

# 1 Remote Scan Control

The main interaction device in the examination room is the Remote Scan Control (RSC).



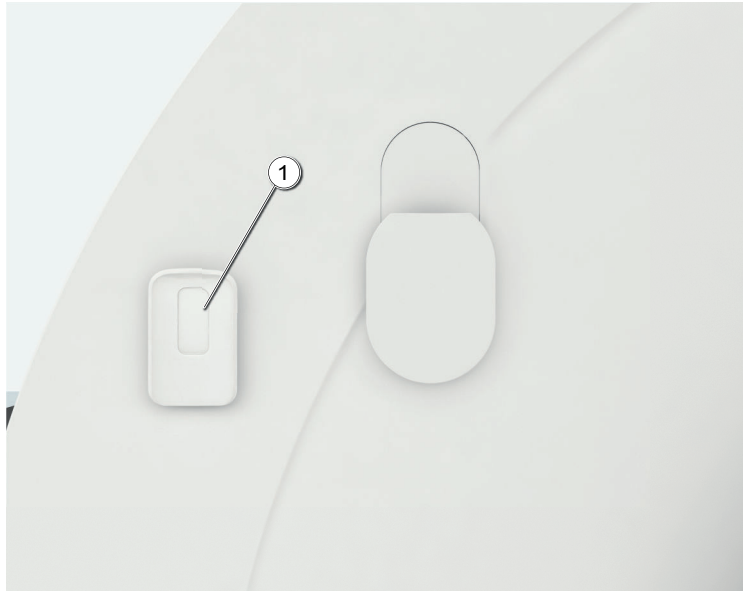
## WARNING

Wrong handling of batteries!

**Electric shock or burn from high short-circuit current.**

- ◆ Observe proper precautions.
- ◆ Servicing should be performed by qualified service personnel knowledgeable of batteries and required precautions.
- ◆ Keep unauthorized personnel away from batteries.

A wired RSC is a standard configuration and is connected via a cable to the system. Optionally, you can also have a wireless one. The RSC can be put on or taken off from the cradle on the gantry.



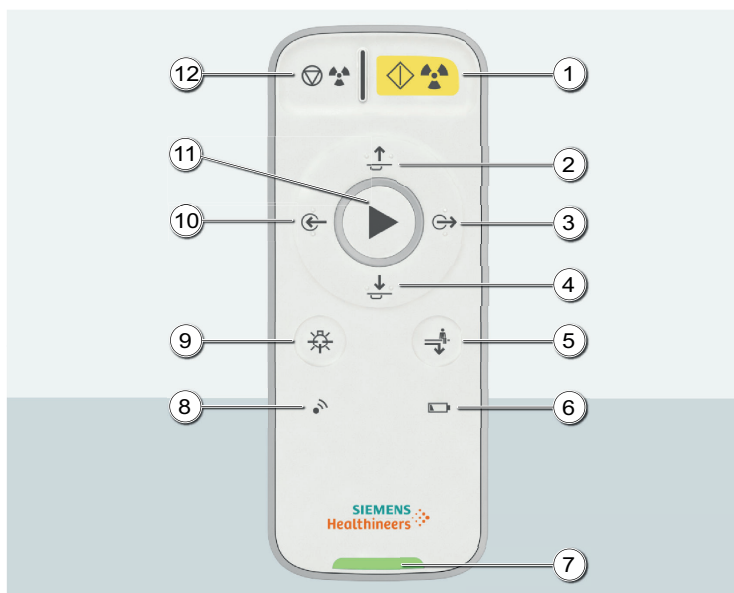
(1) Cradle for Remote Scan Control

To avoid unintended activation of any key, the RSC is designed with a dead man's switch. This switch needs to be activated to enable any of the other keys on the device. The dead man's switch is activated when the user holds the RSC or the RSC is placed on the cradle of the gantry. In other situations, the switch is deactivated.



Do not place the Remote Scan Control on the patient or the patient table!

## 1.1 Wireless Remote Scan Control



- (1) **Start** key: Press this key to trigger a scan (not active if neither an in-room monitor nor a tablet is installed). The X-ray indicator is illuminated when ready for a scan or during the scan.
- (2) **Feed Up** key: Press this key to move the patient table up (not active if the table does not support this motion).
- (3) **Feed Out** key: Press this key to move the patient table out of the gantry.
- (4) **Feed Down** key: Press this key to move the patient table down (not active if the table does not support this motion).
- (5) **Unload** key: Use this key to unload a patient.
- (6) **Low battery** indicator
- (7) **Pairing label**: Identical labels on the wireless RSC and the gantry enable you to identify if they are paired to function together.
- (8) **Out of Range** indicator
- (9) **Light Marker** key: Press this key to turn on or off the light marker

- (10) **Feed In** key: Press this key to move the patient table into the gantry.
- (11) **Move** key: Press this key to move the table to the preselected scanning position or tilt the gantry to the next measuring position.
- (12) **Suspend** key: Press this key to hold the scan procedure. This is the preferred method for interrupting a scan before completion. You should not use the **STOP** key for this purpose.

With a wireless RSC, you can unload a patient from within the gantry while moving from the control room to the examination room. You can put the wireless RSC in your pocket with the clip on the back.



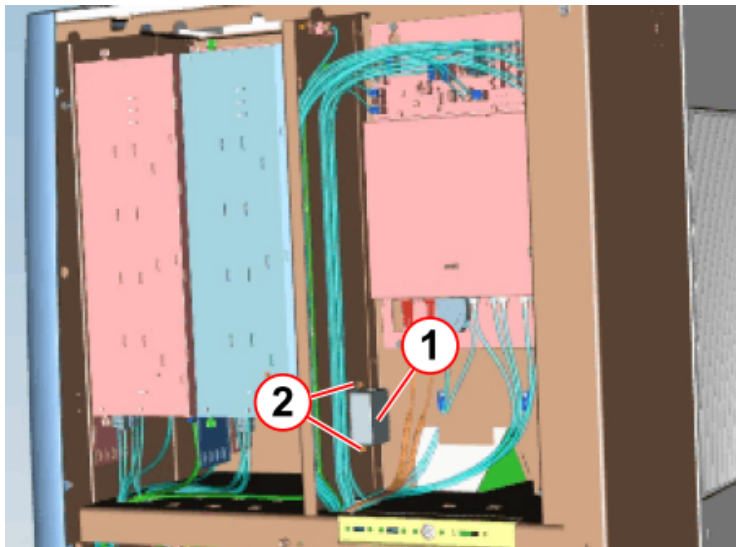
The wireless RSC is limited to certain operating range. The **Out of Range** indicator blinks when you are at the limit of the operating range. And it turns to red when you are out of the operating range. The connection is turned off.

### 1.1.1 Remote control wireless receiver

The Remote Control wireless receiver is a device which is installed in CT gantry. It can be connected to the remote control wireless via bluetooth and also can be connected with CT system via CAN bus. The wireless Remote Control receiver contains a PCB board and a wireless transmitter. The RF module used in device is TI CC2540 that is BLE 4.0 technology.



The Remote Control wireless receiver is located inside the CT gantry.



- (1) Position of RMC wireless
- (2) Position of nuts

### 1.1.2 Legal statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.



This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- l'appareil ne doit pas produire de brouillage, et
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

### 1.1.3 Technical data

The Remote Control wireless is a device for in-room manual movement and scan operation. It can be connected via wireless to the system. The wireless Remote Control contain a hand operator (including housing, all function buttons, batteries and wireless transmitter) and a master board (wireless receiver located in system and connected to system board).

| Part No.             | 11061360   | 11061366                                 |
|----------------------|--|--|
| Material description | Remote control wireless  | Remote control wireless receiver         |
| Function             | Control the function of laser/X-ray and movement of CT table and also communicate with wireless remote control receiver. | Communication with CT and remote control |
| Technology           | BLE4.0   | BLE4.0                                   |
| Transmit/receive     | Transmit/receive   | Transmit/receive                         |
| Frequency            | 2.4 GHz  | 2.4 GHz                                  |
| Operation range      | 3- 5 meters  | 3- 5 meters                              |
| Modulation           | GFSK   | GFSK                                     |

| Part No.       | 11061360        | 11061366        |
|----------------|-----------------|-----------------|
| Frequency band | 2402 - 2480 MHz | 2402 - 2480 MHz |

### 1.2 Wired Remote Scan Control



The wired RSC has the same function keys as the wireless one, except for the **Out of Range** indicator and the **Power Off** indicator.