



SO TOUCH

Remote control for bolus  
injections

User's manual (English)

Rev 1.02.00 – 15/07/2020

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## About this manual

This user's manual is intended for you, who are a patient or a healthcare professional. It contains all the information required for the safe and effective use of the SO-TOUCH remote control. Regardless of your experience, please read the whole manual carefully before you begin to use the SO-TOUCH remote control. This user's manual should be kept available for future use. If in doubt or if any of the information in this manual is not clear, please contact user support (contact details on back of this manual).

For the safe and correct use of the SO-TOUCH remote control, please pay particular attention to the following points in this user's manual:

### Warning

- A warning message indicates safety information which, if ignored, may damage SO-TOUCH, compromise the quality of the treatment or cause serious injury.

### Comment

- A comment provides information for optimal and efficient operation of SO-TOUCH.

## Important notice

### Comment

- For assistance if required with setting up or using the remote control, please contact France Développement Électronique (contact details on back of this manual).
- If unanticipated operation or events occur, please contact France Développement Électronique (contact details on back of this manual).
- The training materials for using the remote control are freely available. To obtain them, please contact France Développement Électronique (contact details on back of this manual). We recommend one hour of training, to be renewed every other year.
- The identification of the remote control's software (version/revision number) is freely available. To obtain it, please contact France Développement Électronique (contact details on back of this manual).

 **Warning**

- The medical personnel, home care giver or clinician shall train those who use SO-TOUCH at home. Use of the remote control by an untrained user may cause malfunctioning of SO-TOUCH, or inappropriate functioning that may cause serious injury to the patient.
- Do not sterilize any part of the remote control, as doing so could damage it. Damage to SO-TOUCH may cause a malfunction and result in serious injury to the patient.
- Take care to dispose of the packaging and any other electronic components in accordance with the applicable environmental protection regulations.
- In order to keep the remote control safe from damage, keep it out of the reach of unattended children and pets. Damage to SO-TOUCH may cause a malfunction and result in serious injury to the patient.
- Do not use the remote control close to sources of heat, such as a fireplace or a radiator heater. Exposure to intense heat may cause malfunctioning that could result in a bolus request being sent to the infusion pump unintentionally, with serious consequences for the patient's health.
- Do not use the remote control close to sources of humidity, such as a kettle or a nebulizer. Exposure to high levels of humidity may cause malfunctioning that could result in a bolus request being sent to the infusion pump unintentionally, with serious consequences for the patient's health.
- If the remote control falls or sustains an impact, make sure immediately that it is not damaged. Never use the remote control if you see any cracks or other damage. Damage to the remote control may cause a malfunction and result in serious injury to the patient.
- SO-TOUCH complies with the electromagnetic compatibility standard IEC 60601-1-2:2014 (Ed. 4) and can therefore operate correctly with other medical devices that also comply with the standard. In order to avoid electromagnetic interference that could affect the working of the remote control, do not use the remote close to powerful sources of electromagnetic interference. Powerful electromagnetic interference can cause SO-TOUCH to malfunction and result in serious injury to the patient.
- SO-TOUCH is not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide. Using SO-TOUCH in the presence of such mixtures may cause an explosion or fire and result in serious injury to the patient.

- Do not expose the remote control to therapeutic levels of ionizing radiation, as this could permanently damage its electronic circuits. Exposure to ionizing radiation can cause SO-TOUCH to malfunction and result in serious injury to the patient.
- Do not expose the remote control to strong magnetic fields, as this could permanently damage its electronic circuits. Exposure to a magnetic field can cause SO-TOUCH to malfunction and result in serious injury to the patient.
- Do not expose the remote control to high levels of vibrations or acoustic energy, as this could permanently damage its electronic circuits. Exposure to acoustic energy or vibrations can cause SO-TOUCH to malfunction and result in serious injury to the patient.
- Keep the remote control away from sources of electrostatic discharge, as this could permanently damage its electronic circuits. Exposure to sources of electrostatic discharge can cause SO-TOUCH to malfunction and result in serious injury to the patient.
- Do not use the remote control during MRI exams, as this could permanently damage its electronic circuits. Using it during an MRI exam can cause SO-TOUCH to malfunction and result in serious injury to the patient.
- Do not use any accessories, spare parts or materials not described in this manual, with the remote control. Such use can damage the remote control and cause it to malfunction. Malfunctioning of SO-TOUCH can result in serious injury to the patient.
- To reduce the risk of malfunction, keep the remote control more than one meter away from wireless communication devices, such as wireless home network devices, cell phones, cordless phones and their bases and walkie-talkies. Malfunctioning of SO-TOUCH can result in serious injury to the patient.
- Keep the remote control away from strong sources of light, as this could permanently damage the mechanical properties of its housing. Exposure to a bright source of light can cause SO-TOUCH to malfunction and result in serious injury to the patient.

## Description of the remote control

SO-TOUCH is a remote control used as an accessory with the SO-CONNECT PAR and SO-CONNECT ambulatory infusion pumps in Parkinson's mode. It is used to remotely request the pump to make bolus injections, with no need to handle the pump or remove it from its case.

The SO-TOUCH remote control is designed to be used by ambulatory patients at home, as well as by healthcare professionals in clinical settings. All of the functions detailed below (pairing, bolus requests) can be used safely by all of these users, with the exception of the maintenance operations, which are reserved for personnel approved by France Développement Électronique.

### Comment

- France Développement Électronique shall only be liable for the safety and proper working of the remote control if it is used in accordance with these instructions and if any repairs or modifications have been carried out exclusively by France Développement Électronique.

## Contraindications

















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SO-TOUCH must not be used in patients with severe cognitive impairment or in patients with psychotic symptoms or with physical impairments such as paralysis, accidents or malformation, or in patients lacking the required maturity (children).

Sufficient eyesight is needed to identify the remote control's visual cues.

## Symbols and labelling

The table below provides the meanings of the symbols used on the labels of the remote control and its packaging.

Symbol	Description	Location
	Sending a bolus request to the pump.	- Remote control
	Status of the remote control's remaining battery power.	- Remote control
	Status of the bolus request.	- Remote control
	Reference in the manufacturer's catalogue.	- Remote control - Packaging
	Serial number.	- Remote control - Packaging
	Date of manufacture.	- Remote control - Packaging
	Manufacturer.	- Remote control - Packaging
	Caution! Refer to the accompanying documentation for safety instructions.	- Remote control - Packaging
	Refer to the instructions for use.	- Remote control - Packaging
	Type BF medical device (insulated from the patient, not protected from defibrillation).	- Remote control
	Disposal of Waste Electrical and Electronic Equipment (WEEE). This symbol shows that waste batteries and electronic equipment may not be disposed of with household waste, but collected separately.	- Remote control
	CE mark.	- Remote control - Packaging
RoHS	Product compliant with Directive 2002/95/EC aimed at limiting hazardous substances.	- Remote control
IPX2	Protection rating.	- Remote control
	Store in a dry place, away from humidity.	- Remote control - Packaging
	Fragile.	- Packaging
	Storage temperature range.	- Packaging
	Storage humidity range.	- Packaging

## Compliance and classification

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SO-TOUCH is classified as follows:

- ▶ Class IIb medical device
- ▶ Type BF applied part
- ▶ Classified for continuous operation

SO-TOUCH has an IPX2 rating (protected against dripping water for a maximum incline of 15°).

The entire housing of the remote control is an applied part.





- **Bolus button**  
The Bolus button is used for remotely sending a bolus request to the SO-CONNECT PAR or SO-CONNECT pump.
- **Status indicator**  
The status indicator shows the status of any bolus request made with the remote control.
- **Battery power indicator**  
The battery power indicator turns yellow when the remote control is being used while the remaining battery power is low.

## Using the remote control

### Using the remote control for the first time

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As the SO-TOUCH remote control is delivered ready to use, no pre-startup action is needed. To make sure it's ready to use, press on the bolus button of the remote control for more than 8 seconds. The status light should turn green for a short time and then it should turn off.

#### Comment

- If the battery power indicator light turns on when you check if the remote control is operational, contact user support (contact details on back of this manual).
- The remote control cannot be turned off manually. After use, it will turn itself off after a few seconds. In case of malfunction, use the pump's controls to stop the infusion immediately and contact user support (contact details on back of this manual).

## Compatibility

The SO-TOUCH remote control is only compatible with SO-CONNECT PAR ambulatory infusion pumps and with SO-CONNECT pumps when they are configured in Parkinson's mode, when the "Remote Control" option is enabled.

### Comment

- Only versions 2.5 and later of SO-CONNECT software are compatible with the SO-TOUCH remote control. If your infusion pump has an earlier software version, contact France Développement Électronique for an update (contact details on back of this manual).
- Only infusion pumps with the "Remote Control" option enabled are compatible with the SO-TOUCH remote control. If your infusion pump does not have this option, contact France Développement Électronique for an update (contact details on back of this manual).

### Warning

- Whenever a new infusion is carried out with a pump used with a remote control, check that the pump and the remote control have been paired. Check the pump's manual for more details.

## Pressing correctly on the Bolus button

In order to prevent unintentional pressing on the remote control's bolus button (for example, if it is kept in a pocket), the remote control features a safety mechanism. To be taken into account and considered valid by the remote control, the bolus button has to be pressed for more than 2 seconds and for less than 4 seconds.

The status indicator light shows when the button can be released in order for the bolus request to be valid. When the button is kept pressed down for more than 2 seconds, the status indicator turns green and then turns off if the button is kept pressed in for more than 4 seconds. This means that for the bolus request to be valid, the button must be released while the status indicator is still green.

### Comment

- Pressing on the Bolus button too often may overuse the remote control and deplete its battery power. The Bolus button should only be pressed when it is strictly necessary to do so.

## Pairing with an infusion pump

In order to ensure that any bolus requests are sent to the correct pump, the remote control must be paired with the correct pump before being used during an infusion.

In order to carry out the pairing, go to the pairing function of the pump (maintenance menu).

When the pump's screen indicates that pairing is underway, press correctly on the remote control's Bolus button. The remote control will try to pair with the pump for about 40 seconds.

Once the pump and remote control have been paired, only bolus requests from this remote control will be recognized by the pump for future infusions. As long as no new pairing has been done and the pump has not been reset, the pump and the remote control are paired and do not need to be paired again.



Flashing **blue** status indicator

The pairing request is being sent.



Steady **green** status indicator  
(for 10 seconds)

The pairing request has been accepted by the pump. The pairing attempt was successful.



Flashing **yellow** status indicator and battery power indicator  
(for 10 seconds)

Pairing request made. See the pump's screen to finish pairing.



### Comment

- Make sure that no other SO-CONNECT infusion pump is nearby while pairing is underway. The presence of another pump nearby may cause the pairing to fail.

## Bolus dose request

While an infusion is underway, when the remote control is paired with the pump, a bolus request can be made by pressing correctly on the Bolus button of the remote control. The remote control sends the bolus request to the pump for about 40 seconds.



Flashing **blue** status indicator

The bolus request is being sent.



Steady **green** status indicator  
(for 10 seconds)

The bolus request has been accepted by the pump. The injection of the bolus dose should begin.



Steady **yellow** status indicator  
(for 10 seconds)

The bolus request has been denied by the pump. Reasons for denial include:

- No bolus programmed for this infusion
- Maximum number of bolus doses programmed for this infusion already reached
- Lockout interval underway.



Flashing **yellow** status indicator and battery power indicator  
(for 10 seconds)

Bolus request period expired with no response from the pump.

### **Warning**

- In order to prevent unintentional bolus delivery, we strongly recommend that you set a lockout interval for bolus doses programmed on the SO-CONNECT infusion pump, when it is being used in conjunction with the SO-TOUCH remote control. Unintentional bolus doses can cause serious injury to the patient.

## Evaluation of the remote control's remaining battery power

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After pressing on the Bolus button, whether this is done correctly or not, if the remote control's remaining battery power is low, the battery power indicator turns on steadily in yellow for 10 seconds. From the moment the battery power indicator is on for the first time, the remaining battery power of the remote control will be approximately 2 months in normal use (pressing correctly on the Bolus button 5 times a day).

When the battery power indicator turns on, contact user support to have the battery changed on the remote control (contact details on back of this manual).

### Warning

- When the battery power indicator turns on, check to make sure that any bolus requests have been processed by the pump. Unplanned stopping of the remote control can result in unprocessed bolus requests that are unreported, potentially causing serious injury to the patient.

### Comment

- When the battery power indicator is on, the remote control's remaining battery power is considered to be low. This means that the remote control may stop working at any time due to a lack of power. Contact user support as soon as possible to have your remote control serviced (contact details on back of this manual). Unplanned stopping of the remote control can result in unprocessed bolus requests that are unreported, potentially causing serious injury to the patient.

## Maintenance, support, disposal and guarantee

### Cleaning and disinfecting the remote control

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Clean the remote control regularly to avoid dust buildup. To do so, use a soft damp cloth to clean the outside of the remote control.

#### Warning

- Never clean the remote control while it is paired with a pump during an infusion. Cleaning could lead to an unintentional bolus request and cause serious injury to the patient.
- During cleaning, avoid accidentally pressing on the Bolus button. Pressing on it could lead to an unintentional bolus request and cause serious injury to the patient.
- Do not use household or industrial cleaning solutions, chemicals, solvents, bleach, scouring pads or sharp instruments to clean SO-TOUCH.
- Never put the remote control in the dishwasher.
- The remote control must not be sterilized.
- Do not use cleaning and disinfection products other than those recommended in this manual. Non-recommended products may damage the remote control.

### Inspecting the remote control

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It is crucial for the remote control to be in good working order to ensure proper functioning during infusions. Before every new infusion using the pump together with the remote control, press for more than 8 seconds on the Bolus button of the remote control. The status light should turn green for a short time and then it should turn off.

Check your remote control regularly:

- Make sure that the housing of the remote control is not damaged or cracked. If this is not the case, contact user support (contact details on back of this manual).
- Make sure the adhesive strip and label of the remote control are not damaged and are still legible. If this is not the case, contact user support (contact details on back of this manual).

## Maintenance

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SO-TOUCH does not require any special maintenance by its users. Maintenance operations must be performed by personnel approved by France Développement Électronique. In the event of a malfunction, please contact user support (contact details on back of this manual).

### Warning

- No servicing or maintenance must be carried out on the remote control while it is paired with a pump during an infusion. Performing servicing or maintenance during an infusion could lead to an unintentional bolus request and cause serious injury to the patient.
- If the battery of the remote control is changed by personnel without appropriate training or not approved by France Développement Électronique, fire or explosion could result, causing injury to or death of the patient or user.
- The remote control must not be modified by personnel who are not approved by France Développement Électronique.
- The remote control must be repaired by qualified, trained technicians only.
- Unauthorized modifications may adversely affect the operation of the remote control and result in the patient's or user's injury or death.

## Maintenance instructions regarding electromagnetic interference

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In order to ensure that SO-TOUCH remains safe from electromagnetic interference, a functional test should be carried out at least once a month. To do so, press for more than 8 seconds on the Bolus button of the remote control. The status light should turn green for a short time and then it should turn off.

As SO-TOUCH does not have shielding or grounding, special maintenance is required.

If SO-TOUCH is used near (less than 1.5 km away, for example) to AM, FM or broadcasting antennas, the proper functioning of the remote control must be checked from time to time during an infusion.

## Damage to the remote control in the event of a fall, impact or contact with water

The remote control may be damaged in the event of a fall, impact or contact with water.

If your remote control comes in contact with water, please follow the instructions below:

- Pause the infusion of the pump and disconnect the pump.
- Clean the outside of the remote control with a soft, dry cloth.
- Do not use hot air to dry the remote control. For example, do not use a hair dryer. Doing so could damage the remote control's housing.
- Do not reuse the remote control until its housing is completely dry.

It is crucial to check the remote control immediately, if it comes in contact with other liquids or chemicals, such as cleaning liquids, alcohol, beverages, oil or grease. Clean the remote control immediately if it has come into contact with such materials.

### Warning

- Inspect the remote control immediately in the event of a fall or impact.
- Do not use the remote control if you see any cracks or other damage. Water, dust or other foreign matter could get into the remote control and cause it to malfunction, resulting in serious injury to the user or patient.
- The SO-TOUCH remote control is not watertight. Do not immerse it in water or other liquids and do not let it come into contact with water or other liquids. Remember to set it aside before you have a bath or a shower, enter a Jacuzzi or go swimming.
- Avoid excess humidity (e.g. sauna), which could damage the remote control.



## Storing the remote control

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If you do not intend to use the remote control for a long period of time, or if you intend to transport it without using it, it should be stored appropriately so as to avoid any subsequent malfunctioning. To store the remote control, simply put it in its original box.

### Warning

- After an extended period of time without using the remote control, check it as described in this section. An extended period without using the remote control can cause dust and fluff to build up, which could cause malfunctioning, leading to serious injury to the patient.

## Disposal

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When it is in use, the remote control is liable to come in contact with blood, and it could thus be a source of infection. As a result, it is not within the scope of the European Directive 2002/96/EC and cannot be disposed of with other electronic devices. If necessary, return the remote control to France Développement Électronique for disposal.

Under international regulations, medical devices require controlled destruction. Please act in compliance with local rules.

### Warning

- Never dispose of the remote control in household waste. Disposal of the remote control in household waste can cause a risk of infection and environmental pollution.

## Service life of the remote control

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SO-TOUCH has a life of 3 years from the date of purchase. For safety reasons, it may not be used after that time.

### Warning

- Do not use the remote control after 3 years of service life. After that time, the remote control's functions cannot be guaranteed. This may cause malfunctioning and result in serious injury to the patient.

## Guarantee conditions

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France Développement Électronique hereby guarantees that the product is free from all material or workmanship defects for a period of 2 (two) years from the date of purchase.

If any material or workmanship defects are found during said guarantee period, France Développement Électronique shall be responsible for repairing or replacing the defective components on the terms and within the time frame stated below, without charging for labor or spare parts; the customer shall pay the cost of sending the device to the After Sales Service department of France Développement Électronique.

Conditions:

1. The guarantee shall only come into effect if the defect found is reported within the time provided in the guarantee.
2. This guarantee does not cover costs and/or defects resulting from product modifications or adjustments made without the prior written permission of France Développement Électronique.  
France Développement Électronique shall not be liable towards the buyer or any other party for any injury or damage that may be sustained due to the improper use of the product, use in a manner for which it is not designed, or if any of the instructions are not followed.  
The buyer particularly agrees that France Développement Électronique shall have no liability in respect of third party claims relating to the above.
3. This guarantee may be voided if the model or serial number stated on the product have been modified, erased, removed or made illegible in any way.
4. The guarantee does not cover:
  - a. Damage due to improper use, including but not only:
    - i. Power supply errors,
    - ii. Use of the product for purposes other than those intended,
    - iii. Repairs by unapproved personnel or the customer,
  - b. Fortuitous and accidental events such as falls, entry of liquid,
  - c. Natural events and fraudulent or deliberate acts,
  - d. Accessories supplied with the remote control.
5. France Développement Électronique agrees to repair the device for a period that does not exceed 2 (two) years from the date of purchase.  
After said period, France Développement Électronique shall have no responsibility for repairs. France Développement Électronique shall not be liable towards the buyer or to any other party for damage resulting from the use of the device 2 (two) years after the date of purchase.
6. After the expiry of the guarantee period, any support from France Développement Électronique shall be charged, including the cost of replacement parts, labor and transport calculated on the basis of applicable rates.
7. France Développement Électronique shall not be liable towards the patient and/or any third party for any health problem and/or inconvenience relating to the period for which the device is under repairs.
8. France Développement Électronique shall not be liable towards the patient or any party for any problem and/or delay relating to the shipment of the device.

## Technical Specifications

### Specifications of the remote control

Size of the remote control	77 x 44 x 18 mm
Weight of the remote control	35 g (battery included)
Battery	Button cell CR2477 3V DC 1000mAh
Battery life	3 years <sup>(1)</sup>
Low battery power reporting time	Immediately after pressing on the Bolus button.
Protection rating	IPX2
Operating conditions of the remote control	5°C / +40°C 5% / 93% relative humidity without condensation 700 hPa / 1060 hPa
Storage and transport conditions of the remote control	5°C / +50°C 5% / 93% relative humidity without condensation 700 hPa/1060 hPa
Bluetooth Low Energy interface	Frequency band: 2.4 GHz Radio power: -24 dBm Software version: v1.00.00 (SoftDevice S132 v2.0.0-7)

Upon request, France Développement Électronique provides the circuit board layouts, lists of components, descriptions, calibration instructions and any other information needed by maintenance personnel to repair the parts of electromagnetic devices that the manufacturer has designated as being repairable by maintenance personnel.

- (1) The battery life has been checked in the laboratory under the following operating conditions:
- A single pairing request
  - 5 bolus requests per day.

## Electromagnetic compatibility

The information contained in this section is provided as recommendations for the proper functioning of the remote control in respect of electromagnetic compatibility. The tables presented in this section refer to the criteria of the standard IEC 60601-1-2.

### Warning

- Using accessories, transducers and/or cables other than those specified or supplied by France Développement Électronique may cause an increase in this device's electromagnetic emissions or a decrease in its immunity to electromagnetic interference and result in improper operation that may cause serious injury to the patient.
- Keep portable RF communication devices (including peripherals such as antenna cables and external cables) more than 30 cm (12 inches) away from all parts of the SO-TOUCH remote control, including the cables specified by France Développement Électronique. Otherwise, the performance of SO-TOUCH could be adversely affected.

### Advice and declaration of the manufacturer: electromagnetic emissions

The SO-TOUCH remote control is intended for use in the electromagnetic environment specified below. The user of the SO-TOUCH remote control must make sure that it is used in such an environment.

Emission test	Compliance	Electromagnetic environment - Tips
RF emissions CISPR 11	Group 1	SO-TOUCH only uses RF energy for its internal working. As a result, its RF emissions are very low and not liable to interfere with electrical equipment in the vicinity.
RF emissions CISPR 11	Class B	Note (1)
Harmonic emissions IEC 61000-3-2	Not applicable	Not applicable

Note (1): SO-TOUCH is suitable for use in all establishments, including homes, with the exception of installation close to high-frequency electrosurgical equipment and close to the controlled access zone of a magnetic resonance system, where the intensity of electromagnetic interference is high.

### Advice and declaration of the manufacturer: electromagnetic immunity

The SO-TOUCH remote control is designed for use in the electromagnetic environment specified below. The user of the SO-TOUCH remote control must make sure that it is used in such an environment.

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment - Tips
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV (in contact) ±8 kV (in the air)	± 8 kV contact ± 15kV air	Floors finished in wood, concrete or tiles. If the floors are in synthetic material, the relative humidity must be at least 30 %.
Radiated RF IEC 61000-4-3	3 V/m from 80 MHz to 2.7GHz Wireless RF frequencies 9 to 28 V/m AM Modulation 80%; 1kHz	10 V/m	Note (1)

Note (1): Portable and mobile RF communication devices must not be used at a distance from the components of the SO-TOUCH remote control that is below the recommended distance, calculated on the basis of the equation applicable to the frequency of the emitter.

Recommended distance:

- $d = (3/3.5)\sqrt{P}$
- $d = (3/3.5)\sqrt{P}$  from 80 MHz to 800 MHz
- $d = (7/10)\sqrt{P}$  from 800MHz to 2.5GHz

where P is the maximum rated output power of the emitter, in watts (W) as indicated by the emitter manufacturer and d is the recommended distance in metres.

The intensities of the fields from fixed RF emitters as determined by the electromagnetic reading on the site must be below the compliance level in each reference range. Interference may occur close to equipment bearing the symbol:



#### **Warning**

- When the SO-TOUCH remote control is subjected to electromagnetic interference, the essential performance of the following functions can be lost or adversely impacted:
  - Sending bolus dose requests to the pump remotely
  - Low battery power indication

A loss or alteration of essential performance can result in serious injury to the patient.

### **Recommended separation distances from mobile/portable RF communication equipment**

SO-TOUCH has been designed for use in an electromagnetic environment where the emitted RF interference is controlled. The user of the remote control can limit

electromagnetic interference by keeping a minimum distance between the remote control and mobile and portable RF communication equipment as recommended below, depending on the maximum power of the emitting equipment.

Maximum rated power of the emitter (W)	Separating distance in metres (m) depending on the emitter frequency		
	150 KHz to 80 MHz $d = 1,2\sqrt{p}$	80 MHz to 800 MHz $d = 1,2\sqrt{p}$	800 MHz to 2.5 GHz $d = 2,1\sqrt{p}$
0.01	0.12	0.12	0.21
0.1	0.38	0.38	0.66
1	1.2	1.2	2.1
10	3.8	3.8	6.64
100	12	12	21

If the maximum output power of the transmitter is not indicated in the table, the recommended separating distance  $d$  in metres (m) may be calculated with the help of the equation applicable to the frequency of the transmitter, where  $p$  is the maximum output power in watts (W) according to the emitter manufacturer.

At 80 MHz and 800 MHz, the distance is applied to the highest frequency range.

These indications are not universal. Absorption and reflection by structures, objects and individuals affect electromagnetic propagation.





*France Développement Electronique  
46 Rue du Zornhoff  
67700 Monswiller  
FRANCE*

*Contact: Tel. +33 (0)3 88 91 87 55*



*SO-TOUCH IFU v1.02.00 (EN)*



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