



## Testo – Smart Probes

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Alle Smart Probes funktionieren nur in Verbindung mit einem mobilen Endgerät und der App testo Smart Probes.

# 1 Sicherheit

## 1.1. Sicherheit bei testo 510i und testo 605i



### WARNUNG

Magnetisches Feld

**Kann gesundheitsgefährdend für Träger von Herzschrittmachern sein.**

- > Mindestabstand von 10 cm zwischen Herzschrittmacher und Gerät einhalten.

## 1.2. Sicherheit bei testo 549i



### WARNUNG

Verletzungsgefahr durch unter hohem Druck stehende, heiße, kalte oder giftige Kältemittel / Medien!

- > Nutzung nur durch qualifiziertes Personal.
- > Schutzbrille und Schutzhandschuhe tragen.
- > Vor dem Beaufschlagen des Messgeräts mit Druck: Messgerät immer fest mit dem Druckanschluss verbinden
- > Zulässigen Messbereich einhalten (0...60 bar). Dies besonders bei Anlagen mit Kältemittel R744 beachten, da diese oft mit höheren Drücken betrieben werden!

## 1.3. Sicherheit bei testo 805i



### VORSICHT



**Laserstrahlung! Laser Klasse 2**

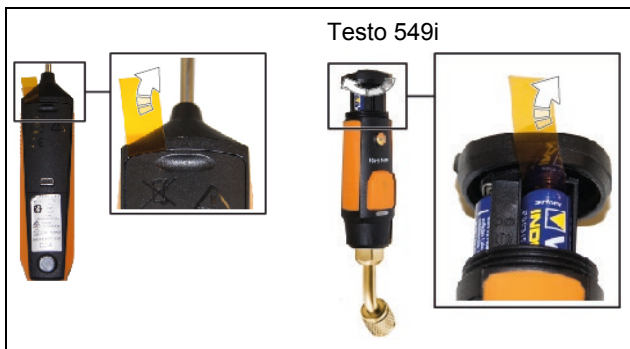
- > Nicht in den Laserstrahl blicken!

# 2 Übersicht



## 3 Ein-/ausschalten

### 3.1. Einschalten



1. Ziehen Sie die Folie aus dem Batterie-Fach.
  2. Drücken Sie auf die Taste.
- Die Smart Probes schalten sich ein.

### 3.2. Ausschalten

1. Drücken Sie lang die Taste.
- Die Smart Probes schalten sich aus.

## 4 Bluetooth®-Modul

### Bluetooth®-Verbindung herstellen

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Um eine Verbindung via Bluetooth herstellen zu können benötigen Sie ein Tablet oder Smartphone auf dem Sie die Testo-App Smart Probes bereits installiert haben.

Die App erhalten Sie für iOS Geräte im AppStore oder für Android-Geräte im Play Store.

Kompatibilität:

- Erfordert iOS 8.3 oder neuer / Android 4.3 oder neuer
- erfordert Bluetooth 4.0

### Bluetooth®-Zulassung

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Die Verwendung des Funk-Moduls unterliegt den Regelungen und Bestimmung des jeweiligen Einsatzlandes und das Modul darf jeweils nur in den Ländern eingesetzt werden, für welches eine Länderzertifizierung vorliegt.

Der Benutzer und jeder Besitzer verpflichten sich zur Einhaltung

dieser Regelungen und Verwendungsvoraussetzungen und erkennen an, dass der weitere Vertrieb, Export, Import etc., insbesondere in Länder ohne Funk-Zulassung, in seiner Verantwortung liegt.

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## 5 LED Status

LED Status	Bedeutung
Rot blinkend	Niedriger Batteriestand
Gelb blinkend	<ul style="list-style-type: none"><li>• Smart Probe ist eingeschaltet.</li><li>• Smart Probe sucht BT-Verbindung, ist aber nicht verbunden.</li></ul>
Grün blinkend	<ul style="list-style-type: none"><li>• Smart Probe ist eingeschaltet.</li><li>• Bluetooth ist verbunden.</li></ul>

## 6 Messwert übertragen

- ✓ Die Smart Probes sind eingeschaltet und per Bluetooth mit Ihrem mobilen Endgerät verbunden.
- 1. Die Messwerte der Smart Probe werden automatisch in der Standardanzeige dargestellt.
- 2. Drücken Sie die Taste.
  - Der aktuell vorliegende Messwert wird gehalten.
- 3. Drücken Sie die Taste erneut.
  - Das Gerät zeigt wieder die aktuellen Messwerte.



Diese Inbetriebnahme-Anleitung beschreibt die grundlegenden Bedienschritte.

Für den sicheren Umgang mit dem Produkt und für detaillierte Informationen beachten Sie bitte die Bedienungsanleitung unter: [www.testo.com/download-center](http://www.testo.com/download-center)

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All Smart Probes only work in combination with a mobile terminal and the testo Smart Probes App

# 1 Safety

## 1.1. Safety with testo 510i and testo 605i



### WARNING

Magnetic field

**May be harmful to those with pacemakers.**

- > Keep a minimum distance of 10 cm between pacemaker and instrument.

## 1.2. Safety with testo 549i



### WARNING

Risk of injury caused by pressurized, hot, cold or toxic refrigerants/media!

- > Only to be used by qualified staff.
- > Wear protective goggles and safety gloves.
- > Before applying pressure to the measuring instrument: always fix the instrument tightly onto the pressure connection.
- > Comply with the permissible measuring range (0 to 60 bar). Pay particular attention to this in systems with R744 refrigerant, since these are frequently operated with higher pressures!

## 1.3. Safety with testo 805i



### CAUTION



**Laser radiation! Class 2 laser**

- > Do not look into the laser beam!

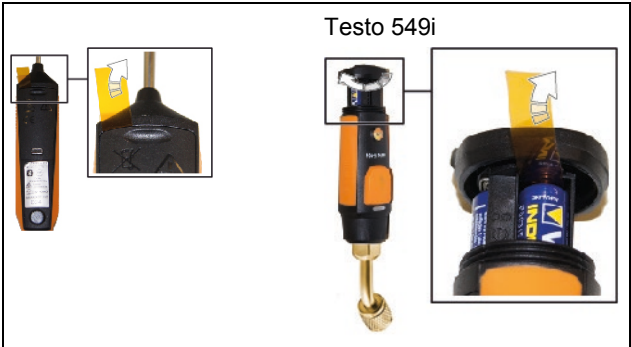
## 2 Overview



1	Measuring unit	3	Key
2	LED	4	Battery compartment (at the back)

## 3 Switching on/off

### 3.1. Switching on



1. Pull the film out of the battery compartment.
  2. Press the key.
- The Smart Probes switch on.

### 3.2. Switching off

1. Press and hold the key.
- The Smart Probes switch off.

## 4 Bluetooth® module

### Establishing Bluetooth® connection



You need a Tablet or Smartphone with the Testo Smart Probes App already installed on it to be able to establish a Bluetooth connection.

You can get the App for iOS instruments in the App Store or for Android instruments in the Play Store.

Compatibility:

- requires iOS 8.3 or later / Android 4.3 or later
- requires Bluetooth 4.0

### Bluetooth® approval



The use of the wireless module is subject to the regulations and stipulations of the respective country of use, and the module may only be used in countries for which a country certification has been granted. The user and every owner has the obligation to adhere to these regulations and prerequisites for use, and acknowledges that the re-sale, export, import etc. in particular in countries without wireless permits, is his responsibility.

## 5 LED status

LED status	Meaning
Flashing red	Low battery status
Flashing yellow	<ul style="list-style-type: none"><li>• Smart Probe is switched on.</li><li>• Smart Probe searching, but not yet connected.</li></ul>
Flashing green	<ul style="list-style-type: none"><li>• Smart Probe is switched on.</li><li>• Bluetooth is connected.</li></ul>

## 6 Transmitting reading

- ✓ The Smart Probes are switched on and connected to their mobile terminal via Bluetooth.
- 1. The Smart Probes' readings are automatically shown in the standard display.
- 2. Press the key.
  - The reading that is currently present is held.
- 3. Press the key again.
  - The instrument again displays the current readings.



These commissioning instructions describe the basic operating steps.

To find out how to handle the product safely and for detailed information, please refer to the instruction manual at:

[www.testo.com/download-center](http://www.testo.com/download-center)

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Todos los Smart Probes funcionan únicamente en combinación con un dispositivo móvil y la aplicación testo Smart Probes.

## 1 Seguridad

### 1.1. Seguridad en el testo 510i y testo 605i



#### ADVERTENCIA

Campo magnético

**Puede ser peligroso para la salud de personas con marcapasos.**

- > Mantenga una distancia mínima de 10 cm entre el instrumento y el marcapasos.

### 1.2. Seguridad en el testo 549i



#### ADVERTENCIA

¡Peligro de lesiones debido a refrigerantes / medios calientes, fríos, tóxicos o a presión!

- > Utilización únicamente a través del personal cualificado.
- > Usar gafas y guantes de protección.
- > Antes de aplicar presión al aparato de medición: conectar siempre el instrumento de medición con la conexión de presión firmemente
- > No rebasar el rango de medición admisible (0...60 bar). ¡Esto es especialmente importante en instalaciones con refrigerante R744, ya que estas están sometidas frecuentemente a presiones elevadas!

### 1.3. Seguridad en el testo 805i



#### PRECAUCIÓN



¡Radiación láser! Láser clase 2

- > ¡No mirar directamente el rayo láser!

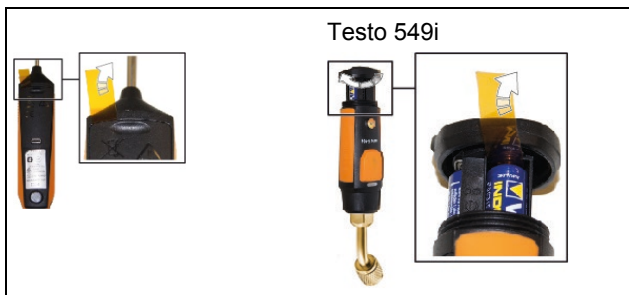
## 2 Resumen



1	Unidad de medición	3	Tecla
2	LED	4	Compartimiento de las pilas (parte posterior)

## 3 Encender/apagar

### 3.1. Encender



1. Retire la lámina del compartimiento de las pilas.
  2. Pulse la tecla.
- Los Smart Probes se encienden.

### 3.2. Apagar

1. Pulse la tecla por un largo tiempo.
- Los Smart Probes se apagan.

## 4 Módulo Bluetooth®

### Establecer una conexión Bluetooth®



Para poder conectarse a través del Bluetooth, necesita una tableta o un teléfono inteligente en el que ya ha instalado la aplicación de Testo Smart Probes.

Encontrará esta aplicación en la AppStore para los dispositivos iOS o en Play Store para los dispositivos Android.

Compatibilidad:

- Requiere iOS 8.3 o superior / Android 4.3 o superior
- Requiere Bluetooth 4.0

### Autorización Bluetooth®



El uso del módulo de radio está sujeto a las regulaciones y a la determinación del país de uso y el módulo solo puede utilizarse en los países para los que hay una certificación de país.

El usuario y el propietario se comprometen a cumplir con estas regulaciones y requisitos de uso y reconocen que la posterior comercialización, exportación, importación, etc., sobre todo en países donde no hay autorización para la transmisión por radio, es responsabilidad suya.

## 5 Estado LED

Estado LED	Significado
Parpadea en rojo	Estado de la batería bajo

Estado LED	Significado
Parpadeo en amarillo	<ul style="list-style-type: none"> <li>• Smart Probe está encendido.</li> <li>• Smart Probe está buscando pero no está conectado.</li> </ul>
Parpadeo en verde	<ul style="list-style-type: none"> <li>• Smart Probe está encendido.</li> <li>• Bluetooth está conectado.</li> </ul>

## 6 Transmitir valor medido

- ✓ Los Smart Probes están encendidos y conectados con su dispositivo móvil por Bluetooth.
- 1. Los valores medidos de los Smart Probes se visualizan automáticamente en la indicación estándar.
- 2. Pulse la tecla.
  - Se retiene el valor medido presente en el momento.
- 3. Pulse la tecla nuevamente.
  - El dispositivo muestra nuevamente los valores medidos actuales.



Este manual de puesta en marcha contiene información básica para el manejo del instrumento.

Para más información y un mejor manejo del instrumento lea por favor el manual de instrucciones en:

[www.testo.com/download-center](http://www.testo.com/download-center)



Tous les Smart Probes fonctionnent uniquement en combinaison avec un terminal mobile et l'App testo Smart Probes.

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# 1 Sécurité

## 1.1. Sécurité lors de l'utilisation du testo 510i et testo 605i



### AVERTISSEMENT

Champ magnétique

**Peut présenter des risques pour la santé des personnes portant un stimulateur cardiaque.**

- > Conserver une distance d'au moins 10 cm entre le stimulateur cardiaque et l'appareil.

## 1.2. Sécurité lors de l'utilisation du testo 549i



### AVERTISSEMENT

Risques de blessures causées par les fluides frigorigènes / produits sous haute pression, chauds, froids ou toxiques !

- > Utilisation uniquement par du personnel qualifié.
- > Porter des lunettes et des gants de protection.
- > Avant de mettre l'appareil de mesure sous pression : toujours raccorder solidement l'appareil de mesure au raccord sous pression.
- > Respecter l'étendue de mesure admissible (0 ... 60 bar). Respecter tout particulièrement ces consignes pour les installations utilisant du R744 comme fluide frigorigène ! Celles-ci sont souvent utilisées à des pressions plus élevées !

## 1.3. Sécurité lors de l'utilisation du testo 805i



### PRUDENCE



**Rayon laser ! Laser de classe 2**

- > Ne pas regarder le rayon laser !

## 2 Vue d'ensemble



1	Unité de mesure	3	Touche
2	LED	4	Compartiment à piles (au dos)

## 3 Mise en marche / à l'arrêt

### 3.1. Démarrage



1. Retirer le film du compartiment à piles.
  2. Appuyer sur la touche.
- Les Smart Probes démarrent.

### 3.2. Mise à l'arrêt

1. Appuyer longuement sur la touche.
- Les Smart Probes s'arrêtent.

## 4 Module Bluetooth®

### Etablir la connexion Bluetooth®



Pour pouvoir établir une connexion Bluetooth, vous avez besoin d'une tablette ou d'un Smartphone sur lequel l'App Testo Smart Probes est déjà installée.

L'App est disponible dans l'AppStore pour les appareils iOS et dans le Play Store pour les appareils Android.

Compatibilité :

## 5 Statut des LED

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- Requiert le système d'exploitation iOS 8.3 ou plus récent / Android 4.3 ou plus récent
  - Requiert le système Bluetooth 4.0
- 

### Homologation Bluetooth®

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L'utilisation du module radio est soumise à des réglementations et dispositions différentes en fonction du pays d'utilisation ; le module ne peut être utilisé que dans les pays pour lesquels une certification nationale existe.

L'utilisateur et chaque détenteur s'engagent à respecter ces réglementations et conditions d'utilisation et reconnaissent que toute commercialisation, exportation, importation, etc., tout particulièrement dans des pays ne disposant pas d'une homologation radio, se fait sous leur responsabilité.

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## 5 Statut des LED

Statut des LED	Signification
Rouge clignotant	Niveau des piles bas
Jaune clignotant	<ul style="list-style-type: none"><li>• Smart Probe démarré.</li><li>• Recherche d'une connexion Smart Probe, mais aucune connexion établie.</li></ul>
Vert clignotant	<ul style="list-style-type: none"><li>• Smart Probe démarré.</li><li>• Connexion Bluetooth établie.</li></ul>

## 6 Transfert des valeurs de mesure

- ✓ Les Smart Probes sont démarrés et connectés à votre terminal mobile via Bluetooth.
1. Les valeurs de mesure du Smart Probe sont automatiquement affichées dans l'affichage standard.
  2. Appuyer sur la touche.
    - La valeur de mesure actuellement disponible est gelée.
  3. Appuyer à nouveau sur la touche.
    - L'appareil affiche à nouveau les valeurs de mesure actuelles.
- 



Ces instructions de mise en service décrivent les manipulations de base de l'appareil.

Veuillez vous référer au mode d'emploi disponible à l'adresse [www.testo.com/smartprobesmanuals.html](http://www.testo.com/smartprobesmanuals.html) pour une utilisation sûre du produit et des informations détaillées.

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Tutti gli strumenti Smart Probes funzionano solo in combinazione con un terminale mobile e l'app Smart Probes di testo.

## 1 Sicurezza

### 1.1. Sicurezza con testo 510i e testo 605i



#### AVVERTENZA

Campo magnetico

**Può rappresentare un pericolo per i portatori di pace-maker.**

- > Mantenere una distanza minima di 10 cm tra pace-maker e strumento.

### 1.2. Sicurezza con testo 549i



#### AVVERTENZA

Pericolo di lesioni causato da liquidi refrigeranti/sostanze ad alta pressione, caldi, freddi o tossici!

- > Impiego solo da parte di personale qualificato.
- > Indossare occhiali e guanti di protezione.
- > Prima di pressurizzare lo strumento: collegare sempre bene lo strumento all'attacco di mandata
- > Rispettare la fascia di misura ammessa (0...60 bar). Soprattutto negli impianti contenenti il refrigerante R744, tenere presente che questi funzionano spesso a pressioni più alte!

### 1.3. Sicurezza con testo 805i



#### ATTENZIONE



**Raggio laser! Laser classe 2**

- > Non guardare nel raggio laser!

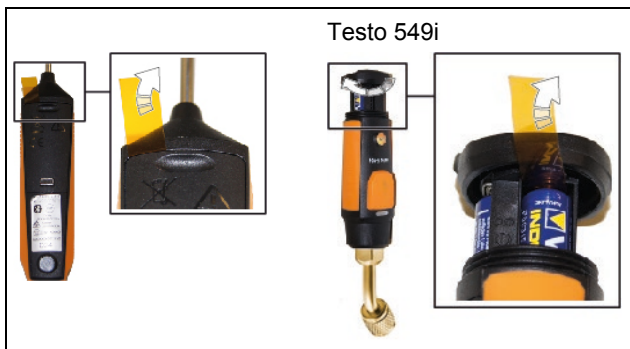
## 2 Panoramica



1	Unità di misura	3	Tasto
2	LED	4	Vano batterie (sul retro)

## 3 Accensione/Spegnimento

### 3.1. Accensione



1. Rimuovere la pellicola di protezione dal vano batterie.
  2. Premere il tasto.
- Gli strumenti Smart Probes si accendono.

### 3.2. Spegnimento

1. Premere a lungo il tasto.
- Gli strumenti Smart Probes si spengono.

## 4 Modulo Bluetooth®

### Stabilire una connessione Bluetooth®



Per poter stabilire una connessione via Bluetooth è necessario un tablet o uno smartphone sui quali sia già stata installata l'app testo Smart Probes.

L'app può essere scaricata dallo store del vostro dispositivo (AppStore o Play Store).

Compatibilità:

- Richiede iOS 7.1 o superiore / Android 4.3 o superiore
- Richiede Bluetooth 4.0

### Omologazione Bluetooth®



L'uso del modulo radio, che è soggetto alle regole e alle leggi vigenti nel paese di utilizzo, è consentito esclusivamente nei paesi per i quali esiste un'approvazione nazionale.

L'utente e ciascun proprietario si impegnano a rispettare queste regole e condizioni di utilizzo, prendendo atto del fatto che la rivendita, l'esportazione, importazione, ecc., in particolare nei paesi sprovvisti di un'approvazione nazionale, ricadono sotto la loro responsabilità..



## 5 Stato del LED

Stato del LED	Significato
Rosso intermittente	Batteria scarica
Giallo intermittente	<ul style="list-style-type: none"> <li>• Lo strumento Smart Probe è acceso.</li> <li>• Smart Probe sta cercando, ma non è ancora collegato.</li> </ul>
Verde intermittente	<ul style="list-style-type: none"> <li>• Lo strumento Smart Probe è acceso.</li> <li>• Bluetooth è collegato.</li> </ul>

## 6 Trasferimento dei valori di misura

- ✓ Gli strumenti Smart Probes sono accesi e collegati via Bluetooth con il loro terminale mobile.
- 1. I valori misurati dagli strumenti Smart Probe vengono automaticamente visualizzati sul display standard.
- 2. Premere il tasto.
  - Il valore attualmente disponibile viene "congelato".
- 3. Premere di nuovo il tasto.
  - Lo strumento visualizza di nuovo il valore momentaneamente misurato.



Le presenti istruzioni di messa in funzione descrivono le operazioni di base con il prodotto.

Per un uso sicuro del prodotto e informazioni più dettagliate si prega di consultare il manuale di istruzioni all'indirizzo:

[www.testo.com/download-center](http://www.testo.com/download-center)



Todas as Smart Probes funcionam exclusivamente em combinação com um terminal móvel e com a App teste Smart Probes.

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# 1 Segurança

## 1.1. Segurança com a teste 510i e teste 605i



### AVISO

Campo magnético

**Pode ser perigoso para a saúde de portadores de um Pacemaker.**

- > Manter uma distância mínima de 10 cm entre o Pacemaker e o aparelho.

## 1.2. Segurança com a teste 549i



### AVISO

Perigo de ferimentos devido a fluidos ou líquidos de refrigeração sob alta pressão, quentes, frios ou tóxicos!

- > Utilização exclusiva por pessoal qualificado.
- > Utilizar óculos de proteção e luvas de proteção.
- > Antes de aplicar pressão no aparelho de medição: conectar o aparelho de medição sempre corretamente com a ligação de pressão
- > Respeitar a gama de medição admissível (0...60 bar). Isto é particularmente importante para sistemas com líquidos de refrigeração R744, visto que estes são frequentemente operados com pressões elevadas!

## 1.3. Segurança com a teste 805i



### PRECAUÇÃO



**Radiação laser! Laser da classe 2**

- > Não olhar diretamente para o raio laser!

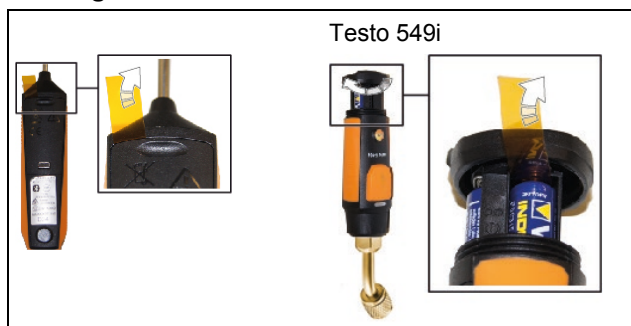
## 2 Vista geral



1	Unidade de medição	2	Botão
2	LED	4	Compartimento das pilhas (face traseira)

## 3 Ligar/desligar

### 3.1. Ligar



1. Retirar a película do compartimento das pilhas.
  2. Carregar no botão.
- As Smart Probes ligam.

### 3.2. Desligar

1. Manter o botão pressionado.
- As Smart Probes desligam.

## 4 Módulo Bluetooth®

### Estabelecer a ligação via Bluetooth®



Para estabelecer uma ligação via Bluetooth é necessário um tablet ou um smartphone no qual já esteja instalada a App Testo Smart Probes.

A App para o aparelho iOS pode ser adquirida na AppStore e a App para os aparelhos android pode ser descarregada na Play Store.

## 5 Estado do LED

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Compatibilidade:

- Requer iOS 8.3 ou superior / Android 4.3 ou superior
  - Requer Bluetooth 4.0
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### Homologação Bluetooth®

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A utilização do módulo por radiofrequência está sujeita aos regulamentos e legislação do respetivo país de aplicação e apenas pode ser utilizado nos países para os quais exista uma certificação. O utilizador e cada proprietário compromete-se a respeitar estes regulamentos e condições de utilização e reconhece que a posterior distribuição, exportação, importação, etc., particularmente para países sem homologação de radiofrequência, é da sua responsabilidade.

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## 5 Estado do LED

Estado do LED	Significado
Vermelho intermitente	Pilhas com pouca carga
Amarelo intermitente	<ul style="list-style-type: none"><li>• Smart Probe está ligada.</li><li>• Smart Probe procura, mas ainda não estabeleceu a ligação.</li></ul>
Verde intermitente	<ul style="list-style-type: none"><li>• Smart Probe está ligada.</li><li>• Bluetooth estabeleceu a ligação.</li></ul>

## 6 Transferir valor de medição

- ✓ As Smart Probes estão ligadas e estão conectadas aos respetivos terminais via Bluetooth.
1. Os valores de medição da Smart Probe são automaticamente exibidos na indicação padrão.
  2. Carregar no botão.
    - O presente valor de medição é retido.
  3. Carregar novamente no botão.
    - O aparelho exibe novamente os valores de medição atuais.
- 



Estas instruções para a colocação em funcionamento descrevem os principais passos de comando.

Para assegurar o manuseamento seguro do aparelho e para consultar informações detalhadas sobre o mesmo deve-se ler o manual de instruções em:

[www.testo.com/download-center](http://www.testo.com/download-center)

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Все смарт-зонды работают только при наличии мобильного устройства и установленного на нем приложения testo Smart Probes.

## 1 Обеспечение безопасности

### 1.1. Безопасное использование смарт-зонда 510i и 605i



#### **ПРЕДУПРЕЖДЕНИЕ!**

Магнитное поле

**Может быть опасно для людей с кардиостимуляторами.**

- > Минимальное расстояние между прибором и кардиостимулятором должно составлять 10 см.

### 1.2. Безопасное использование смарт-зонда 549i



#### **ПРЕДУПРЕЖДЕНИЕ!**

Риск получения травм при контакте с горячими, холодными, токсичными или находящимися под давлением хладагентами/веществами!

- > Работа с зондом должна осуществляться только квалифицированными специалистами.
- > При работе используйте защитные очки и перчатки.
- > Перед подачей давления на зонд всегда проверяйте надежность его крепления к соединению под давлением.
- > Соблюдайте допустимый диапазон измерения (от 0 до 60 бар). Особого внимания требуют системы, в которых используется хладагент R744, поскольку они зачастую работают под высоким давлением.

### 1.3. Безопасное использование смарт-зонда 805i



#### **ВНИМАНИЕ!**



**Лазерное излучение! Лазер 2 Класса**

- > Не направляйте луч лазера в глаза!

## 2 Обзор



1	Измерительный элемент	3	Кнопка
2	LED-индикатор	4	Отсек для батареи (с обратной стороны)

Измерительный элемент

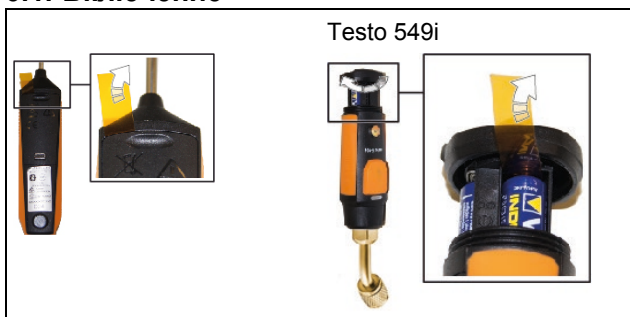
2 LED-индикатор

3 Кнопка

4 Отсек для батареи (с обратной стороны)

## 3 Включение/выключение

### 3.1. Включение



1. Удалите пленку из отсека батареи.

2. Нажмите на кнопку.

- Смарт-зонд включен.

### 3.2. Выключение

1. Нажмите и удерживайте кнопку.

- Смарт-зонд выключен.

## 4 Модуль Bluetooth®

### Установка Bluetooth®-соединения



Для того чтобы установить Bluetooth-соединение, необходим планшет или смартфон с установленным на него приложением Testo Smart Probes.

Для устройств на базе iOS Вы можете загрузить приложение из App Store, для устройств на базе Android приложение доступно в Play Store.

Системные требования:

- iOS 8.3 или выше / Android 4.3 или выше
- Bluetooth 4.0

#### Разрешение на использование модуля Bluetooth®



В отношении использования радиомодуля действуют правила и предписания соответствующей страны применения; он может использоваться только в тех странах, для которых имеется национальный сертификат. Пользователь и каждый владелец обязуются соблюдать эти правила и условия применения и признают, что они несут ответственность за дальнейшую реализацию, экспорт, импорт и т. д., в частности, в странах без допуска для использования радиооборудования.

## 5 Светодиодный индикатор

Статус индикатора	Значение
Мигает красным	Низкий заряд батареи
Мигает желтым	<ul style="list-style-type: none"> <li>• Смарт-зонд включен.</li> <li>• Установление Bluetooth-соединения.</li> </ul>
Мигает зеленым	<ul style="list-style-type: none"> <li>• Смарт-зонд включен.</li> <li>• Bluetooth-соединение активно.</li> </ul>

## 6 Передача измеренных значений

- ✓ Смарт-зонд включен, Bluetooth-соединение с мобильным устройством установлено.
1. Измеренные значения смарт-зонда автоматически отображаются на дисплее.
  2. Нажмите на кнопку.
    - Текущее измеренное значение зафиксировано.
  3. Нажмите на кнопку повторно.
    - Текущие значения снова отображаются на дисплее прибора.



В данном руководстве по вводу в эксплуатацию приведены основные этапы работы. Более подробное описание безопасной эксплуатации зондов и прочая необходимая информация представлены в руководстве пользователя.



testo Smart Probes は、専用アプリがインストールされたモバイル端末と連携させて使います。

## 1 安全上のご注意

### 1.1. testo 510i および testo 605i の安全上のご注意



#### 警告

電磁界

ペースメーカー使用者に悪影響を与える可能性があります。

- > ペースメーカーと測定器は、最低 10 cm 以上離してご使用ください。

### 1.2. testo 549i の安全上のご注意



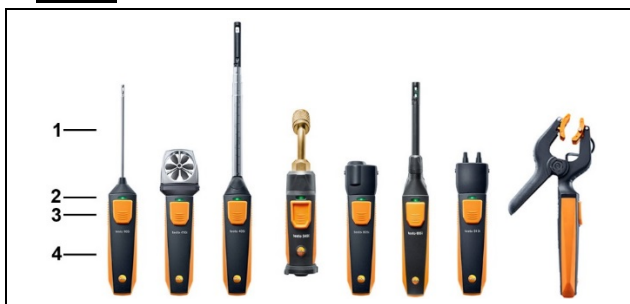
#### 警告

冷媒ガスは、高圧、高温あるいは低温になっており、毒性成分を含んでいます。

冷媒による傷害にご注意ください。

- > 認定者だけが取り扱うようにしてください。
- > 保護ゴーグルと安全手袋を着用してください。
- > 圧力測定前に測定器と圧力の接続ポートをしっかりと締めてください。
- > 使用可能な測定範囲 (0 to 60 bar) を厳守してください。CO<sub>2</sub> 冷媒 (R744) をご使用の場合は特に高圧なのでご注意ください。

## 2 概要

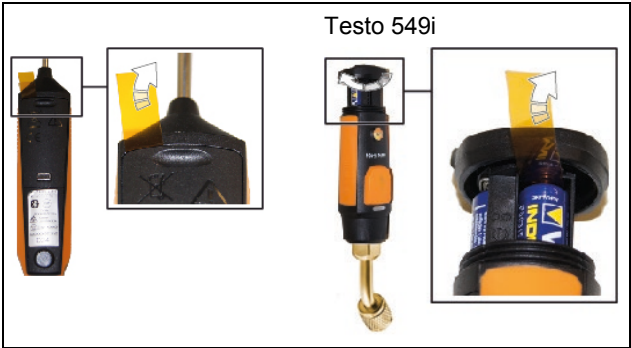


1	測定器	3	ボタン
2	LED	4	バッテリーボックス (背面)



## 3 電源のオン/オフ

### 3.1. 電源のオン



1. バッテリーボックスからフィルムを引っ張り抜いてください。
2. ボタンを押します。
  - Smart Probes の電源が ON になります。

### 3.2. 電源のオフ

1. ボタンを押し続けます。
  - Smart Probes の電源がオフになります。

## 4 Bluetooth® モジュール

### Bluetooth® 接続の確立



testo Smart Probe は、アプリがインストールされたタブレットまたはスマートフォンと Bluetooth で接続します。アプリは、iOS 端末は App Store で、Android 端末は Play Store でダウンロードできます。

要件:

- ・ iOS 8.3 またはそれ以降 / Android 4.3 またはそれ以降
- ・ Bluetooth 4.0

### Bluetooth® 認証



無線モジュールは、使用国の法令と規則に従い使用してください。使用を許可された国以外で本製品を使用することを禁じます。本製品の使用者および所有者は、必ず適用される規則と使用条件を守らなくてはなりません。また、無線の使用許可を得ていない国への転売、輸出、輸入などに伴い発生する責任は、すべて使用者および所有者が追うものとします。

## 5 LED ステータス

LED ステータス	意味
赤の点滅	電池残量が少ない
黄の点滅	<ul style="list-style-type: none"><li>Smart Probe の電源がオンになっている</li><li>Smart Probe の識別中、未接続</li></ul>
緑の点滅	<ul style="list-style-type: none"><li>Smart Probe の電源がオンになっている</li><li>Bluetooth 接続</li></ul>

## 6 測定値の転送

- ✓ Smart Probes の電源が入り、Bluetooth でモバイル端末と接続します。
1. Smart Probes の測定値は自動的にモバイル端末のディスプレイに表示されます。
  2. ボタンを押します。
    - 現在の値がホールドされます。
  3. ボタンを再度押します。
    - 再度、現在の測定値が表示されます。



本説明書は、基本的な操作の説明です。

製品の安全な取扱方法やさらに詳しい情報は、次の URL より、取扱説明書をご参照ください。

[www.testo.com/download-center](http://www.testo.com/download-center)

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必须将所有的 Smart Probes (智能探头) 与一个移动设备和 testo Smart Probes.App (智能探头运用程序) 一起使用。

## 1 安全

### 1.1. testo 510i 和 testo 605i 的安全须知



#### 警告

磁场

可能对心脏起搏器携带者有害。

> 心脏起搏器和设备之间保持 10 厘米以上的距离。

### 1.2. testo 549i 的安全须知



#### 警告

高压下的热、冷或有毒制冷剂/介质的受伤风险!

> 只能由合格人员使用，

> 戴护目镜和防护手套，

> 给测量设备施压之前: 将测量设备与压力接头牢固地连接

> 遵守允许的测量范围 (0 至 60 巴)，尤其使用在 R744 制冷剂的设备要注意这一点，因为在较高的压力下操作这些设备!

### 1.3. testo 805i 的安全须知



#### 小心



激光辐射! 激光等级 2

> 请勿直视激光束!

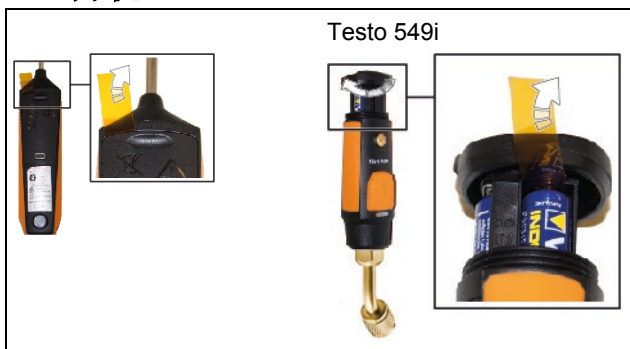
## 2 概览图



1	测量单元	3	按钮
2	LED	4	电池盒 (背面)

## 3 开机/关机

### 3.1. 开机



1. 取出电池盒中的薄膜。
2. 按下按钮，
  - Smart Probes（智能探头）被启动。

### 3.2. 关机

1. 长按按钮，
  - Smart Probes（智能探头）关机。

## 4 Bluetooth®-Modul

### Bluetooth®-建立连接



要接通蓝牙连接，您需要一个安装了应用程序 Testo-App Smart Probes 的平板电脑或智能手机。

iOS 设备在 AppStore，或 Android 设备在 Play Store 获取这些应用程序。

兼容性：

- 需要 iOS 8.3 或更高版本/安卓 4.3 或更高版本
- 需要蓝牙 4.0

### Bluetooth®-许可



无线模块的使用必须遵守使用国家的规则 and 规定，并且只可以在拥有国家认证的国家中使用。用户和每个持有人承诺遵守这些规定和使用条件，并承认对于其它的销售、出口、进口等，特别是在没有无线电许可的国家中使用，其责任自负。

## 5 LED 状态

LED 状态	意义
闪烁红色	电池电量不足
闪烁黄色	<ul style="list-style-type: none"><li>• Smart Probe (智能探头) 已开机</li><li>• 蓝牙搜索, 但未连接</li></ul>
闪烁绿色	<ul style="list-style-type: none"><li>• Smart Probe (智能探头) 已开机</li><li>• 蓝牙已连接</li></ul>

## 6 传输测量值

- ✓ Smart Probes (智能探头) 已启动, 并通过蓝牙与您的移动设备连接。
1. Smart Probe (智能探头) 的测量值将自动显示在标准显示器中。
  2. 按下按钮,
    - 目前已有的测量值被保存。
  3. 再次按下按钮,
    - 设备再次显示当前的测量值。














本调试说明书介绍基本的操作步骤。


有关安全使用本产品 and 详细信息, 请参考在此网站的使用说明书:  
[www.testo.com/download-center](http://www.testo.com/download-center)

# Approval and Certification

## Module Lierda L Series BLE Module

Product	testo 115i, testo 405i, testo 410i, testo 510i, testo 549i, testo 605i, testo 805i, testo 905i	
Mat.-No.	0560 1115, 0560 1405, 0560 1410, 0560 1510, 0560 1549, 0560 1605, 0560 1805, 0560 1905	
Country	<b>Comments</b>	
Australia		E 1561
Brazil	 <p>“Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.”</p>	
Canada	Product IC ID: testo 115i IC ID: 12231A-1115 testo 405i IC ID: 12231A-1405 testo 410i IC ID: 12231A-1410 testo 510i IC ID: 12231A-1510 testo 549i IC ID: 12231A-1549 testo 605i IC ID: 12231A-1605 testo 805i IC ID: 12231A-1805 testo 905i IC ID: 12231A-1905 see IC Warnings	
China	CMII ID: testo 115i CMIIT ID: 2015DP6557 testo 405i CMIIT ID: 2015DP6558	

	testo 410i CMIIT ID: 2015DP6612 testo 510i CMIIT ID: 2015DP6559 testo 549i CMIIT ID: 2015DP6560 testo 605i CMIIT ID: 2015DP6561 testo 805i CMIIT ID: 2015DP6562 testo 905i CMIIT ID: 2015DP6563	
Europa + EFTA	  The EU Declaration of Conformity can be found on the testo homepage <a href="http://www.testo.com">www.testo.com</a> under the product specific downloads.  <b>EU countries:</b> Belgium (BE), Bulgaria (BG), Denmark (DK), Germany (DE), Estonia (EE), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovakia (SK), Slovenia (SI), Spain (ES), Czech Republic (CZ), Hungary (HU), United Kingdom (GB), Republic of Cyprus (CY).  <b>EFTA countries:</b> Iceland, Liechtenstein, Norway, Switzerland	
Hong-kong	Authorized	
Japan	testo 115i  R 204-540016 testo 405i  R 204-540017 testo 410i  R 204-540018 testo 510i  R 204-540019	testo 549i  R 204-540020 testo 605i  R 204-540021 testo 905i  R 204-540023 see Japan Information

<p>Korea</p>	 <p>testo 115i Certification No. MSIP-CRM-Toi-115i          testo 405i Certification No. MSIP-CRM-Toi-405i          testo 410i Certification No. MSIP-CRM-Toi-410i          testo 510i Certification No. MSIP-CRM-Toi-510i          testo 549i Certification No. MSIP-CRM-Toi-549i          testo 605i Certification No. MSIP-CRM-Toi-605i          testo 805i Certification No. MSIP-CRM-Toi-805i          testo 905i Certification No. MSIP-CRM-Toi-905i          see KCC Warning</p>
<p>Taiwan</p>	<p>testo 115i NCC: CCAB16LP177FT0          testo 405i NCC: CCAB16LP177AT3          testo 410i NCC: CCAB16LP1770T1          testo 510i NCC: CCAB16LP177DT9          testo 549i NCC: CCAB16LP177ET1          testo 605i NCC: CCAB16LP177BT5          testo 805i NCC: CCAB16LP177CT7          testo 905i NCC: CCAB16LP177GT2</p>
<p>Turkey</p>	<p>Authorized</p>
<p>USA</p>	<p>Product FCC ID:          testo 115i FCC ID: 2ACVD-1115          testo 405i FCC ID: 2ACVD-1405          testo 410i FCC ID: 2ACVD-1410          testo 510i FCC ID: 2ACVD-1510          testo 549i FCC ID: 2ACVD-1549          testo 605i FCC ID: 2ACVD-1605          testo 805i FCC ID: 2ACVD-1805          testo 905i FCC ID: 2ACVD-1905          see FCC Warnings</p>
<p>Russia</p>	<p>Authorized</p>
<p>Philip- pines</p>	<p>Authorized</p>
<p>South Africa</p>	<p>testo 115i TA-2016/1207          testo 405i TA-2016/1201</p>



	testo 410i	TA-2016/1200
	testo 510i	TA-2016/1199
	testo 549i	TA-2016/1198
	testo 605i	TA-2016/1204
	testo 805i	TA-2016/1206
	testo 905i	TA-2016/1205
Blue-tooth® SIG List	Bluetooth®	Range 15 m (free field) (varies with the used mobile device)
	Bluetooth® type	L Series BLE Module (08 Mai 2013) based on TI CC254X chip
	Qualified Design ID	B016552
	Bluetooth® radio class	Class 3
	Bluetooth® company ID	LSD Science & Technology Co., Ltd
	RF Band	2402-2480MHz
	Output power	0 dBm

### IC Warnings

This instrument complies with Part 15C of the FCC Rules and Industry Canada RSS-210 (revision 8). Commissioning is subject to the following two conditions:

- (1) This instrument must not cause any harmful interference and
- (2) this instrument must be able to cope with interference, even if this has undesirable effects on operation.

Cet appareil satisfait à la partie 15C des directives FCC et au standard Industrie Canada RSS-210 (révision 8). Sa mise en service est soumise aux deux conditions suivantes :

- (1) cet appareil ne doit causer aucune interférence dangereuse et
- (2) cet appareil doit supporter toute interférence, y compris des interférences qui provoquerait des opérations indésirables.

### FCC Warnings

Information from the FCC (Federal Communications Commission)

For your own safety

Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.

### FCC warning statement

This equipment has been tested and found to comply with the limits for a Class C 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 equipment 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 equipment 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.

### Caution

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cable must be used in order to comply with the emission limits.

### Warning

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

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.




### KCC Warning

해당 무선 설비는 운용 중 전파혼신 가능성이 있음

### Japan Information

当該機器には電波法に基づく、技術基準適合証明等を受けた特定無線設備を装着している。

## Module Lierda LSD4BT-S37

Product	testo 115i, testo 549i, testo 605i									
Mat.-No.	0560 2115, 0560 2549, 0560 2605									
Country	Comments									
Australia		E 1561								
Canada	Product IC ID: testo 115i: IC: 6127B-05602115 testo 549i: IC: 6127B-05602549 testo 605i: IC: 6127B-05602605 see IC Warnings									
Europa + EFTA	  <p>The EU Declaration of Conformity can be found on the testo homepage <a href="http://www.testo.com">www.testo.com</a> under the product specific downloads.</p> <p><b>EU countries:</b>          Belgium (BE), Bulgaria (BG), Denmark (DK), Germany (DE), Estonia (EE), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovakia (SK), Slovenia (SI), Spain (ES), Czech Republic (CZ), Hungary (HU), United Kingdom (GB), Republic of Cyprus (CY).</p> <p><b>EFTA countries:</b>          Iceland, Liechtenstein, Norway, Switzerland</p>									
Turkey	Authorized									
USA	testo 115i: WAF-05602115 testo 549i: WAF-05602549 testo 605i: WAF-05602605 see FCC Warnings									
Bluetooth® Information	<table border="1"> <thead> <tr> <th>Feature</th> <th>Values</th> </tr> </thead> <tbody> <tr> <td>Bluetooth® range</td> <td>Open air: typical 100 m</td> </tr> <tr> <td>radio type</td> <td>Bluetooth® Low Energy (BLE) 4.2</td> </tr> <tr> <td>Bluetooth® radio class</td> <td>1</td> </tr> </tbody> </table>		Feature	Values	Bluetooth® range	Open air: typical 100 m	radio type	Bluetooth® Low Energy (BLE) 4.2	Bluetooth® radio class	1
Feature	Values									
Bluetooth® range	Open air: typical 100 m									
radio type	Bluetooth® Low Energy (BLE) 4.2									
Bluetooth® radio class	1									

	Bluetooth® company	LSD Science & Technology Co., Ltd
	RF Band	BT LE: 2402 – 2480MHz
	power output [E.I.R.P]	BT LE: 16.94dBm
Bluetooth® SIG List	Feature	Values
	Declaration ID	D043363
	member company	Testo SE & Co. KGaA

### IC Warnings

#### RSS-Gen & RSS-247 statement:

This device complies with Industry Canada licence-exempt RSS standard(s). 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.

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

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

#### Caution: Radio Frequency Radiation Exposure

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets the IC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person's body in normal use position to ensure compliance with RF exposure requirement.

#### Co-Location:

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

#### Attention : exposition au rayonnement de radiofréquences

Cet équipement est conforme aux limites d'exposition aux radiofréquences IC fixées pour un environnement non contrôlé et aux Lignes directrices relatives à l'exposition aux radiofréquences (RF). Cet équipement doit être installé et utilisé en gardant le radiateur à une distance d'au moins 20 cm du corps humain en position normale d'utilisation pour garantir la conformité à l'exposition aux RF.

#### Co-location

Ce transmetteur ne peut pas être installé en colocation ou être utilisé avec une autre antenne ou transmetteur, quel qu'en soit le type.

## **FCC Warnings**

Information from the FCC (Federal Communications Commission)

### **For your own safety**

Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.

### **FCC warning statement**

This equipment has been tested and found to comply with the limits for a Class C 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 equipment 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 equipment 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.

### **Caution**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cable must be used in order to comply with the emission limits.

### **Warning**

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

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### **Caution: Radio Frequency Radiation Exposure**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person's body in normal use position to ensure compliance with RF exposure requirement.

### **Co-Location:**

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.







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