

### Important information

The functions of the Wireless Remote Control are activated via an RF transmitter.

**Note**

The Wireless Remote Control may be interfered by other equipment, including portable and fixed RF communication equipment, even if such equipment meets the applicable emission requirements.  
The operator must assure that other wireless devices in the 2.4 GHz ISM band should not be operated in the vicinity of appr. 5 m around the X-ray system. System movements may be interrupted sporadically.  
Please observe and verify normal operation of the Wireless Remote Control prior to using it.

The Wireless Remote Control shall be operated in close vicinity to the patient table only and with full visibility to the patient on the table.

The batteries shall always be sufficiently charged.

The Wireless Remote Control can interfere with life supporting devices.



**Caution**

Wireless Remote Control too close to a life supporting device!

**Interference with life supporting device and possible mal functioning**

- ◆ Make sure to keep a separation distance of larger than 7 cm between the Wireless Remote Control and the life supporting device.
- ◆ In case of interference with other equipment increase the distance between interfering devices.



**Caution**

Mechanical or personal damage

**Emergency stop interrupts movements immediately**

- ◆ Use remote control only when there is visual and accoustic contact with patient.
- ◆ In case of unintended movement press next emergency STOP button.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.  
The Wireless Remote Control may be interfered with by other equipment, including portable and mobile RF communication equipment, even if such equipment meets the applicable emissions requirements.

Operation is subject to the following two conditions:

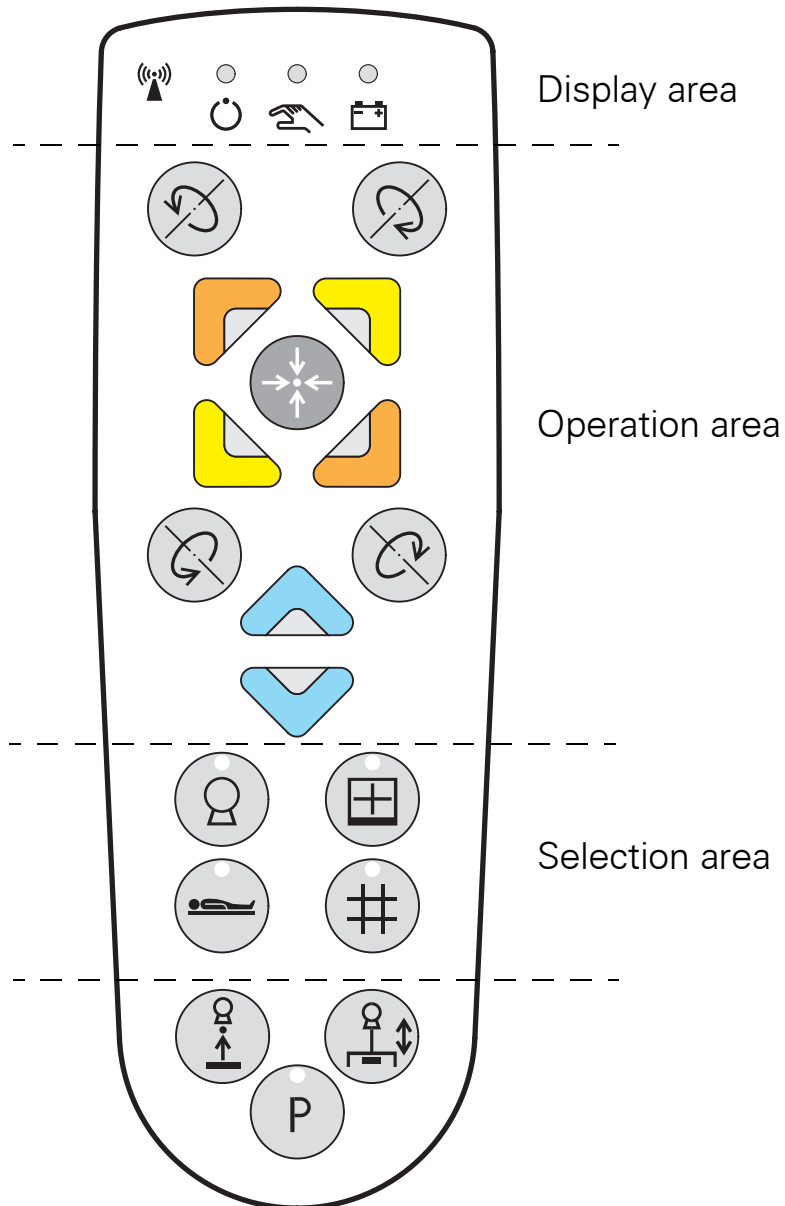
1. this device may not cause interference and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

The Wireless Remote Control must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.

## Note

Use the remote control only inside the examination room.

## Operation



Wireless Remote Control (example)

The remote control is active in a range of approx. 5 m around the table/stand, where the receiver is mounted. If the remote control is in a wider range of the table, it may lose contact with the receiver and will then turn into an inactive mode.

## Display area

There are 3 LEDs showing the status of the remote control.



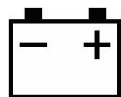
Green LED on: Remote control is on and is in active mode.

Green LED off: Remote control is inactive.

- It is too far away from the table
- The x-ray system is switched off
- The batteries are completely discharged
- The remote control is in “sleep mode”. Press a button swiftly to activate it again.



Orange LED on: An operation button is being pressed.



LED off: battery sufficiently charged, remote control not connected to the Charging Station,

LED flashing red: battery needs charging, remaining capacity < 4h.

LED on red: remote control connected to Charging Station and batteries are being charged.

LED on green: remote control connected to Charging Station and batteries are fully charged.



This symbol marks an RF transmitting component.

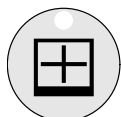
## Selection area

In the selection area you can select which part of the system you want to operate.

The green LED on the selected button is on.



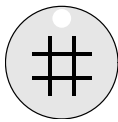
Selection of tube unit



Selection of detector



Selection of patient table



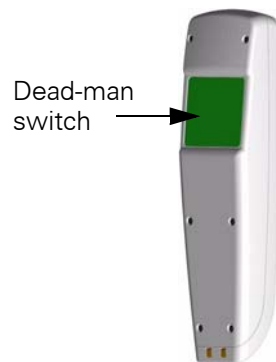
Selection of collimator

## Operation area

### Note

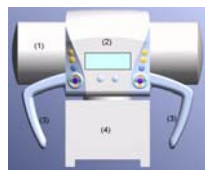
On the backside of the remote control there is a dead-man switch. To execute an operation with a button of the operation area you have to press the dead-man switch simultaneously.

As soon as you release the dead-man switch, the current operation is stopped.



### Note

All following operation directions only apply if the user is standing in front of the tube unit.



## Angular movement of tube unit and detector



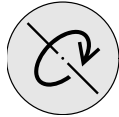
Angular movement of tube unit and detector clockwise about the  $\alpha$ -axis



Angular movement the tube unit and detector counter-clockwise about the  $\alpha$ -axis



Angular movement the tube unit and detector clockwise about the  $\beta$ -axis



Angular movement the tube unit and detector counter-clockwise about the  $\beta$ -axis

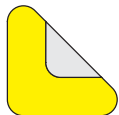
### *Opening/closing the collimator; moving tube unit and detector in x and y direction (orange and green)*



Opening the collimator in transverse direction  
Moving tube unit and detector in x direction (orange)



Closing the collimator in transverse direction  
Moving tube unit and detector in x direction (orange)

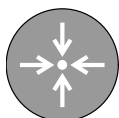


Opening the collimator in longitudinal direction  
Moving tube unit and detector in y direction (green)



Closing the collimator in longitudinal direction  
Moving tube unit and detector in y direction (green)

### *OGP position of patient table or parking position*



Moving the patient table to OGP position;  
Moving the system in parking position



*Moving detector, tube unit and patient table*



Moving up and down detector, tube unit and patient table.

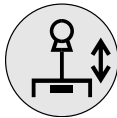
## 'Center lock' tracking



Disable/enable 'center lock' tracking

- Press the 'center lock' tracking button just for a short time (< 3 s) to activate or deactivate center-lock tracking at the current position.  
When an OGP with centered tracking is selected press the tracking button longer than 3 s and keep it pressed (dead man switch). Detector and tube unit are then centered as programmed.
- LED at tube support control panel lights up when tracking is active
- LED at tube support control panel flashes when tracking is not possible or being in progress

## SID tracking



Disable/enable SID tracking control

- Press: The tracking control is switched off(on).
- LED at tube support control panel lights up when tracking is active
- LED at tube support control panel flashes when tracking is not possible or being in progress

## Parking position



Switching over the function of the OGP button to parking position

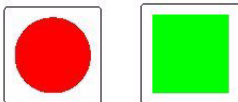
- Green LED is on.

After having reached the parking position, immediately switch off this function again.

- Green LED is off.

## Marking signs

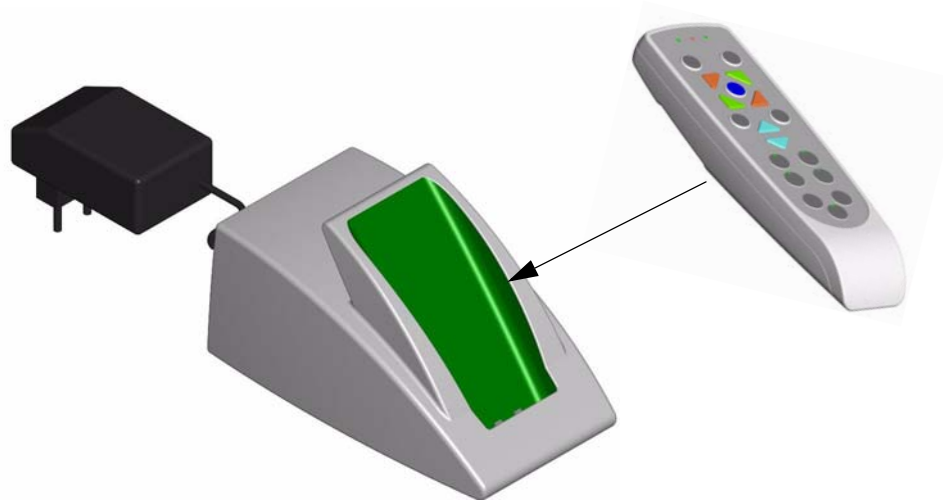
The Wireless Remote Control is marked with a colored sign of different shape to avoid a mix up for installations with a multitude of Wireless Remote Control. The same marks are attached to the respective table and room during installation.



These are two examples of colored signs of different shape to mark the remote control to an x-ray system.

## Charging Station

The Wireless Remote Control is plugged in the Charging Station for charging the batteries. It is recommended to charge the batteries every day after deployment.



Charging Station

If the Wireless Remote Control needs charging during a patient procedure, simply plug it in the Charging Station.

**Note** Never use another charging device than the Charging Station delivered with the Wireless Remote Control.

**Note** For safety reasons, never touch the charging contacts and the patient simultaneously when the charging station is connected to a socket (charging contacts are permanently energized).

**Installation** The Charging Station can be installed either at the wall or on the table.

## Exchange of batteries

The batteries of the Wireless Remote Control must be exchanged once a year by authorized and trained staff. Please call Siemens Service. Unauthorized exchange may cause severe damage.



## Cleaning / Disinfection / Sterilization

### Cleaning

**General** ◆ Before cleaning the system, shut down the system properly.

#### After each examination



Caution

Danger of infection!

◆ Use gloves to avoid infection.

◆ Clean all contaminated parts and all parts which may (or have come) into contact with the patient.

**Units** Only use water or a lukewarm diluted household cleaning agent solution.



Caution

Liquids, scouring cleaning agents or organic solvents or solvent-based cleaning agents (e.g. benzine, alcohol, spot remover)

**Liquids can seep into the system and cause damage or hazards; potential incompatibility of cleaning agents with the material**

◆ Do *not* spray parts of the system!

◆ Use a damp cloth or cotton swab.

◆ Wipe the system with a damp cloth or cotton swab.

**Ventilation slits** ◆ Keep the ventilation slits of all components unobstructed.

**Plastics** Use only special plexiglass cleaning agents, dishwashing detergent, soapy water or laundry detergent.



Caution

Harsh cleaning agents, such as trichloroethylene, acetone, alcohol, and cleaning agents containing these ingredients

**Risk of cracks and breaks due to the general weakening of the material**

◆ Only use the mentioned cleaning agents.

## Accessory parts

Please note that for some accessory parts, special instructions on cleaning are given in the corresponding chapters.

If no special reference is given, then the following applies generally:

- ◆ Use a lukewarm detergent solution and a soft cloth for slight contamination.
- ◆ Remove major contamination first with a cloth soaked in alcohol, then wipe off with clear water.
- ◆ Remove blood spots best of all with cold water.
- ◆ Remove contrast medium spots best of all with warm water.
- ◆ After using disinfectants, always wipe off with clear water.

## Disinfection

To disinfect surfaces we recommend common surface disinfectants based on aldehyde and/or ampholyteric surfactants.



### Caution

Disinfectant sprays

#### **Sprays can seep into the units.**

(This can cause damage to electronic components and the formation of flammable mixtures of air/solution vapor.)

- ◆ Use other disinfection methods.

### Note

The following active ingredient classes can be used:

- Guanidine derivatives
- Peroxide compounds
- Organic acids

The following products should not be used:

- Virex TB
- Terralin
- All alcohol-based products
- All phenol-based products
- All chlorine-releasing products

The safety data sheets of the manufacturer provide detailed information on the composition of the disinfectants.



## Warning

Substances contained in disinfectants

As is commonly known, some substances contained in disinfectants are **hazardous to health**. The concentration of such substances in the air must not exceed the statutorily defined limit.

- ◆ Observe the instructions given by the manufacturer of such disinfectants.

## *Sterilization*

- ◆ Please observe your hospital's regulations concerning sterilization.



## Caution

Sterilizing sprays

**Sprays can seep into the units.**

- ◆ Use other sterilization methods.

## Technical Data

Active range	Approximately 5 m around the receiver mounted to the stand.
Charging time	Approx. 2 h
Operating time with full batteries	Approx. 12 h
Frequency range	2402 MHz - 2480 MHz
Modulation	GFSK
RF Power	0 dBm
RF emissions CISPR 11	Compliance: Group 2  The deployment of Wireless Remote Control in combination with x-ray systems changes the classification of Artis from compliance group 1 to compliance group 2.

### Local Contact Information In Germany

Siemens AG  
Medical Solutions  
Angiography, Fluoroscopic and  
Radiographic Systems  
Siemensstr. 1  
DE-91301 Forchheim  
Germany  
Phone: +49 9191 18-0  
[www.siemens.com/medical](http://www.siemens.com/medical)

[www.siemens.de/healthcare](http://www.siemens.de/healthcare)

### Global Business Unit

Siemens AG  
Medical Solutions  
Angiography, Fluoroscopic and  
Radiographic Systems  
Siemensstr. 1  
DE-91301 Forchheim  
Germany  
Phone: +49 9191 18-0  
[www.siemens.com/medical](http://www.siemens.com/medical)

### Legal Manufacturer

Siemens AG  
Wittelsbacherplatz 2  
DE-80333 Muenchen  
Germany

Original Language:  
English