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Description

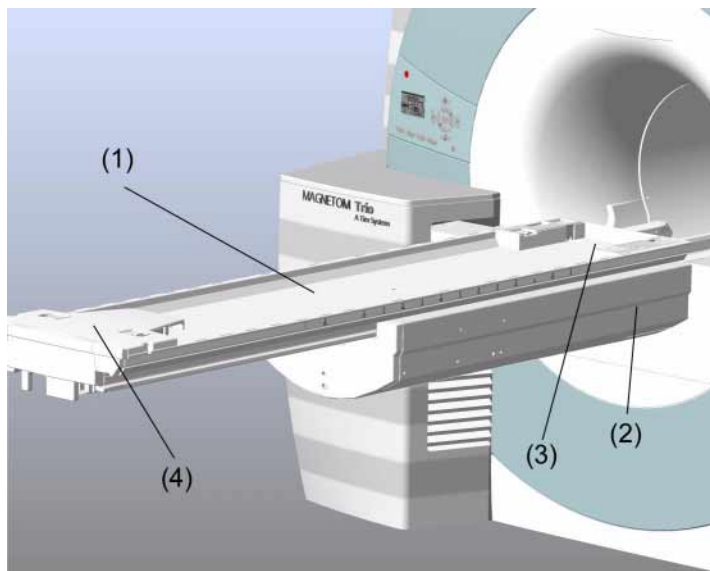
The patient table has the following functions:

- Positioning the patient for the measurement
- Securing and positioning the coils used for the measurement
- Positioning the patient in the magnet isocenter

The patient table consists of a table and a movable tabletop securely attached to the table. The supporting frame is directly installed at the magnet.

The tabletop can be moved horizontally in the magnet bore. When moved completely out of the magnet, the tabletop may be moved vertically as well.

For the purpose of orientation, the head and foot end of the patient table are differentiated.



Patient table

- (1) Tabletop
- (2) Supporting frame
- (3) Head end of patient table
- (4) Foot end of patient table

The patient table includes 10 coil sockets as well as connections for the vacuum cushion, headset and squeeze ball.

The patient table is controlled via the control elements. The relative position and the current movement of the tabletop are shown on the patient table display (→ [Page B.6-5 Patient table displays](#)).

Patient table positions

To operate the patient table safely and efficiently, operating personnel has to be familiar with its most important positions.

There are different types of instruction areas:

- Lowest position
- Innermost position
- Outermost and upper position (Home Position)
- Last Scan Position
- Default Position
- Center Position
- Relative position

The lowest, innermost, outermost and top positions are end positions.

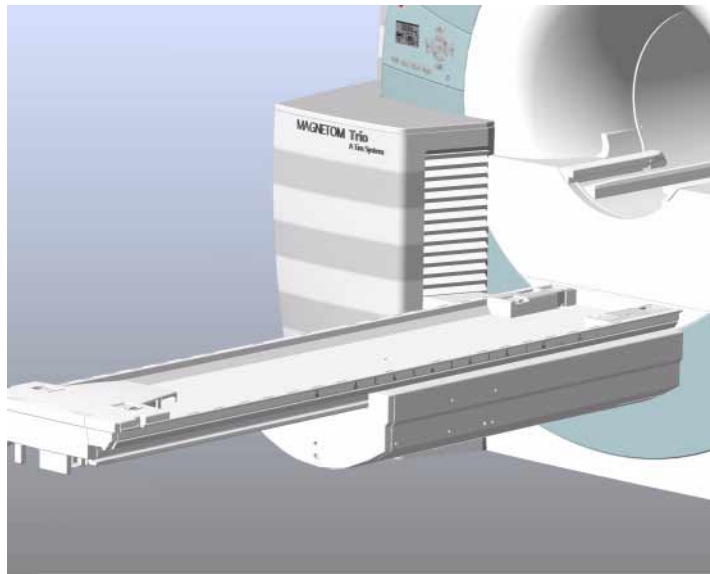
Last Scan Position is the relative position of the tabletop for the last measurement.

When using the default position, the center of the head coil is located in the magnet isocenter.

When using the center position, the area to be measured is located in the magnet isocenter.

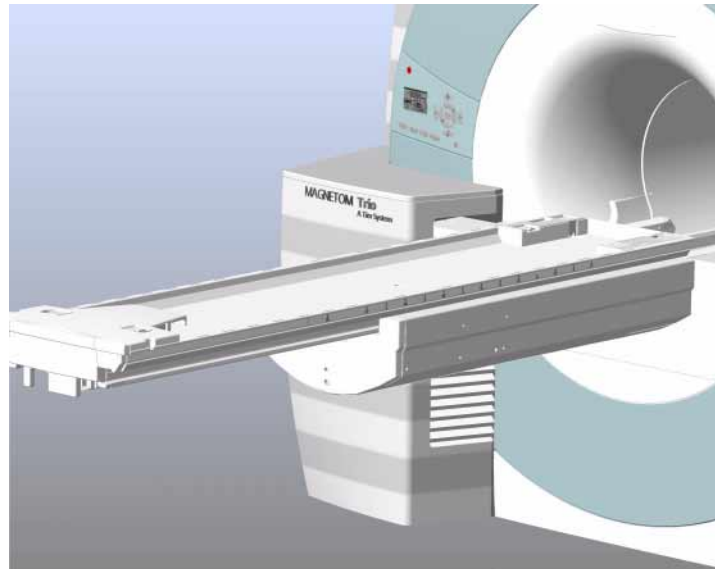
The relative position of the tabletop measures the distance between a slice marked with the laser light localizer and the magnet isocenter.

End positions



Patient table in the lowest position

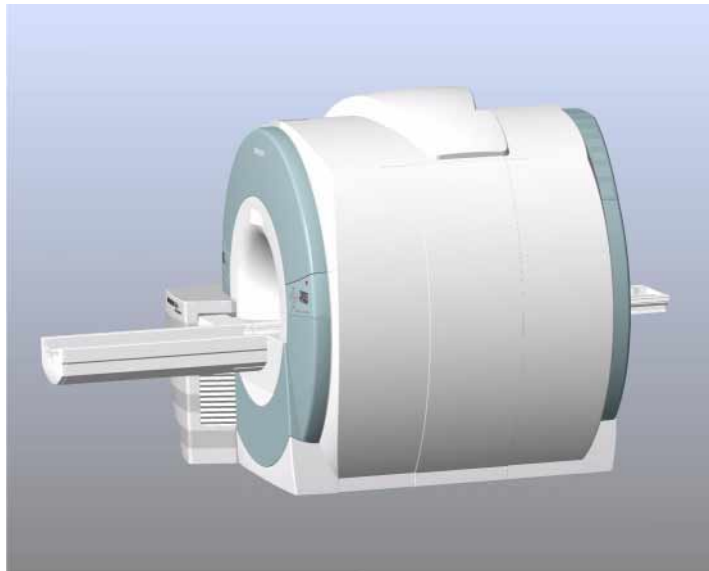
At the lowest position, the patient table may be moved vertically into the outermost and upper position (Home Position) only.



Patient table in the outermost and upper position (Home Position)

When in the outermost and upper position (Home Position), the patient table is at the level required to move it into the magnet.

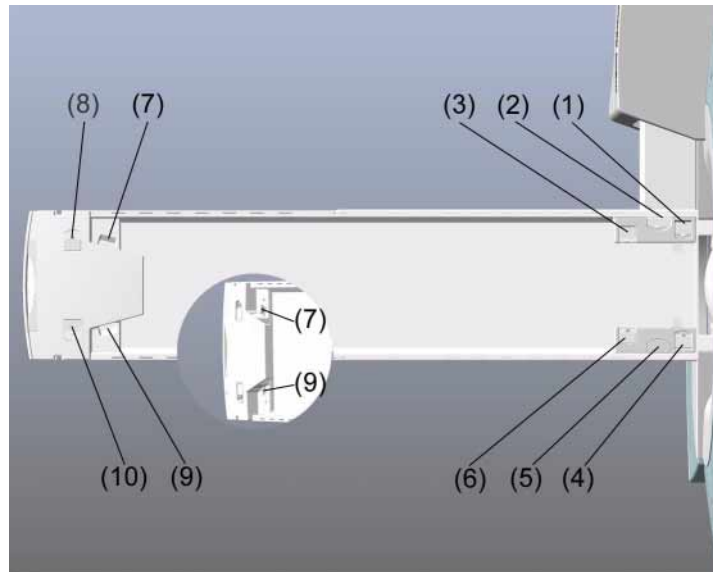
From the Home Position, the patient table can be moved down vertically when outside the magnet. It can also be moved horizontally into the magnet up to the max. inside position.



Patient table in full inside position

Layout of coil sockets

Coil sockets are located at the head and foot ends of the patient table.

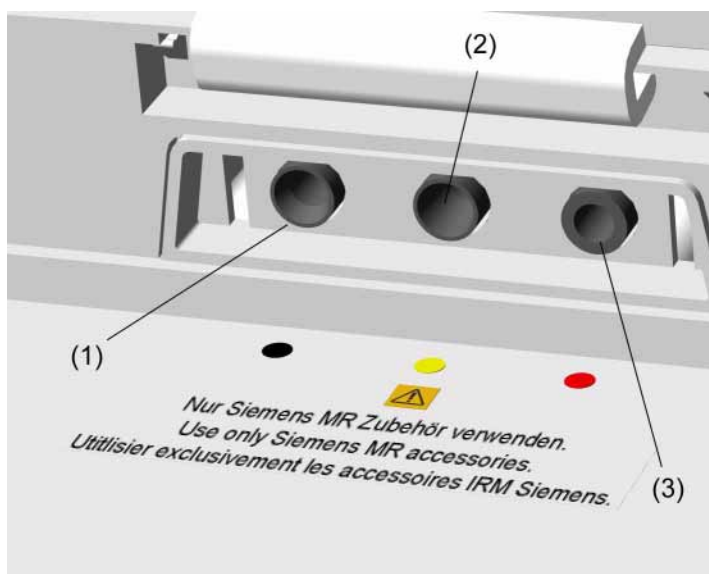


Patient table with coil sockets

- (1) Coil socket 1: 8 channels
- (2) Coil socket 2: 4 channels
- (3) Coil socket 3: 6 channels
- (4) Coil socket 4: 8 channels
- (5) Coil socket 5: 4 channels
- (6) Coil socket 6: 6 channels
- (7) Coil socket 7: 6 channels
- (8) Coil socket 8: 8 channels
- (9) Coil socket 9: 6 channels
- (10) Coil socket 10: 8 channels

Connections at the patient table

The following connections for components or functions are located at the foot end of the patient table.



Connections at the foot end of the patient table

- (1) Connection for vacuum cushion
- (2) Connection for headphones
- (3) Connection for squeeze bulb

The vacuum cushions are used for comfortable and secure positioning of various body regions.

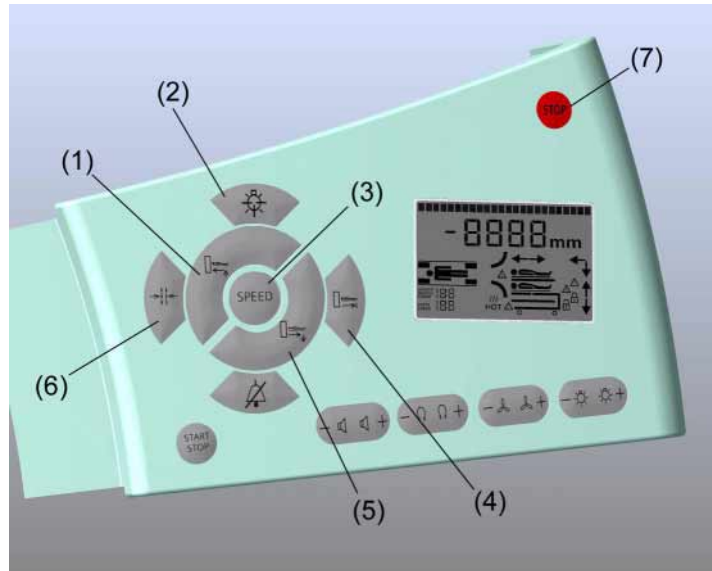
The patient can use the headphones to listen to announcements or music during the measurement. They also provide hearing protection for the patient.

The squeeze bulb allows the patient to get the attention of personnel during the measurement. An audible signal sounds at the intercom when the patient squeezes the bulb ([→ Page B.9-1 Description](#)).

Operation

After positioning the patient on the tabletop, the region to be examined has to be positioned in the magnet isocenter. The tabletop is moved into the magnet bore. The tabletop cannot be moved into the magnet bore unless the patient table is at the correct height (examination height). Similarly, the patient table can be lowered only if the tabletop is completely moved out of the magnet bore.

The control units provide the following buttons for controlling the motorized patient table or tabletop movements (→ [Page B.6-1 Control unit](#)).



Control elements on right control unit

- (1) **Table Movement Up/Inward** button
- (2) **Laser Light Localizer** button
- (3) **Speed** button
- (4) **Home** button
- (5) **Table Movement Down/Outward** button
- (6) **Center Position** button
- (7) **Table Stop** button



For some measurements, the tabletop is moved automatically.

The buttons **Table Movement Up/Inward** and **Table Movement Down/Outward** are used to move the patient table vertically and the tabletop horizontally.

Selecting the **Speed** button increases the rate of table travel by one level.

Using the **Home Position** button, two different positions may be selected:

- Home Position
- Last Scan Position

Using the **Center Position** key, two different positions may be selected:

- Default Position
- Center Position

The **Table Stop** button is used to stop the movement of the patient table or tabletop.



WARNING

Vertical and horizontal movement of the patient table!

Personal injury

Damage to the patient table

- ✧ Ensure that there are no persons or objects within the hazardous zone of the patient table.
 - ✧ Ensure that the coil, patient or his clothing do not extend over or hang off the patient table.
 - ✧ Ensure that none of the belts hangs off the patient table.
 - ✧ Ensure that the IV tube does not get caught and that the IV needle remains in the patient during table movement.
 - ✧ In case of hazardous conditions, press the **Table Stop** button.
 - ✧ In case of patients with long hair, ensure that it is not caught under the moving patient table (have the patient wear a hairnet, kerchief, paper hat or similar).
 - ✧ Secure the patient's arms with straps so that the patient is not caught between the tabletop and the magnet cover.
 - ✧ Stabilize helpless patients using straps.
 - ✧ Explain the significance of protocol-controlled table movements to the patient.
-



WARNING

Vertical and horizontal movements of the patient table!

Injury to patient

- ✧ Maintain visual and/or acoustic contact with the patient.
- ✧ Remain in the examination room during examinations involving children and patients who are seriously ill, paralyzed, unconscious, sedated, handicapped or medicated.

Risk of injury

Zones with a higher than normal potential for injuries are indicated by the following warning sign:



Warning sign for potential point of injury

Controlling the patient table

Background information

(→ [Page D.1-32 Functionality of movement buttons](#))

Raising the patient table/ moving the tabletop into the magnet bore

- ✧ Press and hold the button **Table Movement Up/Inward**.

When you release the button, the patient table moves upward to the level required for moving into the magnet bore. After a brief stop, the tabletop moves horizontally into the magnet bore.

- ✧ Release the button when you reach the desired table position.

The patient table stops.

Moving the tabletop out of the magnet bore/lowering the patient table

- ✧ Press and hold the button **Table Movement Down/Outward**.

In case you do not release the button, the tabletop moves completely out of the magnet bore. After a brief stop, the patient table moves vertically into the lower end position.

- ✧ Release the button when you reach the desired table position.

The patient table stops.

Triggering/releasing the Table Stop

Triggering the Table Stop



Table Stop button

- ✧ Press the **Table Stop** button.

The Table Stop is released. The tabletop comes to an immediate stop. The two arrows on the table display indicating the current table movement flash alternately.



The patient table or tabletop movement can also be stopped from the intercom.

- ✧ With respect to the **Table Stop** button, please refer to the section on ([→ Page D.1-25 Rescuing the patient in an emergency](#)).

Releasing the Table Stop

- ✧ Press the **Table Movement Up/Inward** button.
- ✧ Press the **Table Movement Down/Outward** button.

The Table Stop is released.

Marking the slice for measurement with the laser light localizer

- ✓ The patient is positioned on the tabletop.
- ✓ The patient table has been moved to measurement height.



WARNING

Laser beam of the laser light localizer!

Eye injury caused by laser beam

- ✧ Ensure that the operating and adjustment devices as well as methods given are used as described.
 - ✧ Inform the patient about the possible hazards and request that he keep his eyes closed during positioning.
 - ✧ Ensure that helpless patients keep their eyes closed during the positioning procedure.
 - ✧ Only use the laser light localizer as described.
 - ✧ The laser light localizer needs to be checked regularly by Siemens Service.
-

**WARNING**

Laser beam exits in dot form at the laser light localizer!

Eye injury caused by laser beam

- ✧ Ensure that the laser light localizer appears in the form of crosshairs on the patient table.
- ✧ Switch off the laser light localizer when it appears in the shape of a dot. Also notify Siemens Service.

**Laser Light Localizer** button

- ✧ Press the **Laser Light Localizer** button on the control panel.

The laser light localizer is switched on. A crosshair is visible directly below the area.



- ✧ Use the move buttons to move the tabletop so that the crosshairs point precisely to the region of interest.

The slice for measurement is marked. The table display shows the relative tabletop position of the marked slice.



The laser light localizer shuts off automatically after 60 seconds without table movement.

Moving the tabletop into the Center Position

- ✓ The slice for measurement is marked with the laser light localizer.



Center Position button

- ✧ Press the **Center Position** button on the control panel.

The tabletop moves into the magnet bore until the slice to be measured is located in the magnet isocenter.



The tabletop is not moving?

The functions of the **Center Position** button are locked. The following message appears on the table display: **Position outside center.**

- ✧ Reposition the patient.
-

Moving the tabletop into the Last Scan Position



Center Position button

- ✧ If the tabletop was moved since the last measurement – however not vertically – press the **Center Position** button.

The tabletop moves into the position of the last scan.



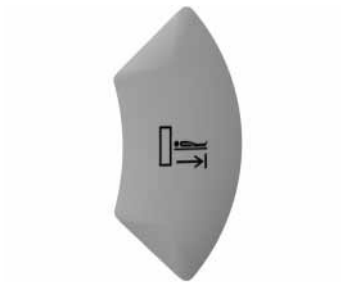
The tabletop does not move into the Last Scan Position?

The tabletop was last moved vertically using the **Table Movement Down/Outward** button. As a result, the Last Scan Position is no longer stored.

- ✧ Select a new tabletop position.
-

Moving the tabletop into the Home Position

- ✓ No examinations are in progress.



Home Position button

- ◇ Press the **Home Position** button on the control unit.

The tabletop moves completely out of the magnet bore.



Any measurement in progress is aborted when the tabletop is moved into the Home Position.

The images of the current patient measured to this point are no longer displayed in the image area of the examination card.

The series icons of the application steps that are already completed disappear (→ *syngo* MR Operator Manual).

Moving the tabletop into the Default Position

- ✓ The laser light localizer has NOT been used to mark a slice since the system has been switched on or the table has last been in the Home Position.
- ✓ The head coil is connected.



Center Position button

- ✧ Press the **Center Position** button on the control panel.

The tabletop moves into the magnet bore until the center of the head coil is located in the center of the measurement field.

Rescuing the patient in an emergency

In case of accidents, e.g. quench with failing quench line, fire with heavy smoke or emergency situations involving the patient (e.g. heart attack), the tabletop and patient have to be moved out of the magnet bore.



WARNING

Patient rescue during emergency situations, e.g. quench with failing quench pipe, fire with strong smoke development, emergency situation involving patient (e.g. heart attack) and simultaneous power failure!

Personal injury

- ✧ After releasing the emergency unlocking mechanism, remove the patient manually from the magnet bore.
-

Rescue while power supply and/or drive is intact



The fastest method for moving the tabletop out of the magnet bore (max. 14 s) is to press the **Home Position** button. Select this method whenever the power supply and/or motorized drive are intact.

Rescuing the patient**Home Position** button

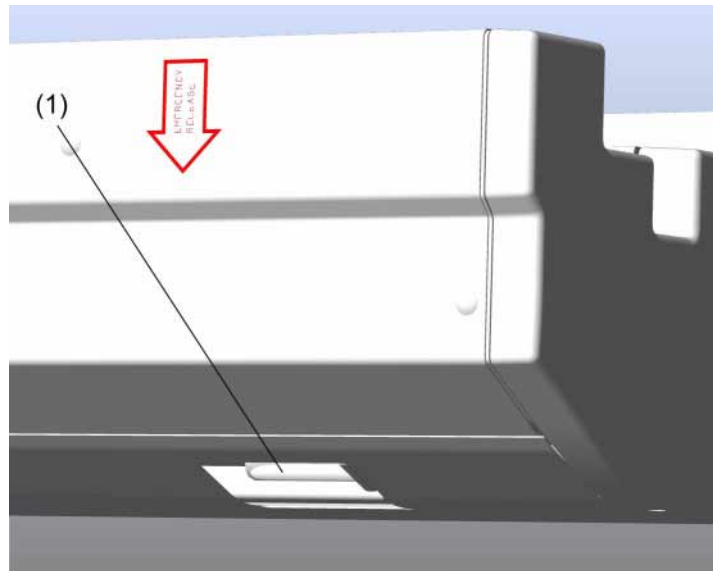
- ✧ Press the **Home Position** button.

The tabletop moves completely out of the magnet bore.

- ✧ Rescue the patient.

Rescue the patient in case of power failure or defective motorized drive

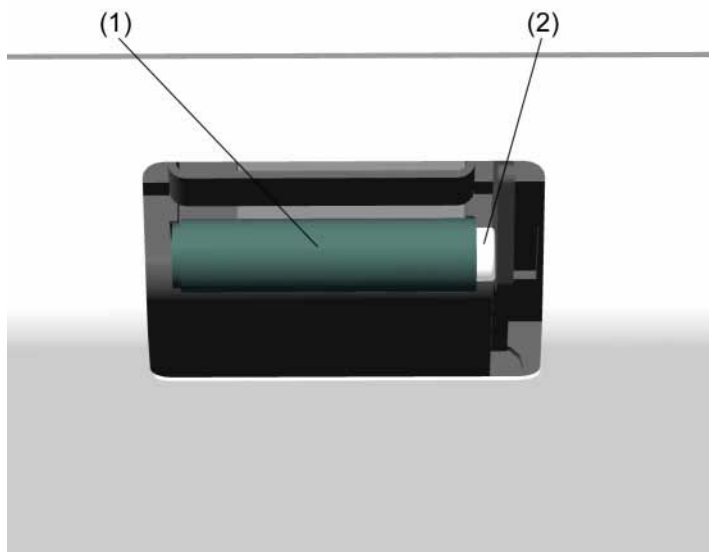
In case of power failure and/or defective motorized drive, pull the tabletop manually out of the magnet bore. To reduce the force required, activate the emergency release.



Support frame of patient table with emergency release

(1) Emergency release

Unlocking the emergency release



Emergency release

- (1) Unlocking handle
- (2) Reset button

✧ Pull the unlocking handle outward up to the end stop.

A reset button moves out of the unlocking handle.

The tabletop is mechanically decoupled from the motorized drive unit.

The Table Stop function is released and the **Table Stop** button glows.

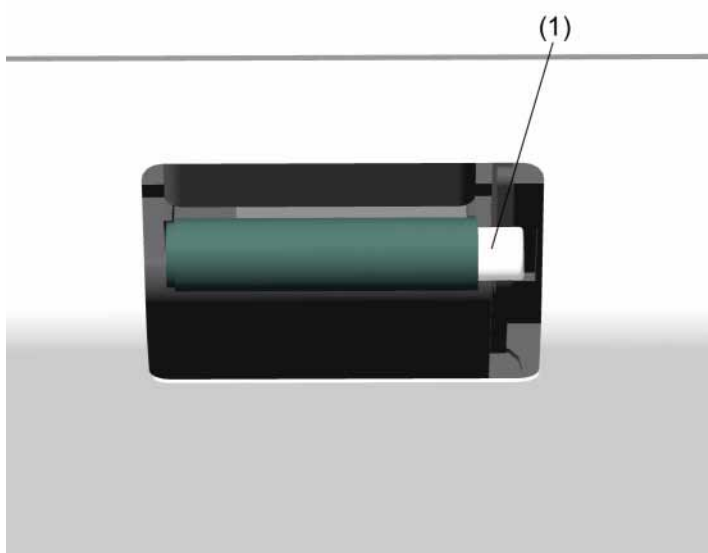
The MR measurement is terminated and the table positioning is deleted.

The two movement arrows on the table display and the **Table Movement Up/Inward** and **Table Movement Down/Outward** buttons blink alternately on the control units.

- ✧ Pull the tabletop out of the magnet using the handle at the foot end.
- ✧ Rescue the patient.

Reset the emergency release

- ✓ The hazardous situation has passed.
- ✓ The error regarding the power supply and/or the motorized drive has passed.

**Emergency release****(1) Reset button**

- ✧ Press the reset button into the unlocking handle.

The unlocking handle snaps back into its original position.

- ✧ Move the table manually by approx. 10 cm into any direction.

The tabletop locks audibly into the motorized drive unit.

- ✧ Press the **Table Movement Up/Inward** button.
- ✧ Press the **Table Movement Down/Outward** button.

The Table Stop is cancelled.

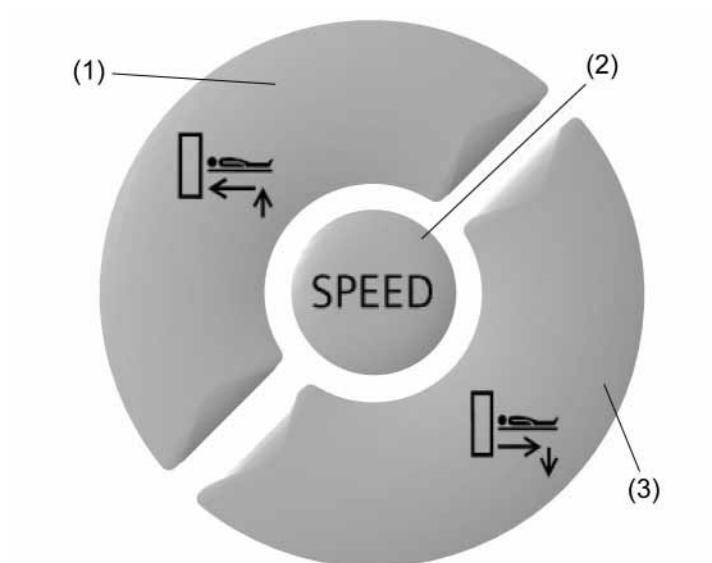
- ✧ Press the **Home Position** button on the control panel.

The tabletop drives at reduced speed into the Home Position.

After reaching the Home Position, the patient table is ready for operation again.

Background information

Functionality of movement buttons



Buttons for horizontal and vertical table movements

- (1) **Table Movement Up/Inward** button: Moving into the magnet bore/Raising the patient table
- (2) **Speed** button: Movement at increased speed
- (3) **Table Movement Down/Outward** button: Moving out of the magnet bore/Lowering the patient table

The speed of the horizontal tabletop movement is influenced by the following factors:

- Activating the **Speed** button
- Status of the laser light localizer

The tabletop moves at reduced speed when the laser light localizer is activated.

Patient table

Patient transport

