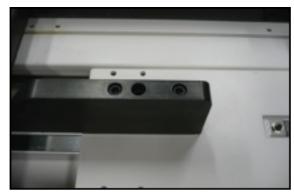


Fig. 47

- 6. Once the frame is installed, check for levelness. If the frame is not level, remove the frame and place the shims provided between the frame and the Interface Plate or couch base. Repeat until level.
- 7. The back panel should now be installed onto the kVue, using the same 6 screws that were removed in Step 1.

! NOTE! When installing the back panel, be sure to place the front end over the 2 locating pins.

- 8. Insert the desired kVue Insert as instructed in the User's Manual.
- 9. Check one last time for levelness.

! NOTE! Be sure to zero the couch for calibration if replacing an existing top.

10. Place native language 2" x 4" CAUTION label to the right of 2" x 4" current CAUTION label where appropriate (Fig. 48).



Fig. 48



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