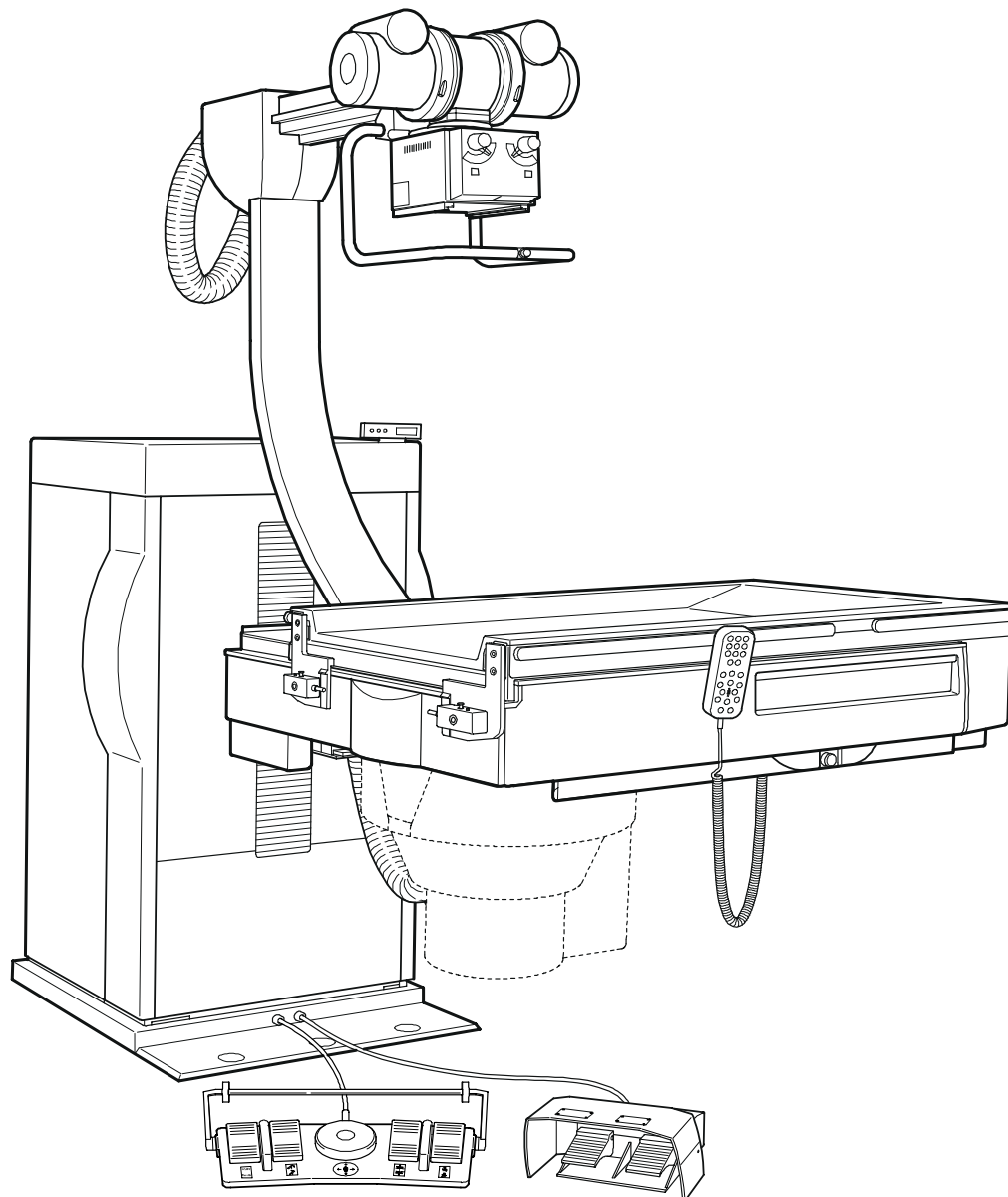


Operating Instructions Uromat 3000



CE 0125

Initial version: English

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IMPORTANT NOTE:

Proper use of this product requires that operating personnel have knowledge of the **OPERATING INSTRUCTIONS**; these must be carefully studied prior to starting up the equipment.

This radiographic unit may be operated only by persons who have the required technical understanding of radiation safety or an adequate knowledge of radiation safety and who have been instructed in the use of the radiographic unit.

The operator is always responsible for maintaining regulations that apply for operation of the radiographic unit.

SAFETY-TECHNICAL REMARKS:

Regulations

If legally specified rules exist for operation of the radiographic equipment, it is the obligation of the user to observe them.

In the interest of safety for the patient, for operating personnel and for third parties, the checks that are intended to maintain the operational safety and functionality of the product must be performed in intervals of 12 months in accordance with the maintenance instructions.

We request that you contact your customer service organisation regarding this performance.

If national regulations or guidelines require that these checks be observed in shorter intervals, it is absolutely necessary that they be observed .

Modifications and expansions of the product must correspond to legal regulations as well as to generally accepted rules applicable to the technology.

As a manufacturer of radiological equipment, we can assume responsibility for the safety-technical features of the unit only if:

we perform maintenance, repair and modification ourselves or performance is by agents that we have authorised to do this for us, and if components that affect the safety fail, they are replaced by original replacement parts.

If this work is performed by a subcontractor, we recommend that verification of the type and extent of the work, and if applicable, information about any changes to nominal values or of the operating range be requested, along with the date, company name and signature.

Prior to treatment operation, the user must be sure that all safety-relevant devices are functional and that the product is operational.

If the user of the radiographic unit wishes to combine it with other equipment, components or assemblies, and this possibility cannot be seen from the technical data, he must ensure that the safety of the patient as well as of operating personnel is not adversely affected by the intended combination by contacting us as the manufacturer or by consulting a technical expert.

PRODUCT SAFETY

Electrical Safety

Only trained maintenance personnel may remove the covers and cover panels on the radiographic unit.

This radiographic unit may be used only in medical rooms that meet the requirements of VDE 0107.

It is designed for a permanent connection to all-pole isolation from line power (ICE 601, Chap. 57.1).

Mechanical Safety

Please make sure that neither the patient nor you can touch moving parts of the radiographic unit or that articles of clothing can become caught in such parts.

Make sure that all objects are removed from the movement range of the radiographic unit.

Crush Zones

The highlighted locations in the following sketch indicate dangerous locations at which the patient or the operator can be injured by crushing or sharp hits.

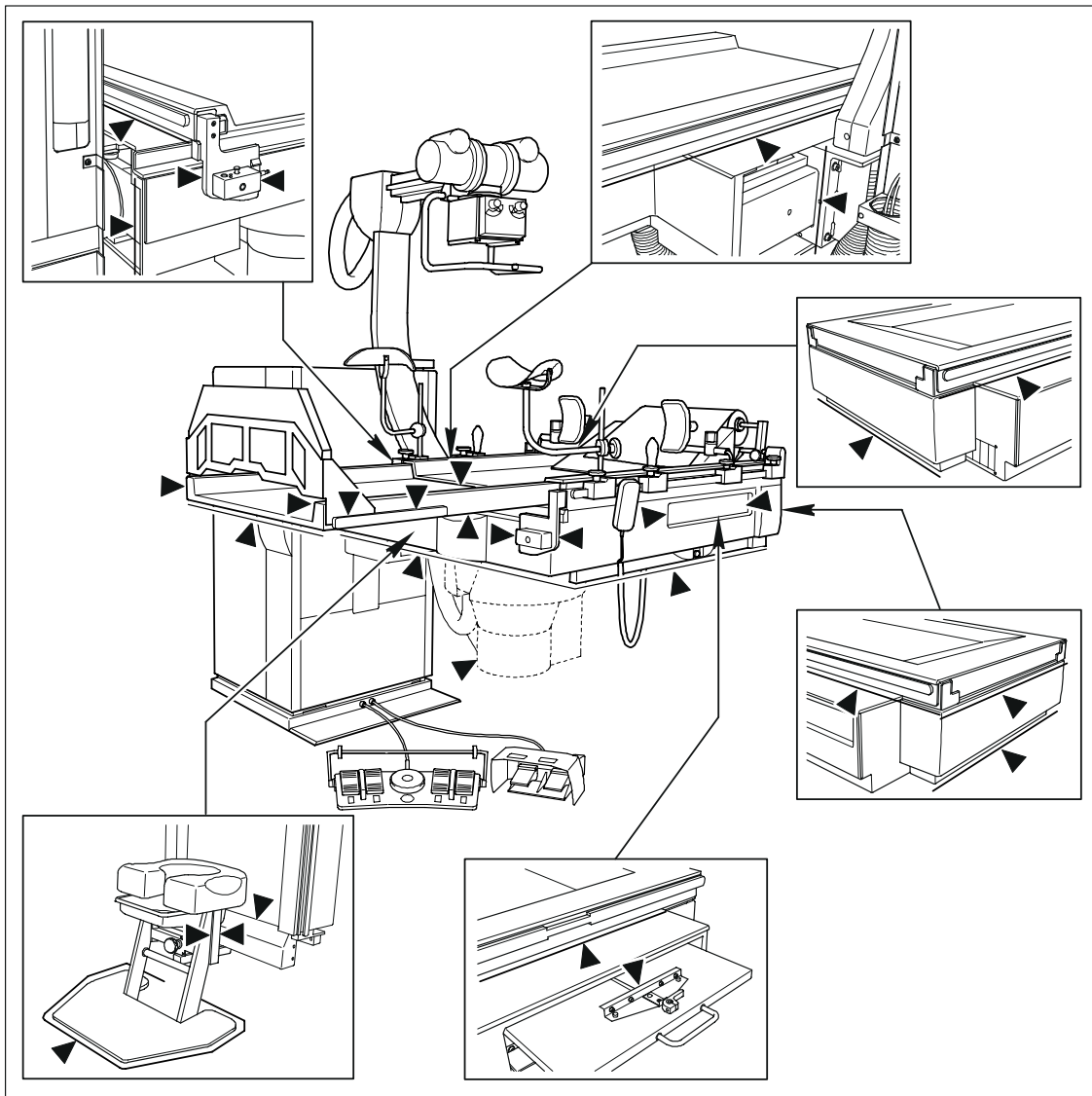
See also the opposite page

Caution:

If the cover panel is blocked during motorised movement of the tube unit support arm, the unit controller indicates **Error E 2**.

Corrective measure:

press and then disengage the emergency stop switch.



Radiation Safety

The unit has a footswitch with which radiation can be triggered.

Exposure can be initiated by the unit footswitch or from the radiation-protected location of the generator.

Regarding this, the general radiation safety regulations must be observed.

We also recommend:

- 1.) Keep the tube current as low as possible.
- 2.) Limit the radiation field as wide as possible.
- 3.) Maintain the max. possible distance.
- 4.) Do not forget radiation safety measures for patients.

Explosion Protection

This unit is not intended for operation in areas where there is a risk of explosion. Only such skin cleaning agents whose gas-air mixture is not flammable may be used.

Electromagnetic Interference (EMI)

The unit meets the EMI specifications of EC Guideline 89/336. The limit values for electrical noise measurement per EN 55011, Group 1, Class B and the requirements for imperviousness to noise per EN 50082-1, levels 2 and 5 are maintained.

Classification per IEC 601-1-1

The unit conforms to the type of protection against electrical shock of protection class 1 and to the level of protection, Type B.

EC Conformance:

This radiological unit meets the basic requirements according to the specifications of EC Guideline 93/42 of the Council for Medical Products per Article 11, Section 3 and to the procedure listed in Appendix II.

The CE symbol applies only for the product without the X-ray components.

Additional information can be obtained on request from:

Hans Pausch
Röntgengerätebau
Qualitätssicherung
Postfach 28 60
D-91016 Erlangen

Fax: ..49 9131 99 24 22

Environmental Conditions for Operation

Ambient temperature range	10° C to 40° C
Relative humidity in the range	20% to 80%
Atmospheric pressure in the range	700 hPa to 1100 hPa

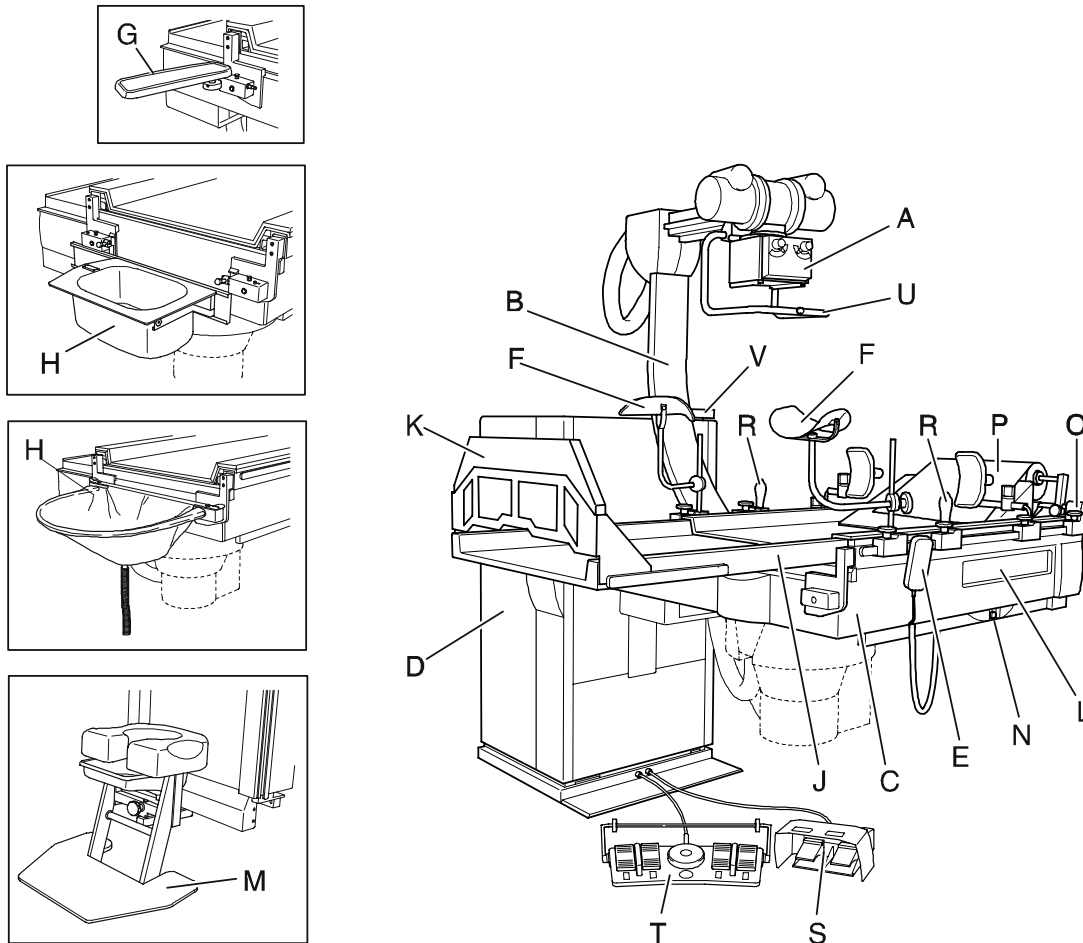
Disposal:

This product is manufactured in accordance with the latest environmental standards. Legal disposal regulations may apply. To avoid hazards to the environment and persons, we request that you contact customer service before taking the product permanently out of operation.

Design Features

- Design

(The illustration shows the right-handed model, the left-handed model is the mirror image)



- A** X-ray tube unit - collimator
- B** Tube unit support arm, moveable
- C** Unit table with four-way tabletop
- D** Unit base
- E** Manual control unit
- F** Leg support
- G** Elbow supports
- H** Flush bowl or rinse bag mount
- J** Table extension
- K** Footrest for table extension
- L** Cassette shaft cover
- M** Micturation seat
- N** Emergency stop switch
- O** Head cushion with mount
- P** Paper roll with holder
- R** Patient handgrips
- S** Footswitch for exposure and fluoroscopy
- T** Multi-function footswitch
- U** Grip handle
- V** Tilt angle indicator/ position memory display / error display

General Remarks

Brief Description

The modern compact design of the Uromat 3000 requires little space and can be installed anywhere in the room to conform to practical requirements.

The electronic components of the unit as well as the vertical drive and the tilt drive for the table unit are located in the unit column, which as the central component, is secured to the concrete floor using 4 expansion bolts.

The height-adjustable patient table can be tilted from the 20° Trendelenburg position to the 88° vertical position, with an automatic stop in the horizontal position. The horizontal position can be adjusted from 122.5 cm to 68 cm.

The tabletop on the patient table has a motorised floating movement, with an automatic stop in the middle position. The size of the tabletop is 76 x 120 cm.

The movement range of the tabletop is 24 cm at both the head end and foot end, and ± 13 cm transversely.

The tabletop has lateral OP rails to mount accessories.

The tabletop can be lifted up and the elevated side parts, together with the table mat, ensure optimum protection against water as well as problem-free cleaning.

Because of the automatic tabletop compensation (optional during installation), the working level remains constant in the examiner's eye level, even when the tabletop is tilted, as long as the vertical limit is not reached.

Very precisely positioned exposures can be made using the built-in cassette Bucky.

The minimum film-skin distance of 60 mm assures the best geometric exposure relationship.

Image intensifiers of up to 40 cm or 16", from well-known manufacturers can be installed.

The image intensifier is mechanically attached to the X-ray tube unit and can be moved longitudinally a max. of 30 cm (depending on the I.I.) by the auxiliary motor.

Activities under fluoroscopic control can be made in the image intensifier mode. Depending on the I.I. model, the minimum achievable table height changes.

The lift, tilt, transverse, and tube system movements are designed for smooth running using an electronic controller, and for soft stop into a position and soft start out of a position.

The park position for the X-ray tube unit makes working easier and allows unrestricted patient access and unrestricted view of the patient.

Unit movements are initiated by the easy-to-position large-surface footswitch or by easily viewed switches in the manual control unit.

The manual control unit is stored in the opening provided for it in the patient table.

Optional Accessories

The **tabletop extension** is inserted into the foot-end openings (with sensing by switches).

The **footrest** can be hooked onto the rungs provided in the tabletop extension.

The **micturation seat** is inserted into the foot-end openings (with sensing by switches).

The **elbow supports** can be inserted into the foot-end holder blocks and can be pivoted into any desired working position.

The stainless steel **flush bowl** or the **rinse bag mount** can be hooked into the holder studs provided.

The **leg supports**, the **arm rests**, the **patient grips**, the **shoulder rests**, the **infusion bottle stand**, the **paper roll holder** as well as the **compression belt** can be installed on the later OP rails.

The Uromat 3000 permits:

- problem-free mounting by the patient onto the table
- easy and comfortable positioning of the patient
- optimum adjustment of the unit table to the preferred working height
- attachment of a wide variety of accessories
- excellent conditions for good image quality
- free positioning of the footswitch in the working area
- optimum operating and working convenience
- easy cleaning

The Uromat 3000 is:

- waterproof against drip and sprayed water from above

Field of Application

The Uromat 3000 is a general-purpose urology unit for radiological, gynecological, as well as urological diagnostics and therapy.

The following applications can be practiced easily:

- Urograms with injection or infusion
- Retrograde pyelography
- Cystoscopy
- Uretography
- Cystoscopy of micturation
- Cystoscopy
- Endoscopy
- Percutaneous nephroscopy
- Transurethral resection
- Urethro-renoscopy

Caution: The above-listed applications are sometimes performed while the patient is anesthetized or in combination with auxiliary equipment which requires the highest degree of attention by the user. In such circumstances, the instructions of the auxiliary equipment must be followed, and appropriate accessories must be used. The tabletop may be tilted a max. of only 30° while the patient is anesthetized.

Setup

Space Requirement

The unit is designed for stationary operation.
The space required is approx. 370 cm X 195 cm
In addition, a minimum spacing of 20 cm must be maintained between the unit column and the wall.

Room Height

The min. room height for the Uromat 3000 is 260 cm.

Power Line Connection

The power line connection must be made over a 20 mA ground fault interrupter installed on-site. The room installation must conform to VDE 0107.
In all countries outside the Federal Republic of Germany, the legally specified national regulations must take precedence.

The unit is designed for single-phase AC voltage with a permanent installation and is equipped for permanent installation using an all-pole isolator from the power source (ICE 601, Chap. 57.1).

It can be connected to the following line voltages without a pretransformer:

Nominal voltage:	1N	115/200/208/230/240 V AC
Nominal current:		13/7,5/7,2/6,5/6,25 A
Nominal frequency:		50/60 Hz
Nominal line power rating:		1500 VA
Heat dissipation:		240 Watt

Water Intake - Waste Water

(with use of the flush bowl or rinse bag)

Water line connection:	1/2"
Waste water line:	1"

AL Equivalency Value

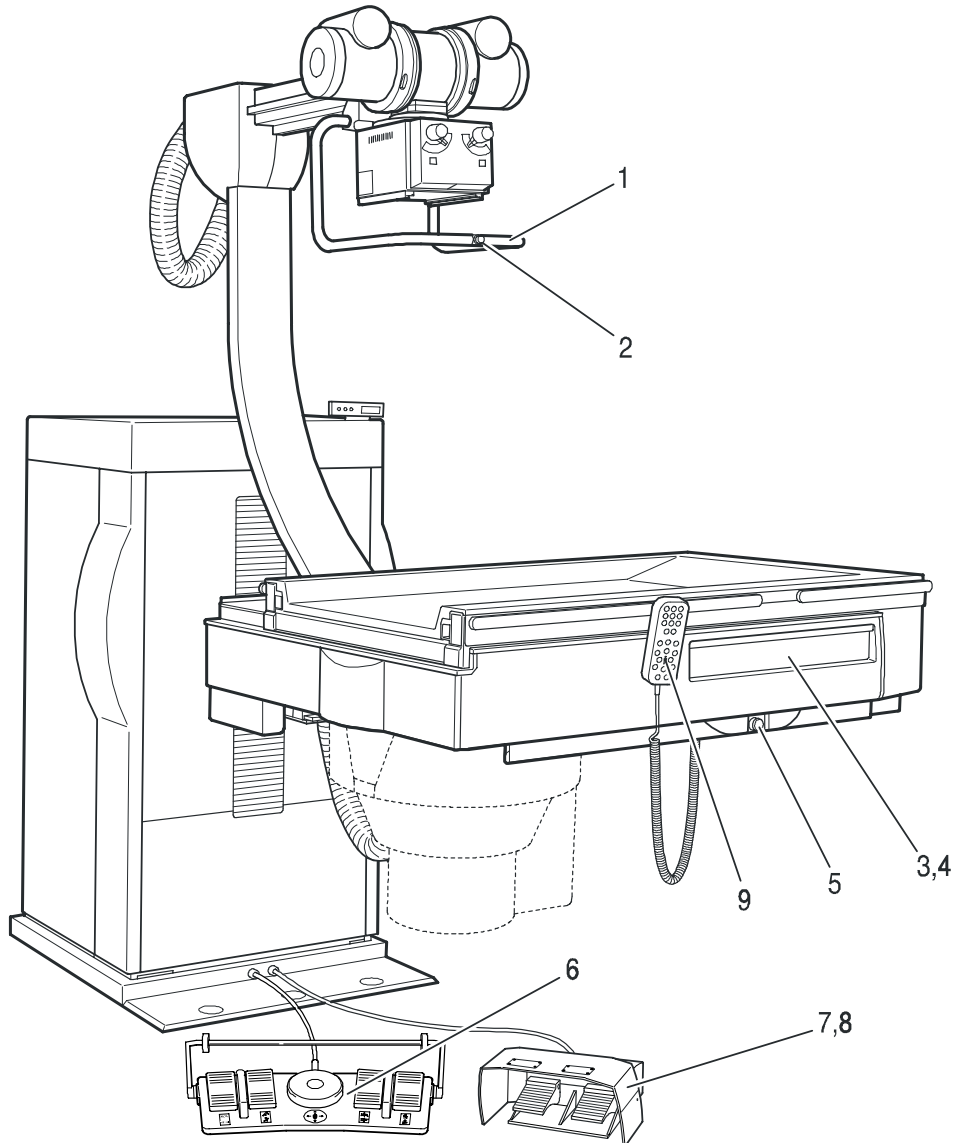
The attenuation equivalency value of the tabletop (patient table) is 1.0 mm.
Measured according to:
DIN EN 60601-1-1-3 at 100 kV and a half value layer of 3.7 mm AL
and FDA 21 CFR § 1020.30 (n) at 100 kV and a half value layer of 2.7 mm AL.

Operating Elements

Location / Unit Movements / Meaning of Symbols - Function

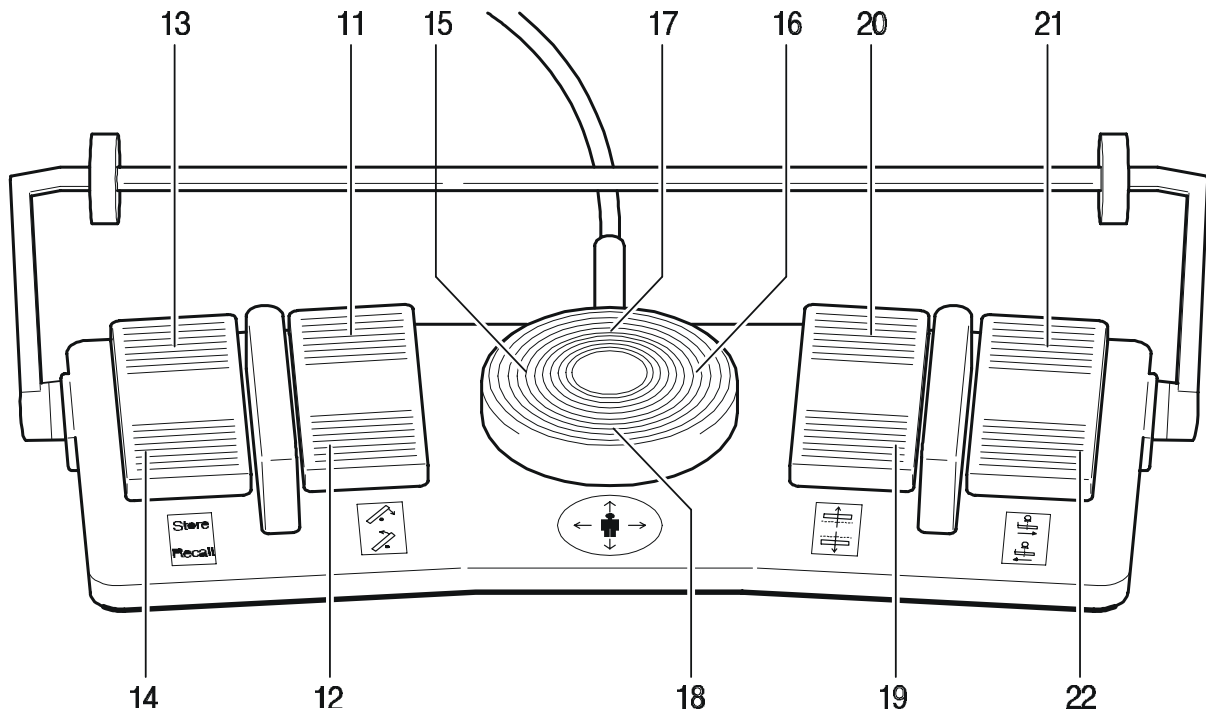
Location

(The illustration shows the right-handed version, the left-handed version is the mirror image)



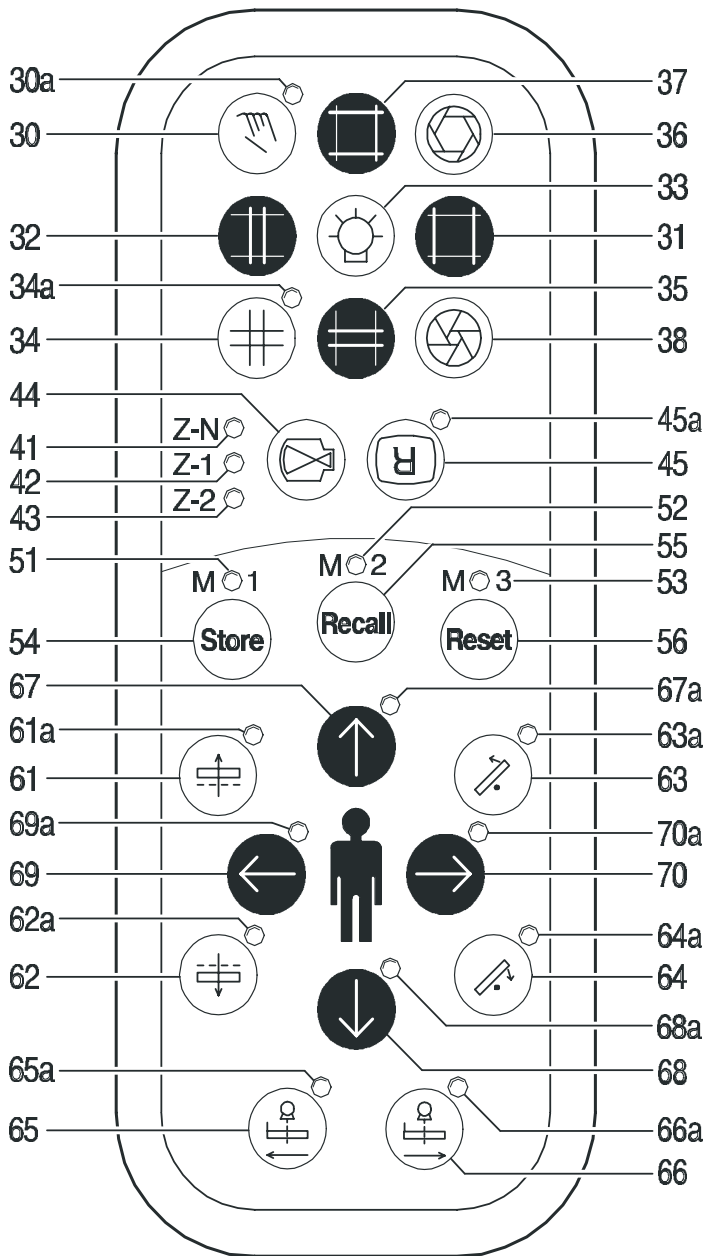
- 1 Handlebar for X-ray tube support arm
- 2 Switch to release the support arm
- 3 Cassette shaft flap
- 4 Cassette Bucky
- 5 Emergency stop switch
- 6 Multi-function footswitch
- 7 Exposure footswitch
- 8 Fluoroscopy footswitch
- 9 Manual control unit

6 Multi-function footswitch



- 11 Footswitch, tilt table down
- 12 Footswitch, tilt table up
- 13 Footswitch, store
- 14 Footswitch, recall
- 15 Footswitch, move tabletop to the left
- 16 Footswitch, move tabletop to the right
- 17 Footswitch, move tabletop to the head end
- 18 Footswitch, move tabletop to the foot end
- 19 Footswitch, lower tabletop
- 20 Footswitch, raise tabletop
- 21 Footswitch, move radiographic system to the head end
- 22 Footswitch, move radiographic system to the foot end

9 Manual control unit



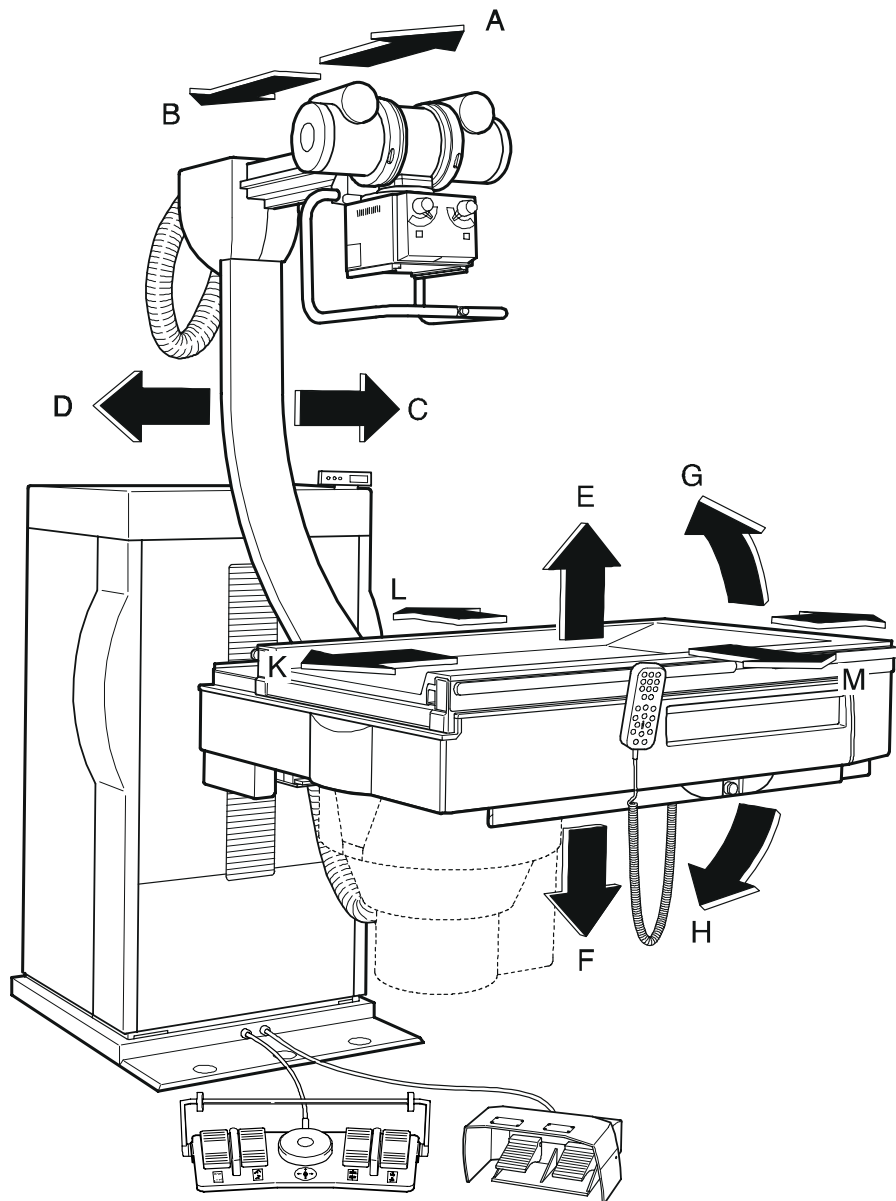
- 30** Collimator manual control
- 30a** LED, collimator man. control
- 31** Open collimator, length
- 32** Close collimator, width
- 33** Switch on light localizer
- 34** Close collimator, both sides
- 34a** Collimator closed
- 35** Close collimator, length
- 36** Open iris diaphragm
- 37** Open collimator, width
- 38** Close iris diaphragm

- 41** LED, zoom step off
- 42** LED, zoom step one
- 43** LED, zoom step two
- 44** Zoom step selector
- 45** Invert image button
- 45a** LED, image inversion

- 51** LED, memory location 1
- 52** LED, memory location 2
- 53** LED, memory location 3
- 54** Store button
- 55** Recall button
- 56** Reset button
- 61** Raise table
- 61a** LED, raise table limit
- 62** Lower table
- 62a** LED, lower table limit
- 63** Tilt up table
- 63a** LED, tilt up table limit
- 64** Tilt table down
- 64a** LED, tilt down table limit
- 65** Move X-ray system, foot end
- 65a** LED, end of X-ray sys., foot.
- 66** Move X-ray sys. to head end
- 66a** LED, end of X-ray sys., head.
- 67** Move tabletop to head end
- 67a** LED, end of tabletop, head.
- 68** Move tabletop to foot end
- 68a** LED, end, tabletop, foot.
- 69** Move tabletop to left
- 69a** LED, end, tabletop, left
- 70** Move tabletop to right

Unit Movements

(The illustration shows the right-handed version, the left-handed version is the mirror image)



- A** X-ray tube unit support arm, working position
- B** X-ray tube unit support arm, park position
- C** X-ray system, head end
- D** X-ray system, foot end
- E** Raise table
- F** Lower table
- G** Tilt up table
- H** Tilt down table
- I** Move tabletop to head end
- K** Move tabletop to foot end
- L** Move tabletop left, toward stand column
- M** Move tabletop right, away from stand column

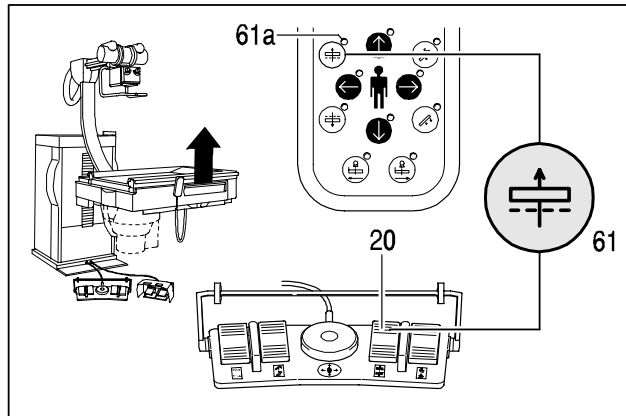
Meaning of Symbols - Function

Raise Table

Press the button **61** on the manual control unit or on the footswitch **20** and release when the desired position is reached.

Movement switches off automatically when the max. table height is reached and LED **61a** lights up yellow.

If LED **61a** lights up red, an error has occurred in the vertical drive.

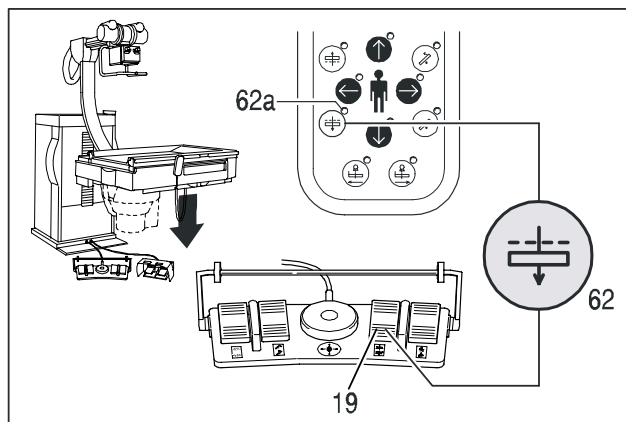


Lower Table

Press the button **62** on the manual control unit or on the footswitch **19** and release when the desired position is reached.

Movement switches off automatically at the min. table height, and the LED **62a** lights up yellow.

If LED **62a** lights up red, a malfunction has occurred in the vertical drive.



Tilt Table Up

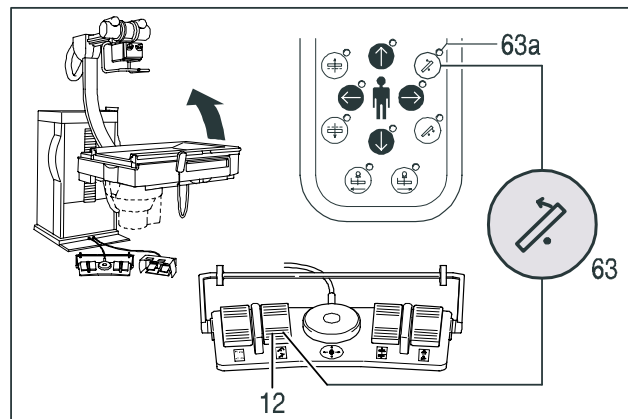
Press the button **63** on the manual control unit or on the footswitch **12** and release when the desired position is reached.

Tilting up movement switches off automatically in the end position and LED **63a** lights up yellow.

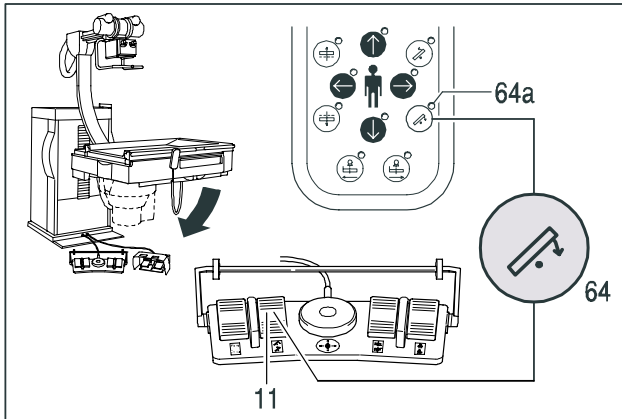
Tilting down movement switches off automatically when the horizontal position is reached and LED's **64a** and **63a** light up green.

Movement is also switched off if the table exceeds the required min. space to the floor.

If LED **63a** lights up red, an error has occurred in the tilt drive.



Tilt Table Down



Press the button **64** on the manual control unit or on the footswitch **11** and release when the desired position is reached.

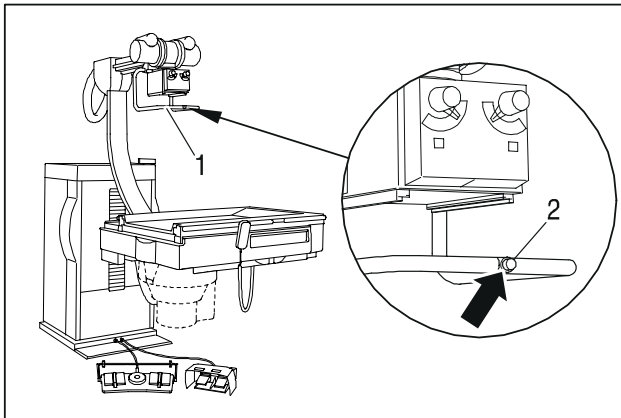
Tilting down movement switches off automatically in the end position and LED **64a** lights up yellow.

Tilting is switched off automatically in the horizontal position and LED's **64a** and **63a** light up green.

If the table exceeds the minimum required floor spacing, movement is also switched off.

If LED **64a** lights up red, an error has occurred in the tilt drive.

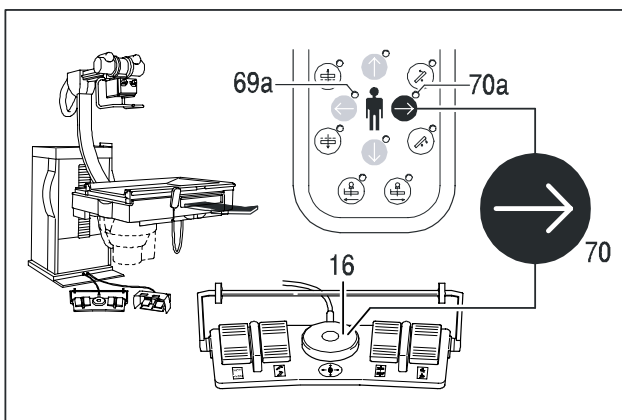
Tube Unit Support Arm, Park / Exposure Position



Press switch **2** on control arm **1** and move the tube unit - collimator into the park or exposure position.

Release of fluoroscopy or exposure is **not** possible while in the park position.

Move Tabletop to the Right



Press switch **70** on the manual control unit or footswitch **16** and release it when in the desired position.

Motorised movement switches off automatically when in the end position and LED **70a** lights up yellow.

In the middle position, LED's **70a** and **69a** both light up green.

To continue movement: release foot-switch **16** or switch **70** and press it again.

If LED **70a** lights up red, an error has occurred in the transverse drive.

Move Tabletop to the Left

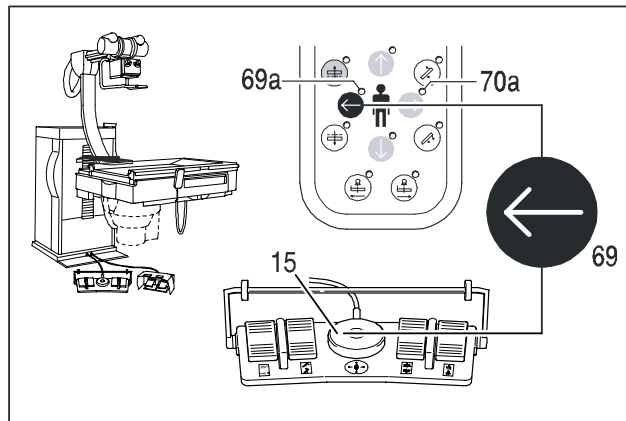
Press switch **69** on the manual control unit or footswitch **15** and release it when in the desired position.

Motorised movement switches off automatically when in the end position and LED **69a** lights up yellow.

In the middle position, LED's **70a** and **69a** both light up green.

To continue movement: release footswitch **15** or switch **69** and press it again.

If LED **69a** lights up red, an error has occurred in the transverse drive.



Move Tabletop to the Head End

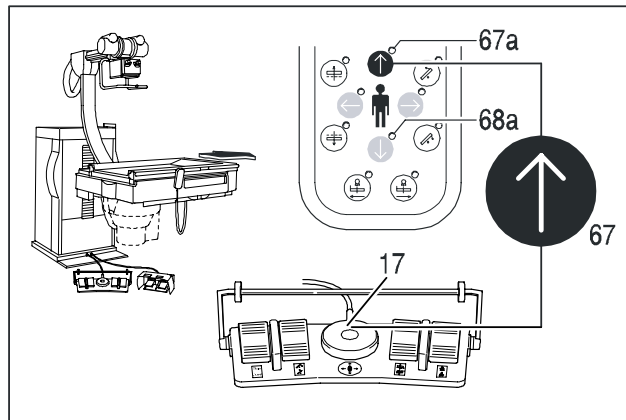
Press switch **67** on the manual control unit or footswitch **17** and release it in the desired location.

Movement is automatically switched off when in the end position and LED **67a** lights up yellow.

When in the middle position, LED's **67a** and **68a** both light up green.

To continue movement: release footswitch **17** or switch **67** and press it again.

If LED **67a** lights up red, an error has occurred in the longitudinal drive.



Move Tabletop to the Foot End

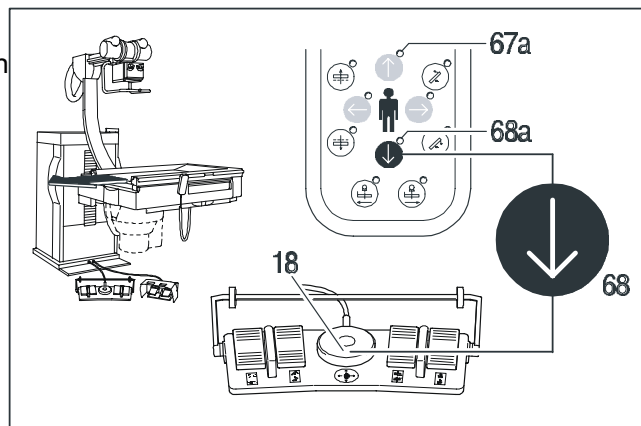
Press switch **68** on the manual control unit or footswitch **18** and release it when in the desired position.

Movement is switched off automatically in the end position and LED **68a** lights up yellow.

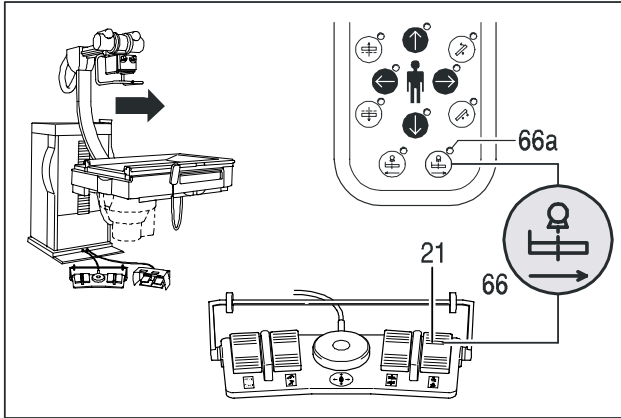
When the middle position is reached, LED's **67a** and **68a** both light up green.

To continue movement: release footswitch **18** or switch **68** and press it again.

If LED **68a** lights up red, an error has occurred in the longitudinal drive.



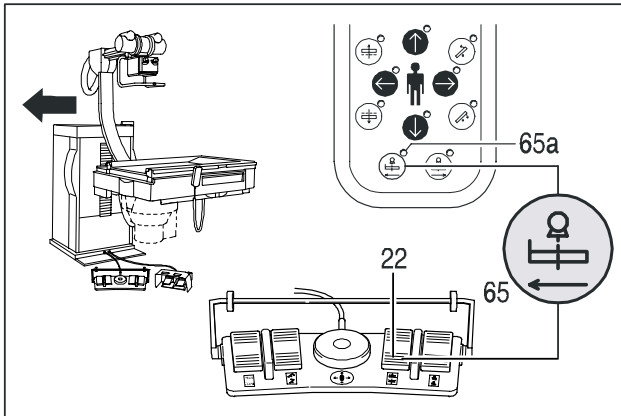
Move Tube Unit System to the Head End



Press switch **66** on the manual control unit or footswitch **21** and release it when in the desired position. Movement is switched off automatically in the end position and LED **66a** lights up yellow.

If LED **66a** or **65a** blinks, an error has occurred in the system drive; if both are on at the same time, the system is in the exposure position.

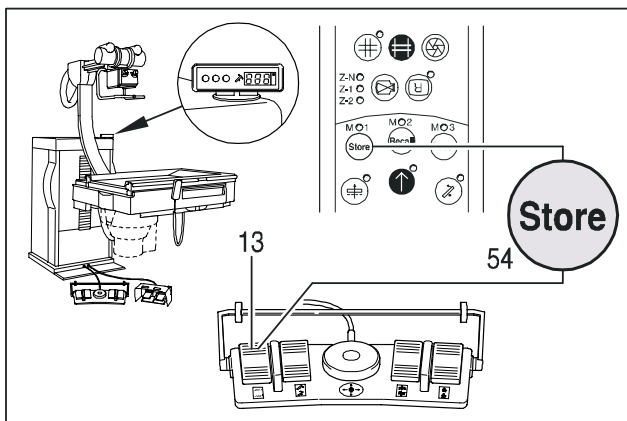
Move Tube Unit System to the Foot End



Press switch **65** on the manual control unit or footswitch **22** and release it when in the desired position. Movement is switched off automatically in the end position and LED **65a** lights up yellow.

If LED **66a** or **65a** blinks, an error has occurred in the system drive; if both are on at the same time, the system is in the exposure position.

Position Memory

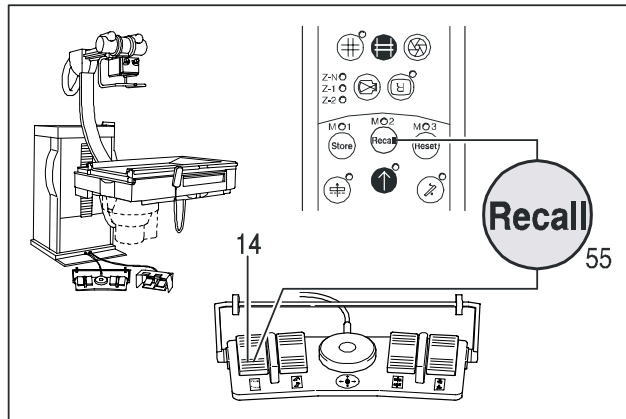


Save the three memory positions that are available: longitudinal table position, transverse table position, table height, table tilt angle as well as tube unit position at the same time.

To save the positions, press switch **54** on the manual control unit or footswitch **13** (the LED blinks yellow) until the LED lights up green after 2 seconds. When the **4th** position is saved, the **1st** position is overwritten.

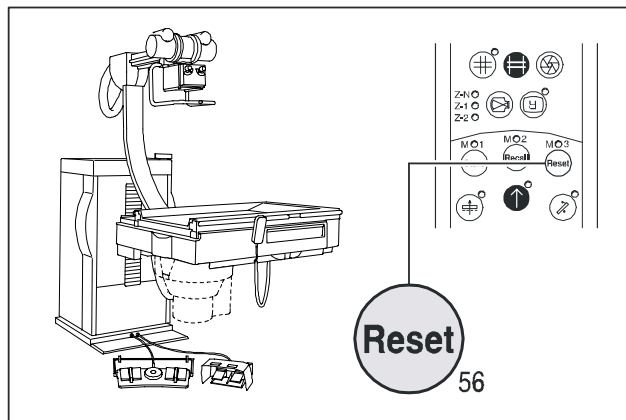
Recall the Position Memory and Move into Position

Press the recall switch **55** on the manual control unit or footswitch **14** until the memory location recalled is reached (the corresponding LED blinks yellow) and after approx. 2 seconds, all movement axes move to their stored positions. After reaching all end positions, the corresponding LED lights up green.



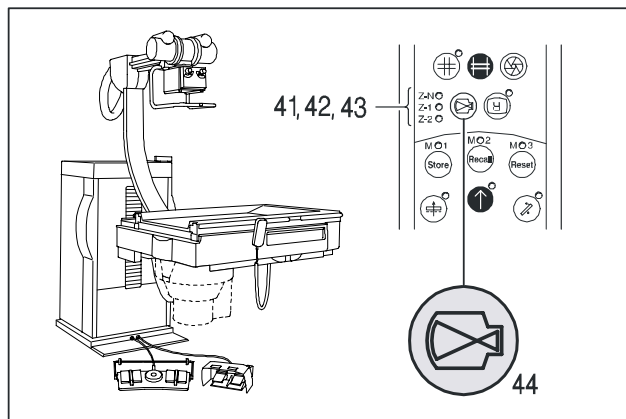
Clear the Position Memory

Press the reset switch **56** on the manual control unit. All memory locations will be cleared.

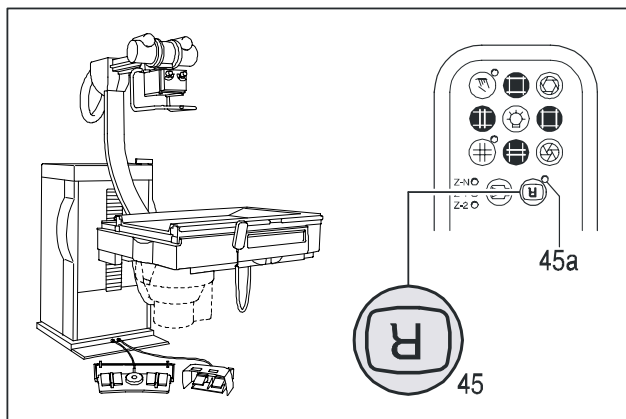


Change I.I. Image Size

Press the zoom selection switch **44** on the manual control unit as many times as required until the corresponding LED **41 - 43** lights up green.



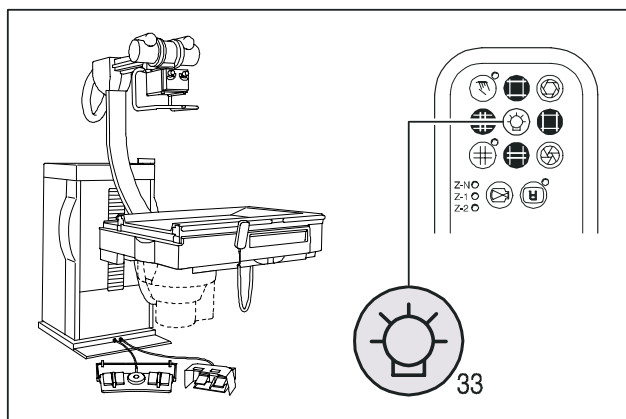
Activate / Deactivate I.I. Image Inversion



Press the image inversion switch **45** on the manual control unit until LED **44a** lights up.

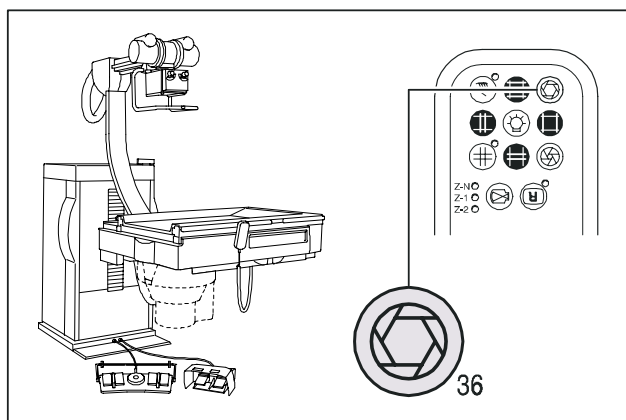
To deactivate, press the image inversion switch **45** again until the green LED **44a** goes off.

Switch on Light Localizer



Press switch **33** on the manual control unit.

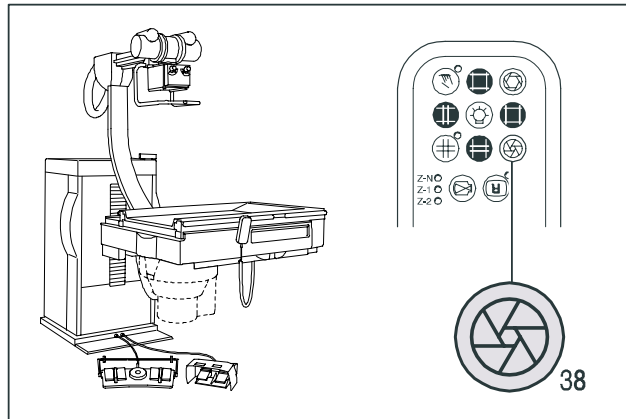
Open Iris Diaphragm



Press switch **36** on the manual control unit and when the desired iris opening is reached, release it.

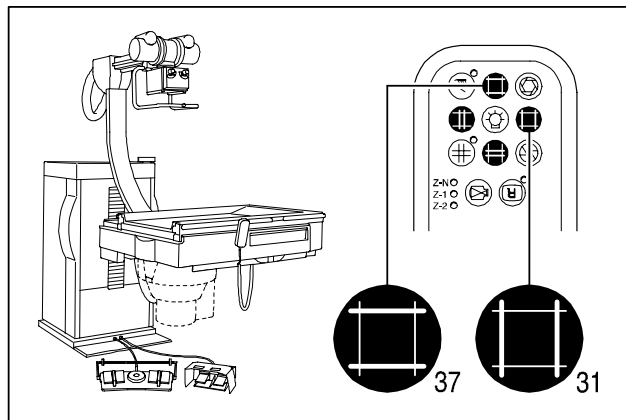
Close Iris Diaphragm

Press switch **38** on the manual control unit and release it when the desired iris opening is reached.



Open Collimator

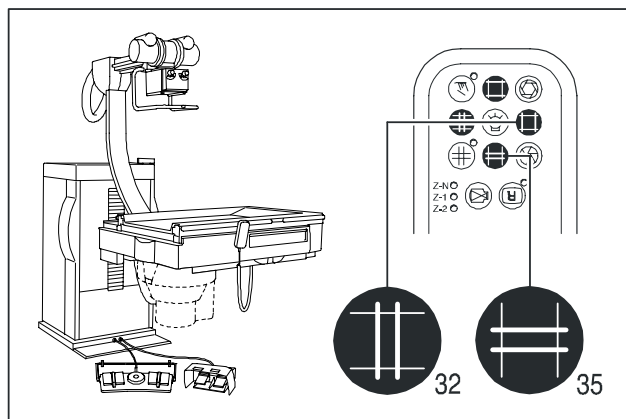
Press switch **31** or **37** on the manual control unit and release it when the desired collimator opening is reached.



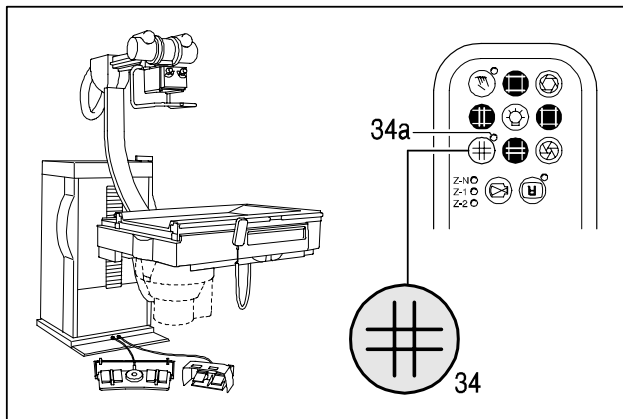
Close Collimator

Press switch **32** or **35** on the manual control unit and release it when the desired collimator opening is reached.

If the collimator is closed, LED **34a** lights up green.



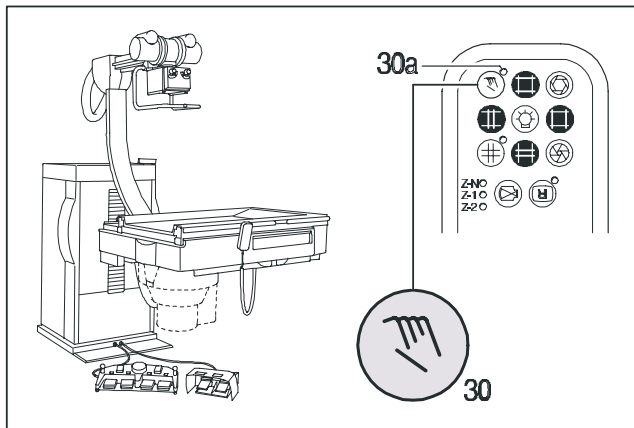
Close both sides of the Collimator



Press switch **34** on the manual control unit and release it when the desired collimator opening is reached.

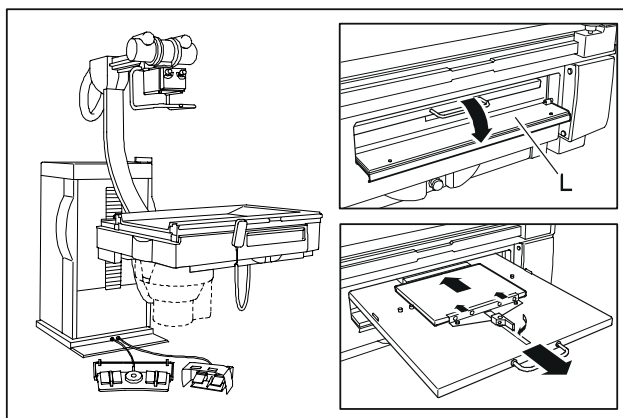
If the collimator is closed, LED **34a** lights up green.

Switch Off the Automatic Collimator



Press switch **30** on the manual control unit; LED **30a** lights up green.

Insert - Remove the Cassette



Open the cassette shaft cover **L** and pull out the cassette tray to the stop. Insert the cassette between the tension jaws into the desired position and secure it in place with the latching lever.

Insert the cassette tray to the stop and close the cassette shaft cover again.

Remove the cassette in the reverse order of above.

Setting the Working Position for Cassette Exposure

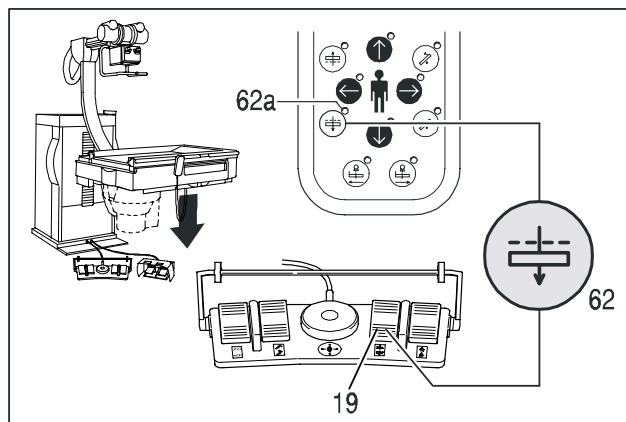
Caution:

If there is a dangerous situation, press the emergency stop switch. The switch locks in place and all motorised movements are interrupted.

After eliminating the dangerous situation, disengage the switch by turning the latch ring to the right.

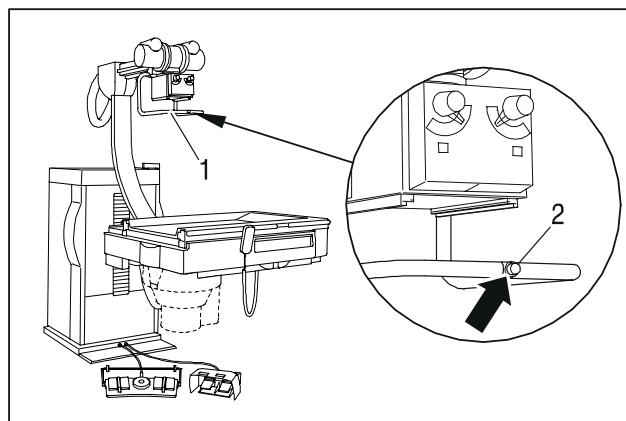
Lower Table

Press switch **62** on the manual control unit or footswitch **19** and release it when in the desired position. When at the min. table height, the movement is switched off automatically and LED **62a** lights up yellow.

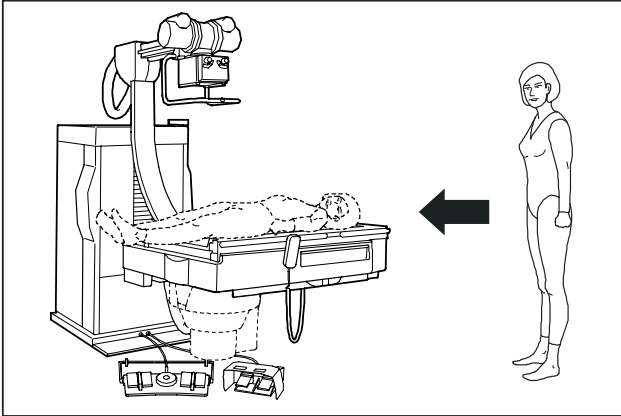


Park X-ray Tube Unit

Press switch **2** on the control arm **1** and move the tube unit - collimator into the park position.



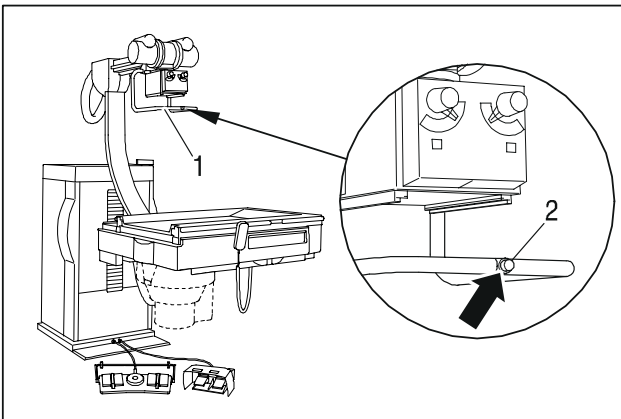
Positioning the Patient on the Table



Lay the patient on the tabletop.
Instruct the patient **not** to grab onto the tabletop.

Install the accessories required for the examination or the exposure.

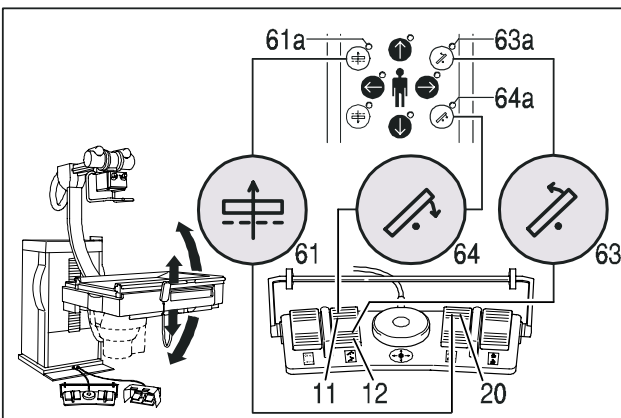
Moving the X-ray Tube Unit into the Exposure Position



Press switch **2** on the control arm **1** and move the tube unit - collimator into the exposure position.

Attention:
The X-ray collimator unit must be caught in operation.

Moving the Table into the Working Position

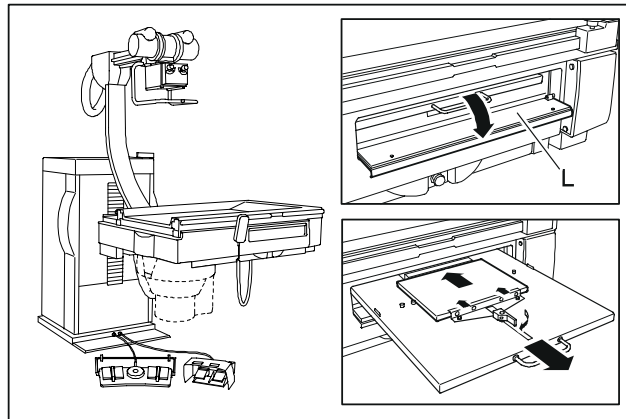


Press the footswitch **20** or switch **61** and release it when the table is in the desired position.

Press footswitch **11** or **12** or switch **63** or **64** and release it when the table is at the desired tilt angle.

Inserting the Cassette

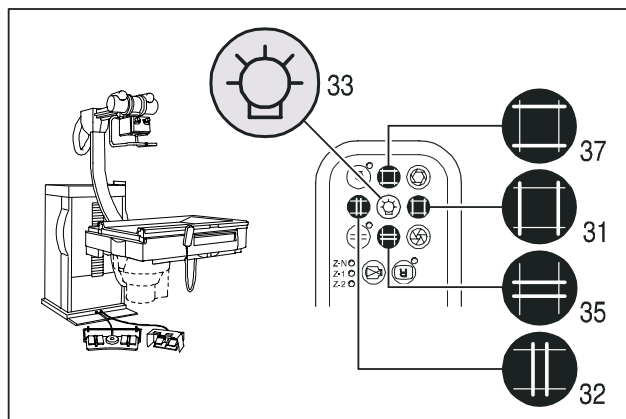
Open the cassette shaft cover **L** and pull the cassette tray out to the stop. Insert the cassette between the tension jaws in the desired position and secure it in place with the latching lever. Insert the cassette tray all the way to stop and close the cassette shaft cover again.



Centering the Exposure Subject

Switch on the light localizer in the collimator with the switch **33** and set the cassette size with switches **31** and **37** or **32** and **35** per the scale.

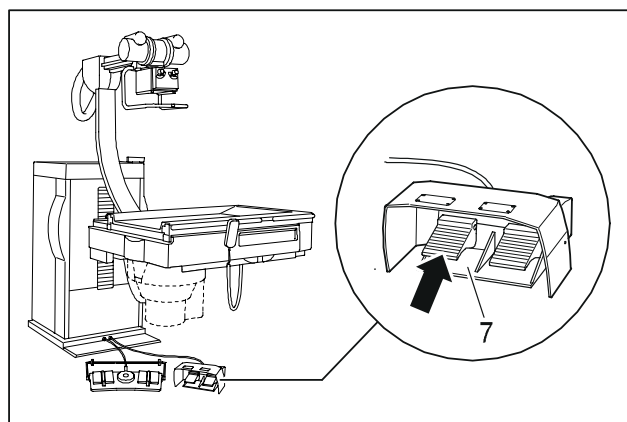
Move the exposure subject into the beam path by moving the tabletop longitudinally and transversely.



Making an Exposure

Set or check the exposure data at the generator. Triggering the X-ray exposure is possible at both the generator and at the footswitch **7**.

Check for readiness to make the exposure. Instruct the patient: **Take a breath and hold it!** Press the exposure switch and release it only when the exposure is completed.

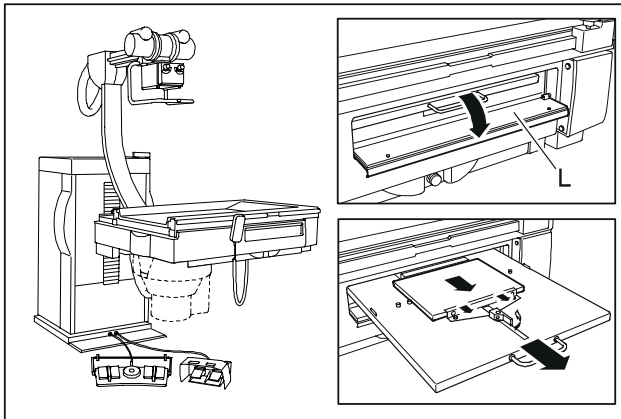




Note

Do not forget radiation protection measures for the patient (lead rubber apron, gonad protector, etc.)!

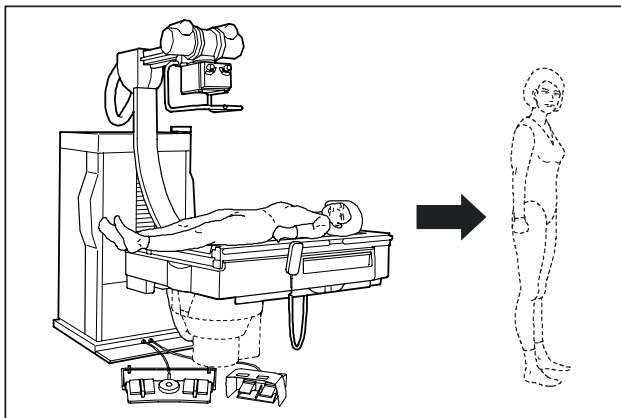
Removing the Cassette



Open the cassette shaft cover **L** and pull the cassette tray all the way out to stop. Release the cassette by turning the latching lever and remove the cassette.

Insert the cassette tray all the way to the stop and close the cassette shaft cover again.

End of the Examination



If applicable, move the table into the horizontal position and lower the table.

Press switch **2** on the control arm **1** and move the tube unit - collimator into the park position.

Remove any accessories that are not needed or that may be in the way when removing the patient from the table.

Have the patient dismount the table.

Settings for I.I. Fluoroscopy / Cassette Exposure

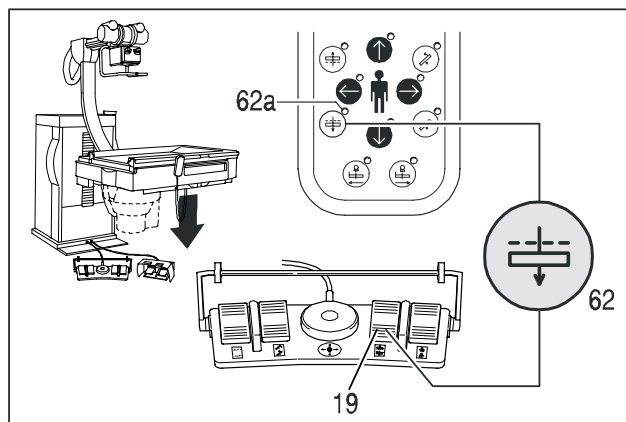
Caution:

If there is a dangerous situation, press the emergency stop switch. The switch locks into position and all motorised movements are interrupted.

After eliminating the dangerous situation, the switch can be released by turning the release ring to the right.

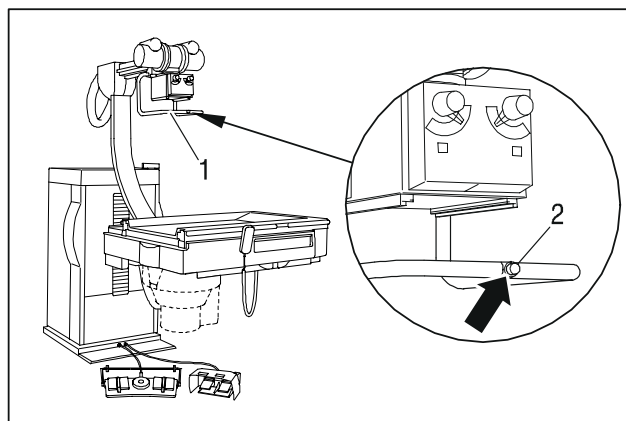
Lowering the Table

Press switch **62** on the manual control unit or footswitch **19** and release it when in the desired position. Movement is switched off automatically at the min. table height and LED **62a** lights up yellow.

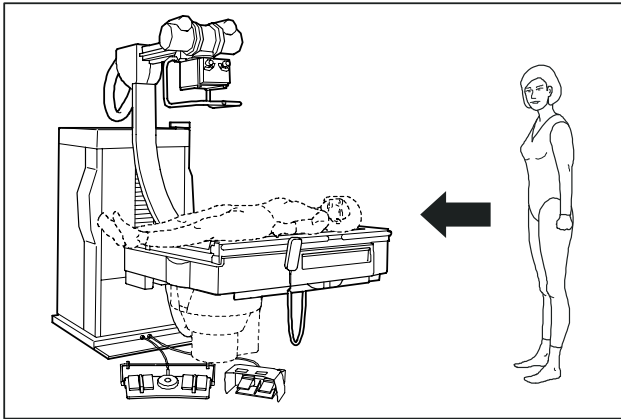


Parking the X-ray Tube Unit

Press switch **2** on the control arm **1** and move the tube unit - collimator into the park position.



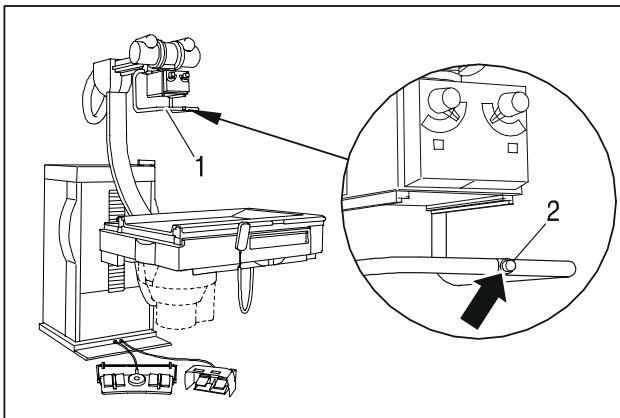
Placing the Patient on the Table



Lay the patient on the table.
Instruct the patient **not** to grab onto the tabletop.

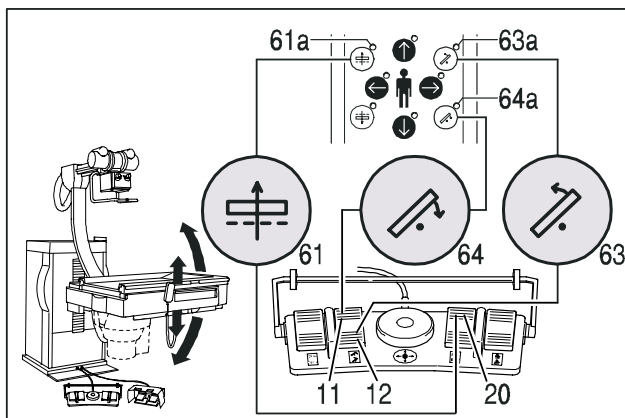
Install the accessories for the examination or the exposure.

Moving the X-ray Tube Unit into the Exposure Position



Press switch **2** on the control arm **1** and pull the tube unit - collimator into the exposure position.

Moving the Table into the Working Position

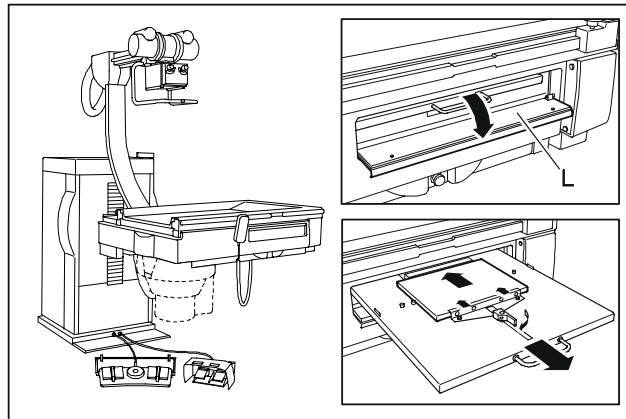


Press footswitch **20** or switch **61** and release it when the table is in the desired height.

Press footswitch **11** or **12** or switch **63** or **64** and release it when the table is at the desired tilt angle.

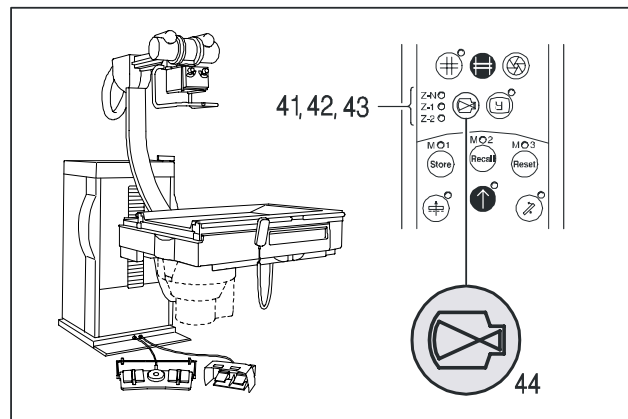
Inserting the Cassette

Open the cassette shaft cover **L** and pull the cassette tray out until it reaches stop. Insert the cassette between the gripper jaws in the desired position and engage it in place with the latch lever. Insert the cassette tray until it reaches the stop and close the cassette shaft cover again.



Selecting Image Intensifier Format - Image Size

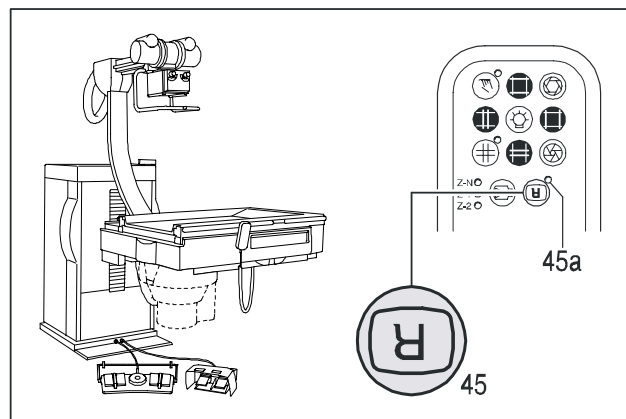
Press the zoom switch **44** on the manual control unit as often as required until the corresponding LED **41 - 43** goes on.



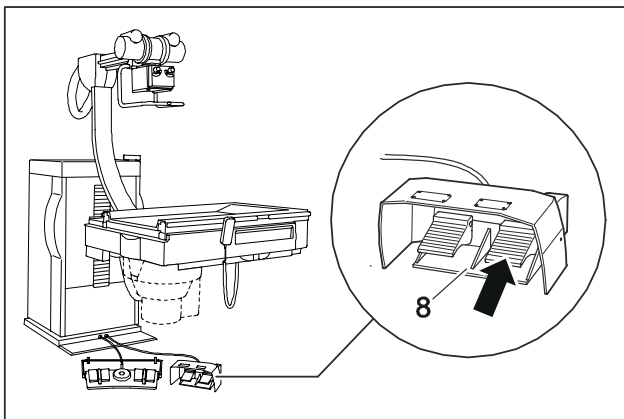
Setting I.I. Image Inversion

Press the image inversion switch **45** on the manual control unit until LED **44a** goes on.

To deactivate this, press the image inversion switch **45** again until LED **44a** goes off.

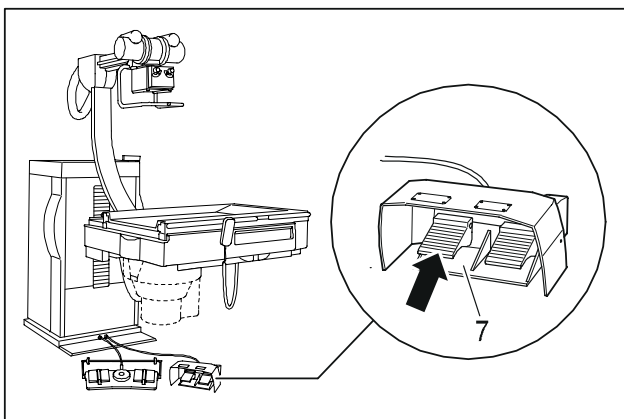


I.I. Fluoroscopy



Set the fluoroscopy data at the generator.
Press the fluoro footswitch **8**.
If needed, move the tabletop longitudinally or transversely.

Making an Exposure



Triggering of radiological exposure is possible both at the generator and from the footswitch **7**.
Set or check the exposure data at the generator.

Check exposure preparations.
Instruct the patient:
Take a deep breath and hold it!

Press the exposure switch and release it only when exposure is completed.

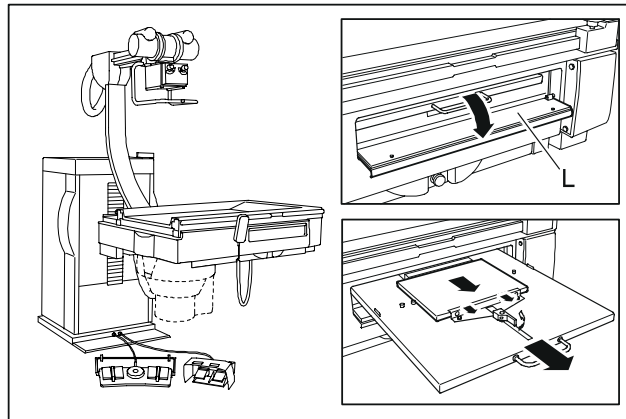


Note

Do not forget radiation protection measures for the patient (lead rubber apron, gonad protector, etc.)!

Removing the Cassette

Open the cassette shaft cover **L** and pull the cassette tray out all the way to stop. Release the cassette by pressing the latch lever and remove it. Insert the cassette tray all the way to stop and close the cassette shaft cover again.

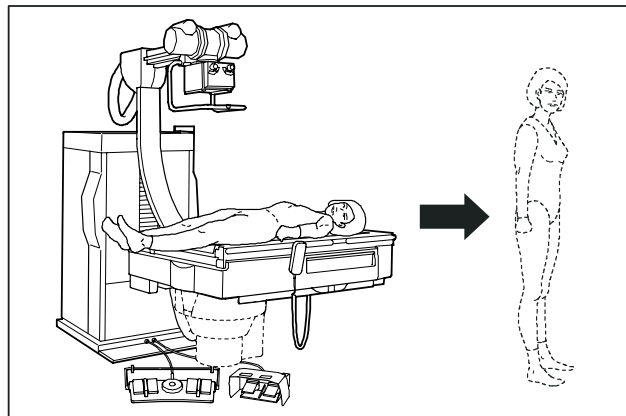


End of the Examination

If applicable, move the table into the horizontal position and lower the table.

Press switch **2** on the control arm **1** and move the tube unit - collimator into the exposure position.

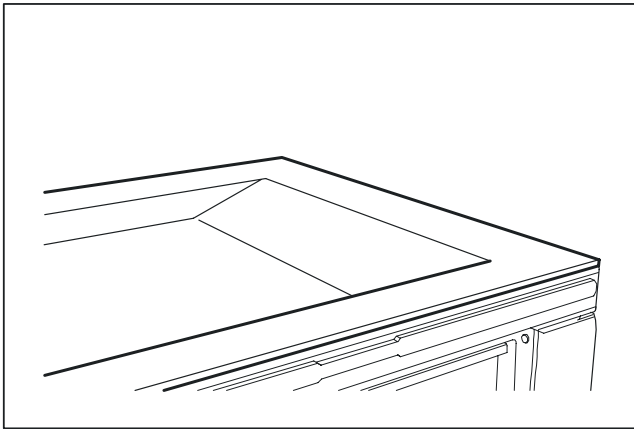
Remove any accessories that are not needed or that may be in the way when removing the patient from the table.



Have the patient dismount the table.

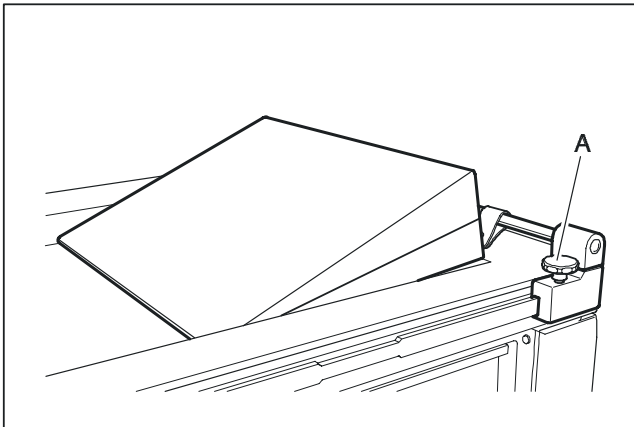
Optional Accessories:

Patient Table Mat



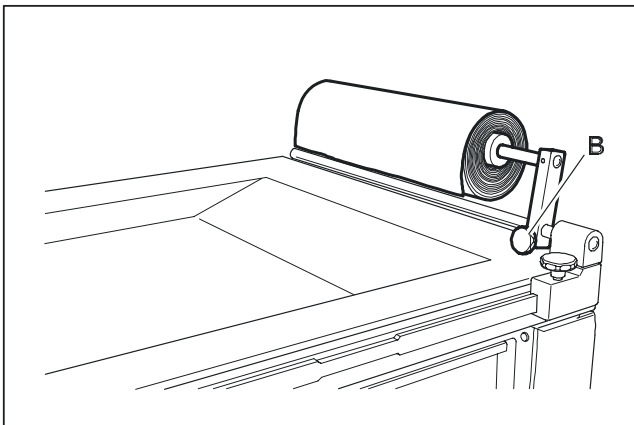
The patient table mat is used as a patient cushion and is secured in place with built-in magnets.

Head - Back Cushion



The holder for the head cushion is secured to the table rail by tightening the knob **A**.

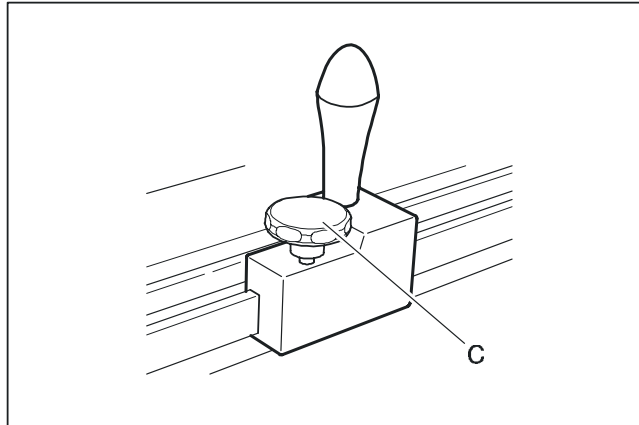
Paper Roll Holder



The paper roll holder is secured to the head-end mount by tightening the knob **B**.

Patient Handgrips

The patient handgrips are slid into the table rails and secured in place by tightening the knob **C**.

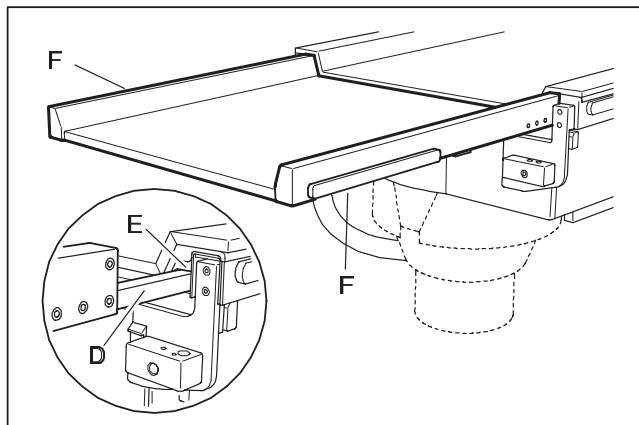


Tabletop Extension

The tabletop extension is inserted into the two openings on the table frame **E** using the two studs **D** and automatically snaps in place.

When in the latched position, the tabletop extension is sensed by switches.

To remove it, press the two release levers **F** and remove the tabletop extension from the rear.

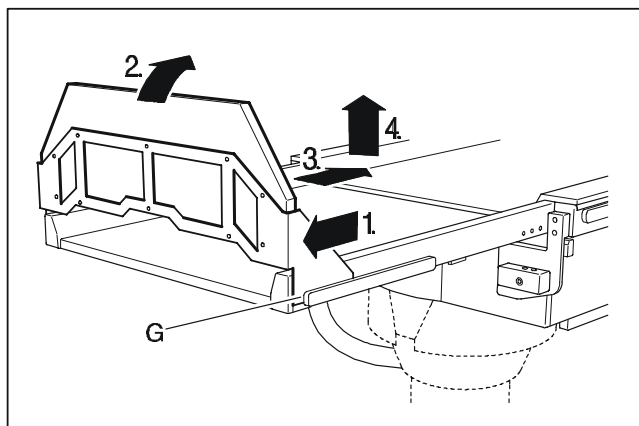


Attention:
Both pivots must be caught audibly

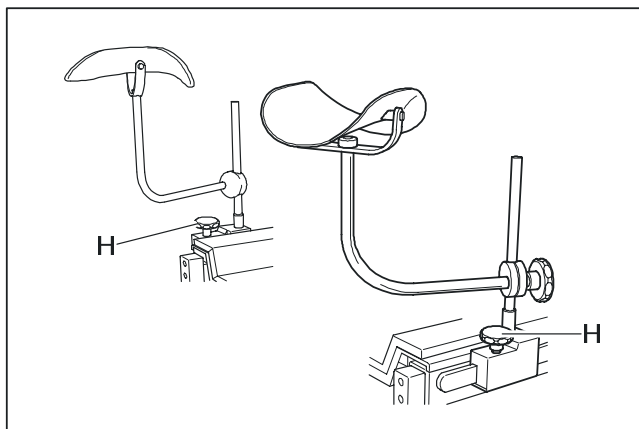
Footrest

The footrest is hooked into the rungs **G** of the tabletop extension in the desired location.

Removing the footrest is done in four steps, in the sequence 1 - 4.

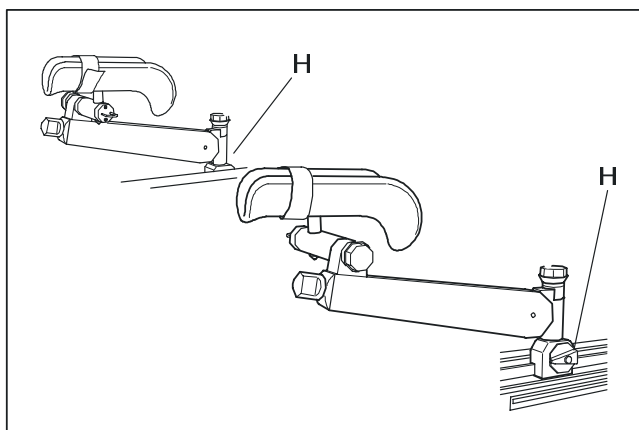


Leg Supports, Standard Version



The leg supports are inserted into each of the table rails and secured in place by tightening the knob **H**.

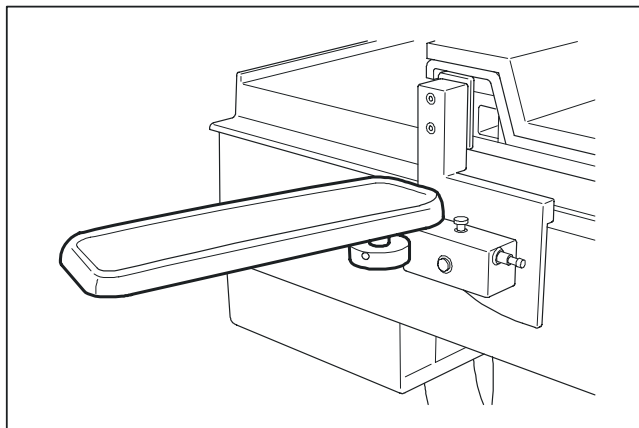
Coxafix Leg Supports



The leg supports are inserted into each of the table rails and secured in place by tightening the knob **H**.

See also the operating instructions for the leg supports.

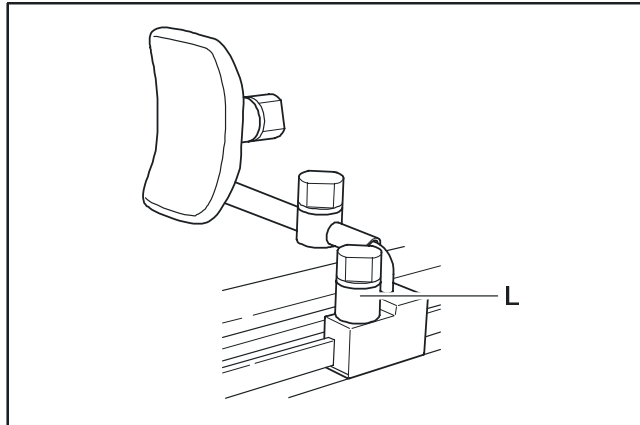
Elbow Supports



The elbow supports are inserted into the mount provided for it and can be pivoted into the working position.

Shoulder Rests

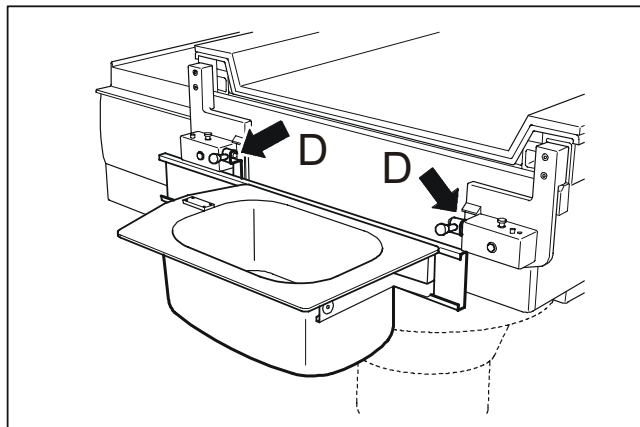
The shoulder rests are inserted into the table rails and secured in place by tightening the knob **L**.



Flush Bowl

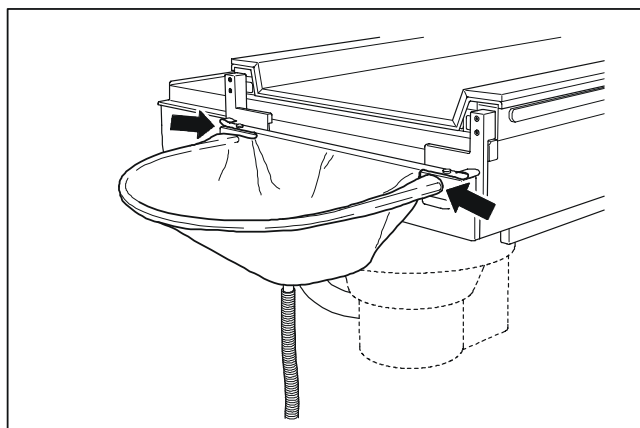
The flush bowl is hooked onto the two studs **D** with the hooks of the table frame.

To remove it, disengage the latching studs and take off the flush bowl.

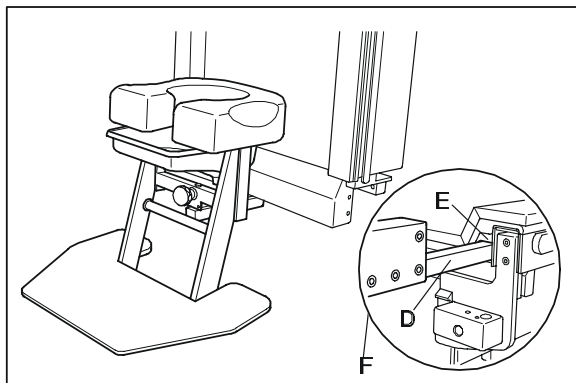


Rinse Bag Mount

The bracket for the rinse bag mount is inserted completely into the two holes. Then the rinse bag is placed over the bracket from behind, the connector bracket is inserted through the tab of the rinse bag and hooked into the bag.



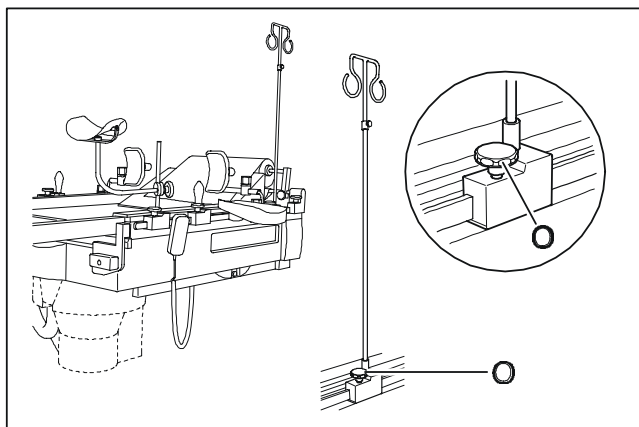
Micturation Seat



The micturation seat is inserted into the two openings in the table frame **E** with the two studs **D** and snaps automatically in place. When in the latched position, the micturation seat is sensed by the switch. To remove it, press the two release levers **F** and remove the micturation seat towards the back.

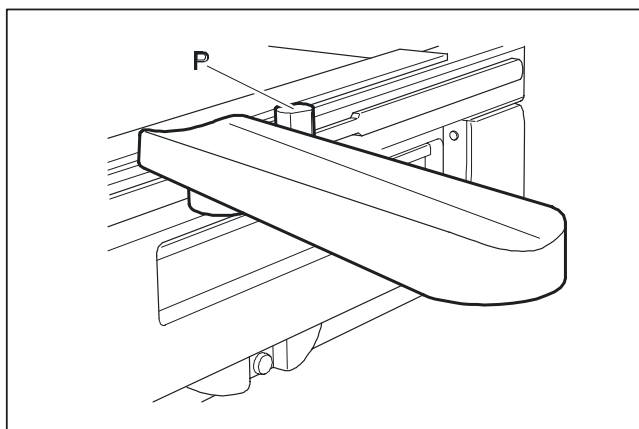
Attention:
Both pivots must be caught audibly

Infusion Bottle Stand



The infusion bottle stand is attached to the table rail and secured in place with the knob **O**.

Arm Rest - Infusion Arm Rest



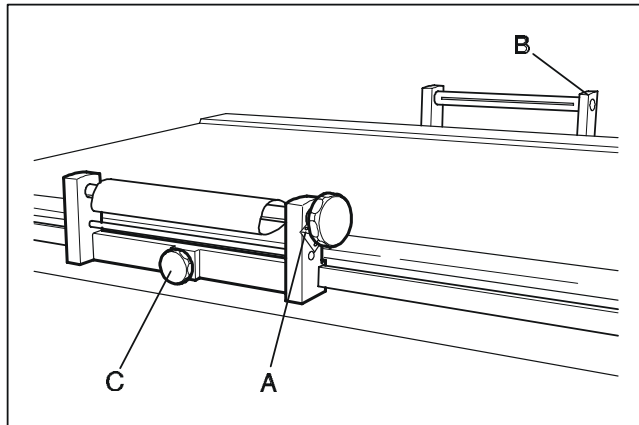
The armrest is attached to the table rail and secure in place with the knob **P**.

Compression Band

Installation:

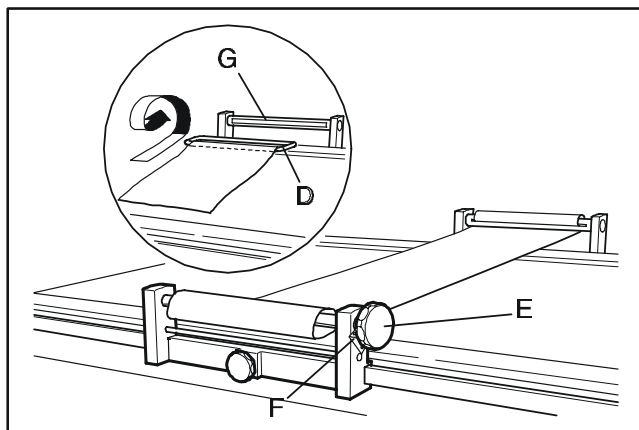
Insert take-up roll **B** into the wall-side profile rail in the tabletop. Secure it in the working position using the knob **C** on the opposite side.

Insert tensioner **A** into the front rail. Secure the tensioner in the working position opposite the take-up **B** with knob **C**.



Press the release latch **F**. Unroll the band and stretch it across the patient.

Wrap the stretch band once around the shaft of the take-up roll **B**. Den Insert bow **D** into the slot of shaft **G**. Turn knob **E** and roll up/tension the compression band.



To release the band:

Press release latch **F**, unroll the tension band and remove it.

MAINTENANCE:

Important Note:

As with every piece of technical equipment, this radiographic unit also requires regular maintenance and care to increase the operating reliability of the unit.

Checks Performed by the User:

The user must check the radiographic system for deficiencies as described below. If there are functional deficiencies or other differences from normal operating behavior, switch the unit off immediately and contact customer service. The unit may be put back into operation only after all deficiencies have been corrected.

Daily Checks:

Display lamps or LED's, tilt angle indicator/position memory display, manual control unit, multi-function footswitch, exposure and fluoroscopy footswitch, control bar for tube support arm, labels and warning labels and good condition of all visible parts.

Weekly Checks:

All cables and their connectors for damage or cable breaks.

Per the Radiation Regulations

The constancy test.

Checks Performed by Customer Service:

Maintenance respectively Repairs may always be carried out by qualified personnel being authorised by us do so.

To obtain problem-free operation of the unit as well as to ensure safety for patients and operating personnel, technical maintenance should be performed by customer services in 12-month intervals.

See "Technical Maintenance" in the Installation Instructions.

Caution:

If there is a failure of parts that may affect the safety of the unit, original replacement parts must be used.

We recommend that written verification of the type and extent of the work performed be requested from the person performing the work, and if applicable, including changes to nominal data or of the operating range, and with date, company name and signature.

CLEANING:

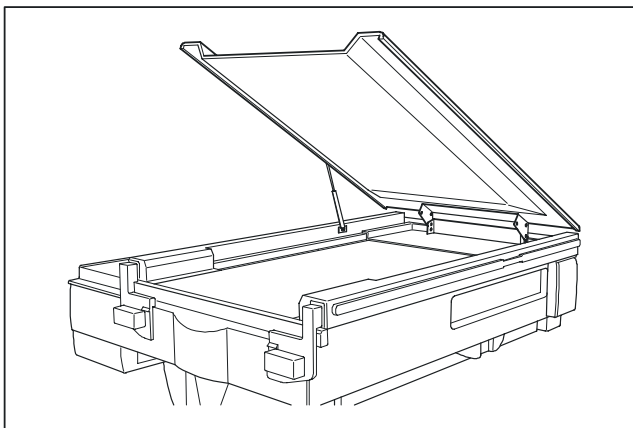
Before cleaning the system, switch it off.

Clean the space between the tabletop and the table.

Move the table into the horizontal position. Remove all accessories from the table accessory rail.

Grab the tabletop at the foot end and lift it up (the tabletop is held in the opened position by gas springs).

Clean all visible parts. Then press down on the tabletop against the pressure of the gas springs.



Caution: risk of crushing

Plastic surfaces may be cleaned only with soapy water because other solutions (e.g. with high alcohol content) can dull the surface and cause it to become brittle. No caustic, solvent or abrasive cleaners or polishes may be used. Water or any other liquid may not get inside the unit because this can cause short-circuits in the electrical installation and to avoid corrosion of parts.

Painted parts and aluminum surfaces may only be wiped down with a damp cloth and wiped dry with a cotton cloth.

Chromed parts may only be wiped down with a dry cotton cloth.

DISINFECTION:

Prior to disinfecting it, switch off the system.

Only those disinfection methods that correspond to applicable regulations and guidelines as well as to explosion protection measures may be used.

No caustic, solvent or volatile disinfectants may be used.

Spray disinfectants are not recommended because there is a possibility that disinfectant can penetrate into the radiographic unit.

If you use a disinfectant that can form an explosive gaseous mixture, they must have evaporated before the system is switched on again.

The following disinfectants have been tested and approved:

Tego 103, Kosolin, Misty Multi-Purpose Disinfectant Cleaner, Misty Multi-Purpose Disinfectant Cleaner II, Misty Disinfectant and Deodorant RTU, Precise Hospital foam Cleaner Disinfectant.

EEC Guideline 93/42 Regarding Medical Products

Article 12

Special Procedure for Systems and Treatment Equipment

(1) Differing from Article 11, this article applies for systems and treatment equipment.

(2) Every natural or legal person who assembles products which bear the CE symbol, with the intention of putting them into use in the form of a system or as treatment equipment corresponding to their specified purpose and within their intended defined application, must provide a statement of content that

a) in mutual agreement, they have tested the products in accordance with the manufacturer's instructions and have performed the work steps in accordance with these instructions;

b) they have packaged the system or treatment equipment and have provided specific user instructions, including detailed manufacturer instructions;

c) The entire procedure was internally monitored and checked in an appropriate manner.

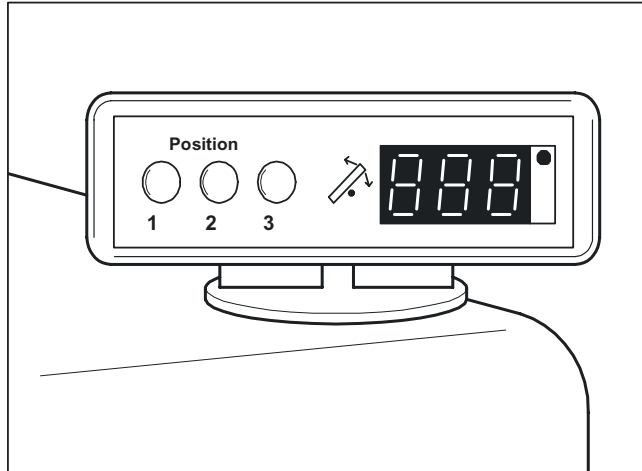
If the conditions as stated in Paragraph 2 have not been met, as would be the case when the system or the treatment equipment includes products which do not bear the CE symbol, or when the selected combination of products no longer corresponds to its original intended purpose, the system or treatment equipment shall be considered a separate product and, as such, is subject to the detailed specifications of Article 11.

The user is responsible for observance and performance of national differences in EC countries!

Error Codes

If there are malfunctions of the unit, they are indicated by error numbers in the display or on the operational unit by color changes of the LED's.

The following is a list of error codes and corrective measures for them.



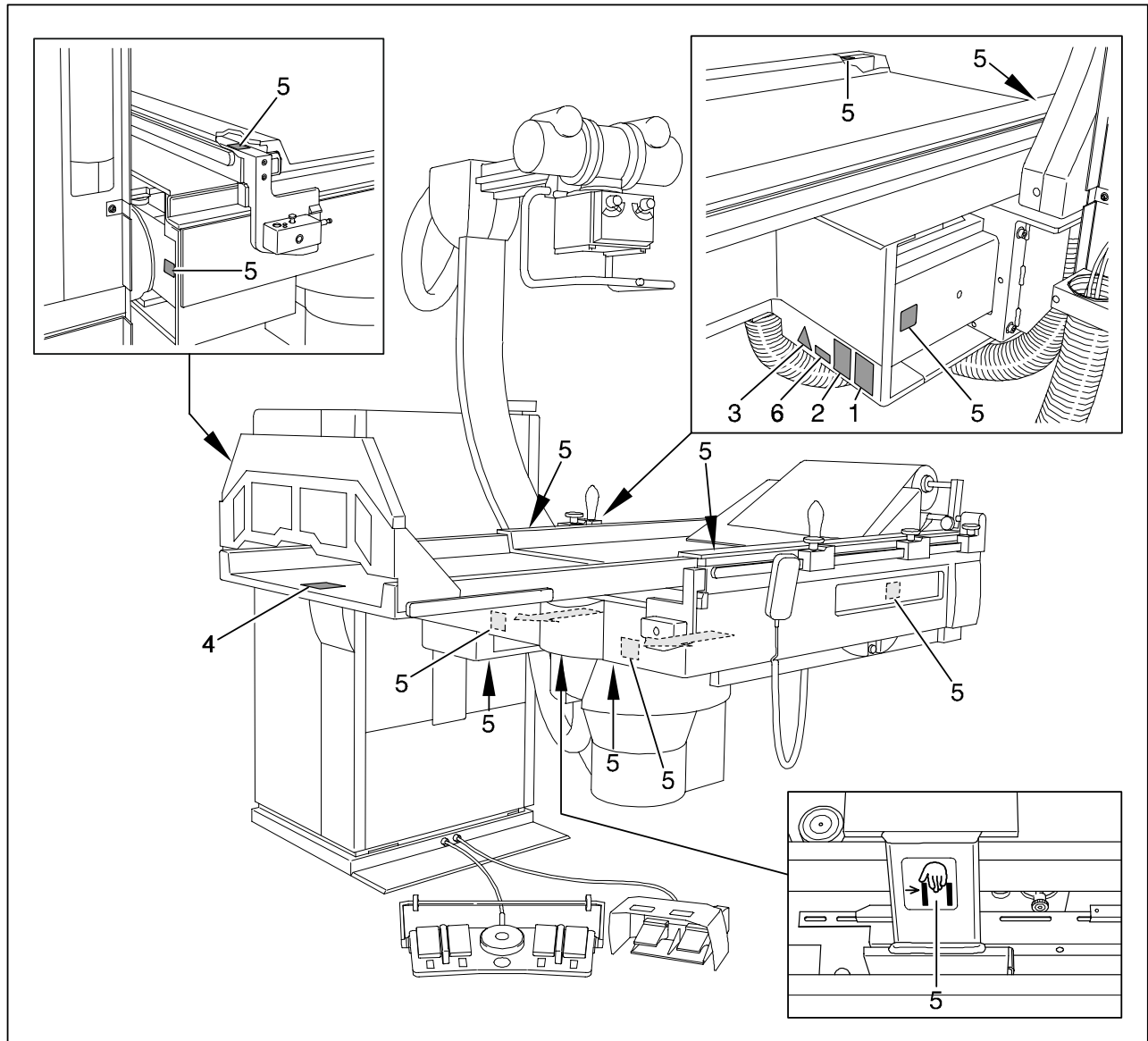
Error number	Cause	Error correction
E 1	Emergency stop pressed	Disengage emergency stop
E 10	System can not be moved into the exposure position (risk of l.l. collision)	Increase distance to the floor
E 11	Tube unit support arm in park position during fluoroscopy or exposure request	Move the support arm into the exposure position
E 12	Bucky cover not closed	Close Bucky cover
E 13	A valid film format not detected	Insert film Insert Bucky all the way
E 14	Attention! Double exposure	Change the film
E 15	System and cassette not centered	None
E 16	Exposure aborted	Hold exposure footswitch pressed until exposure is completed
E 20	Collision of image intensifier	Movement possible only in opposite direction
E 21	Collision of X-ray tube unit	Movement possible only in opposite direction
E 30	Table accessory no correctly snapped in	Snap the accessory in position
E 31	Table accessory malfunctioning	Check the accessory
E 40		
E 50		
E 60		
E 70		
E 80		
E 90		
F 1 to F 99	Fatal system errors	Call service and report the error number

If LED's **61a, 62a, 63a, 64a, 67a, 68a, 69a, 70a** on the manual control unit **light up red** or if the two LED's, **65a** and **66a** blink **yellow**, a **fatal error** has occurred that **can be corrected only by the service technician**.

Location of Identification Labels


Labeling:

See also the opposite page



Sign board table:

1. Type plate

	HANS PAUSCH Röntgengerätebau D-91065 Erlangen Graf-Zeppelin-Str. 1
Type	<input type="text"/>
Fabr. Nr.	<input type="text"/>
Datum	<input type="text"/>
Spanng.	<input type="text"/> Volt
Frequenz	<input type="text"/> Hertz
Strom	<input type="text"/> Ampère
Made in Germany	

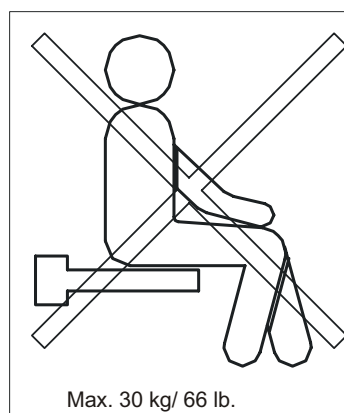
2. CE- lable



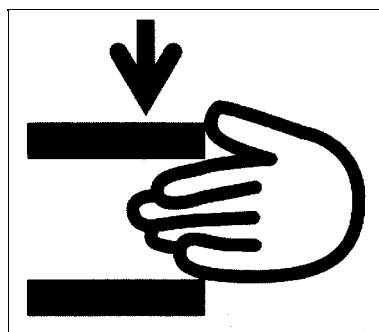
3. Pay attention



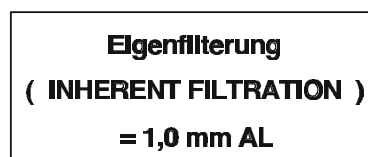
4. Do not sit down - max. load 30 kg



5. Attention: Crash zones



6. Inherent Filtration



Notes:

We reserve the right to make changes resulting from technical advances.