kamstrup

flowIQ® 2200 & 3200

Installation guide - Cellular

Kamstrup
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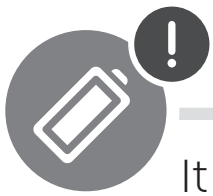
Installation steps

Information

The meter have different display menu's, and menu activation is done by using a magnet. The magnet could be the optical IR interface head.



It is important to make sure, that the meter is installed with the best possible radio performance to achieve maximum battery lifetime on the meter. If the meter is installed in poor radio conditions, the meter battery lifetime is reduced.

There are 2 ways to activate the meter radio:

1 Activation with water flow

2 Activation with in-display menu

The certified module contains:

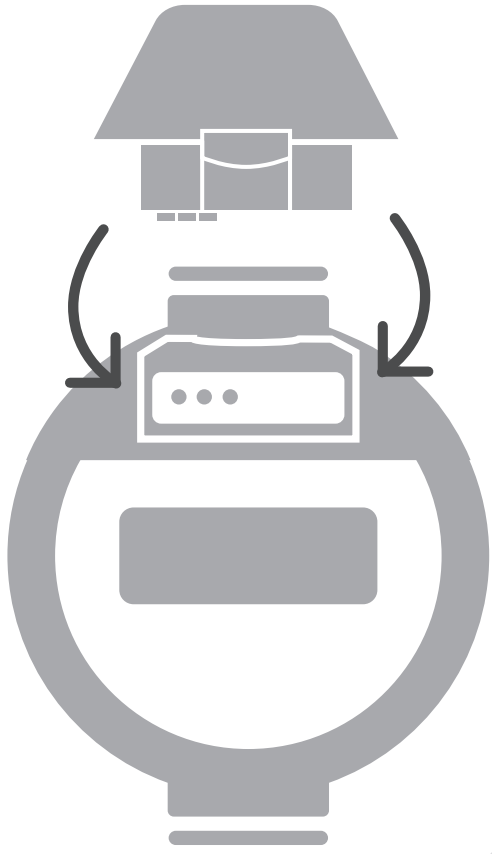
- FCC ID: XMR2021BC660KGL
- IC: 10224A-2021BC660GL

Installation of the external antenna

2.1

Cellular antenna is delivered with the meter. Must be installed before meter commissioning.

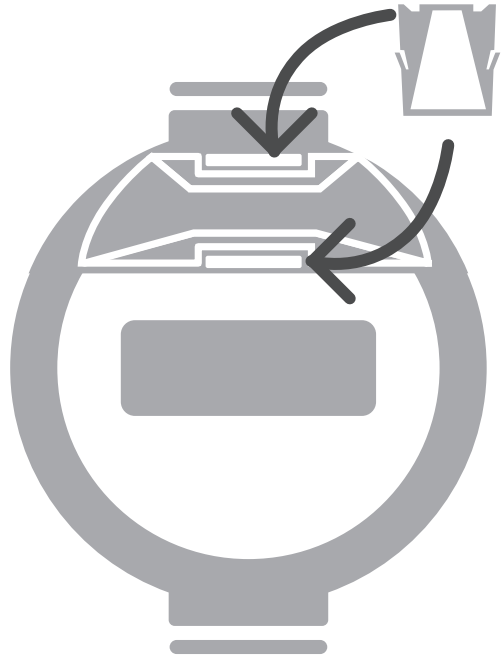
Push the antenna into the meter



1

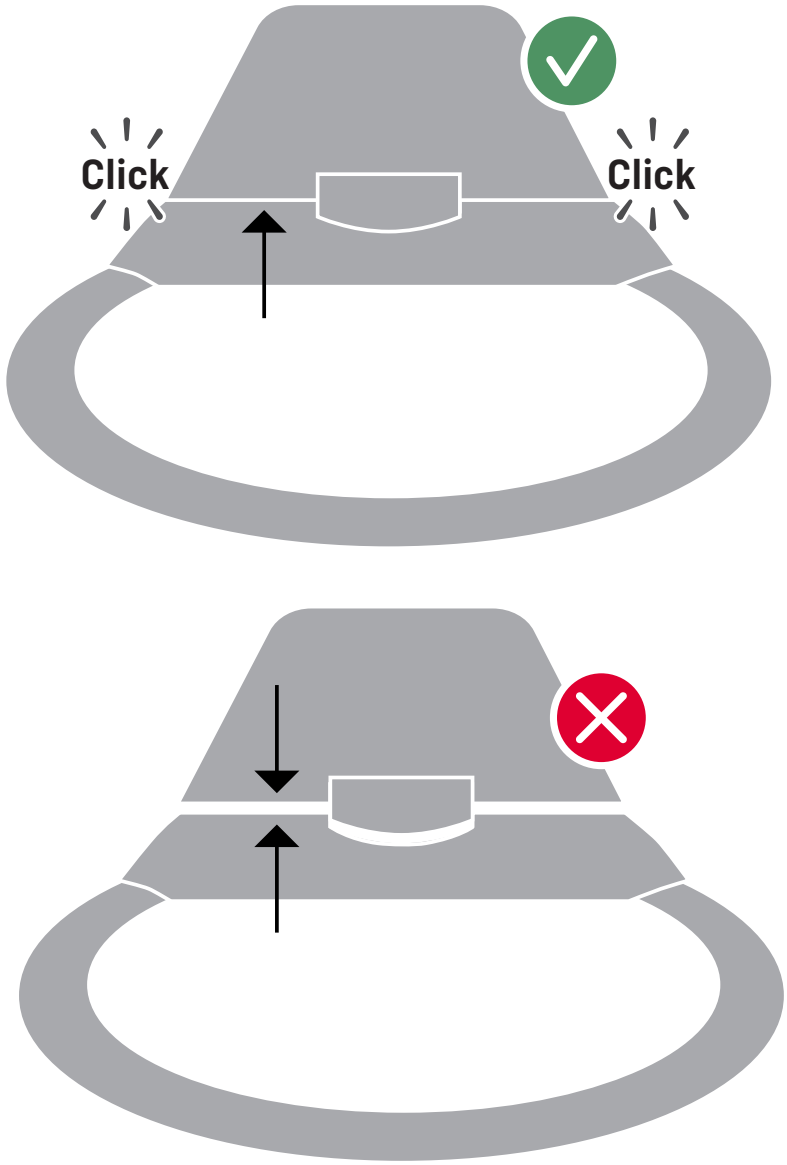
Push the sealing clasps into the meter

Antenna is mounted



2

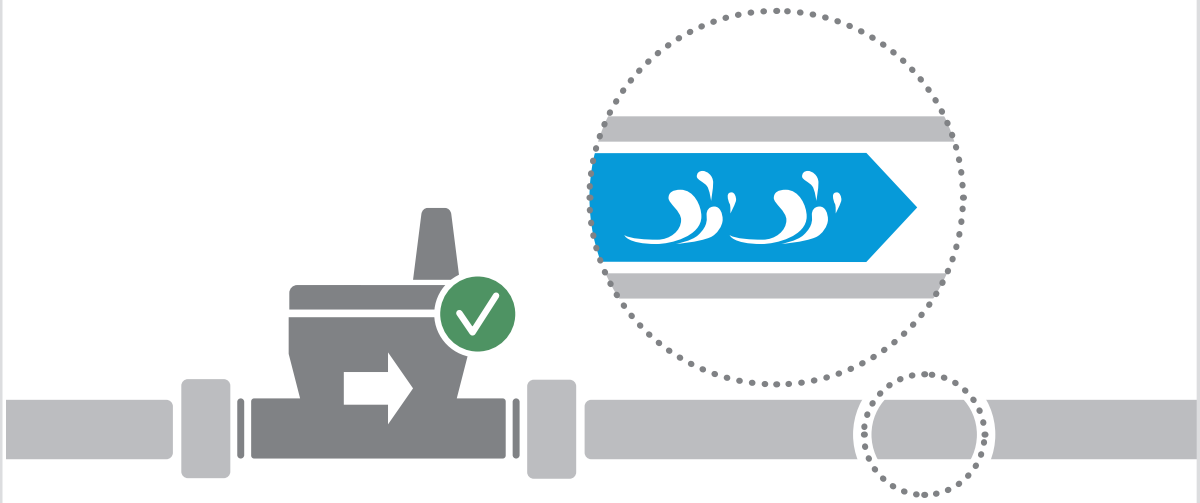
Make sure that there is no gap between the antenna and the gray ring and that the antenna clicks into place.



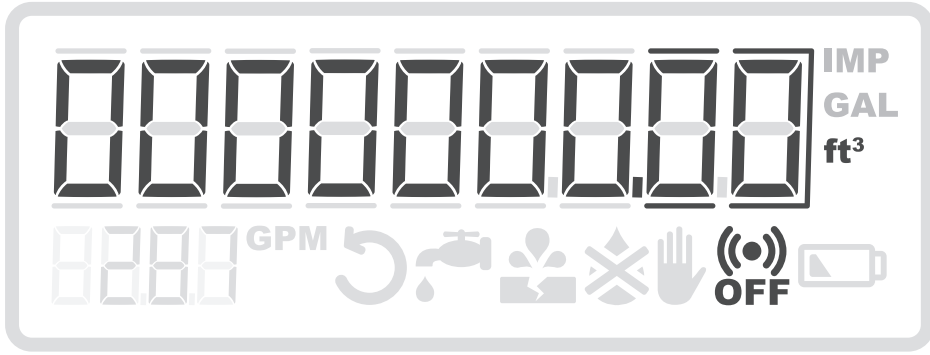
Radio activation with water flow

3.1

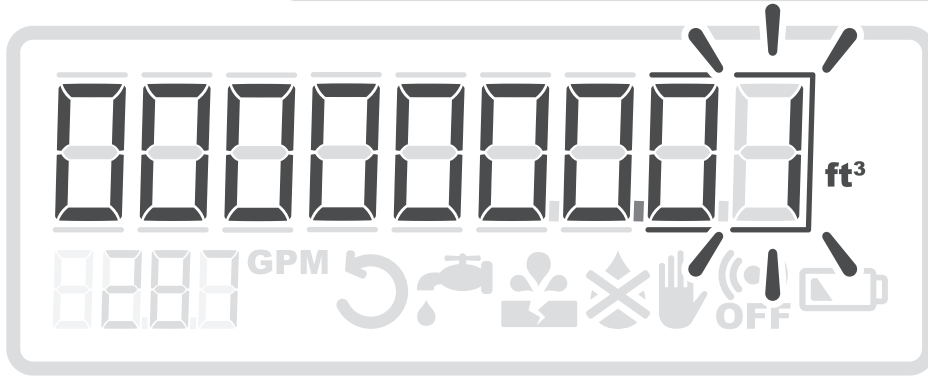
Meter radio activation with water flow



Display with no flow

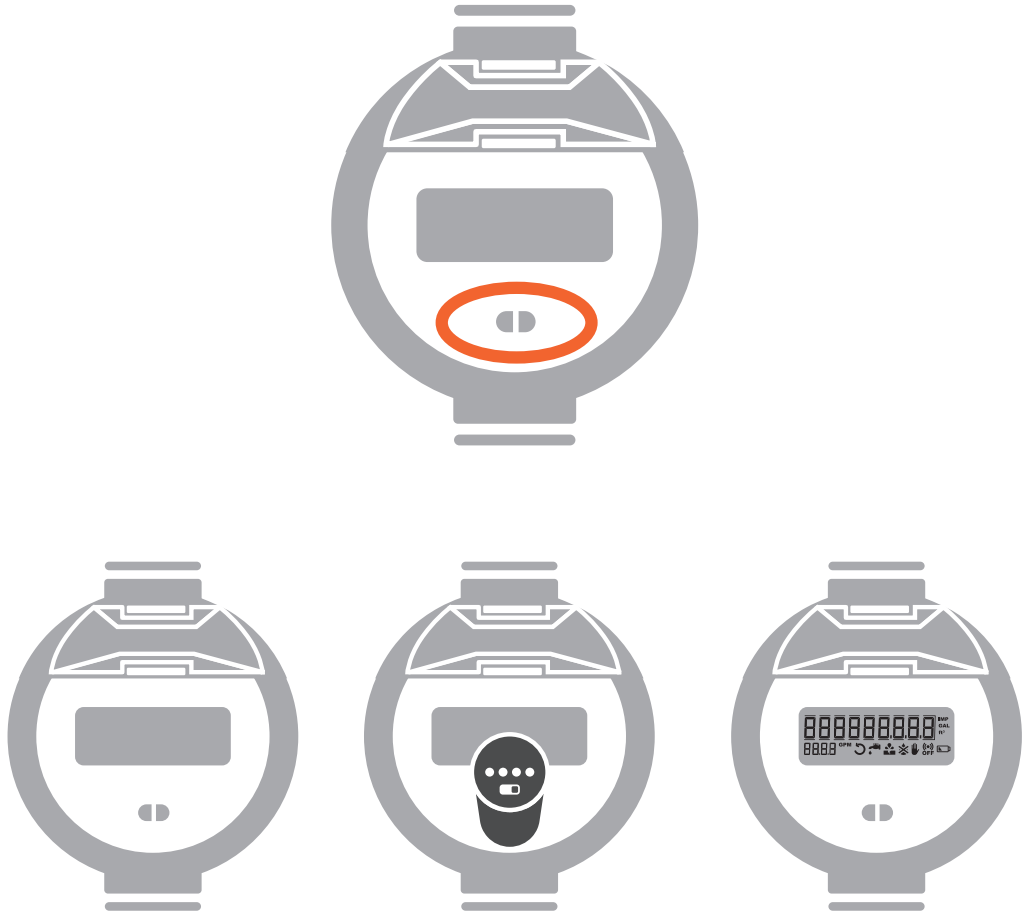


When water runs through the meter, the radio automatically turns ON.



Afterwards the meter preforms a network "CALL" automatically. This network "CALL" may take up to one minute. The meter writes "donE" in the lower left corner if the connection is successful.

If "donE" is not written in display see network performance check.



1 – 2 – 3 sec

Activate the menu by holding a magnet over the meters “optical IR interface” for 3 seconds.

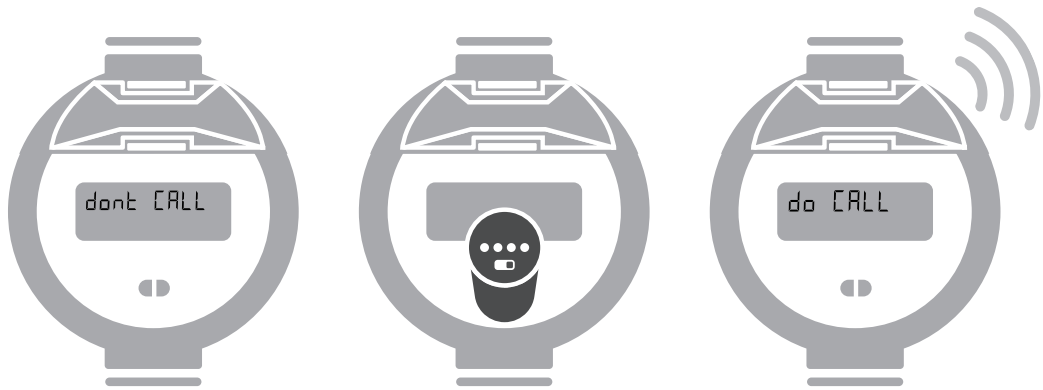
When activated all the segments in the display will be shown.

Navigate to **“dont CALL”** by placing the magnet on the meters optical read-out for 1 second.

“dont CALL” will start flashing after 5 seconds.

1 second

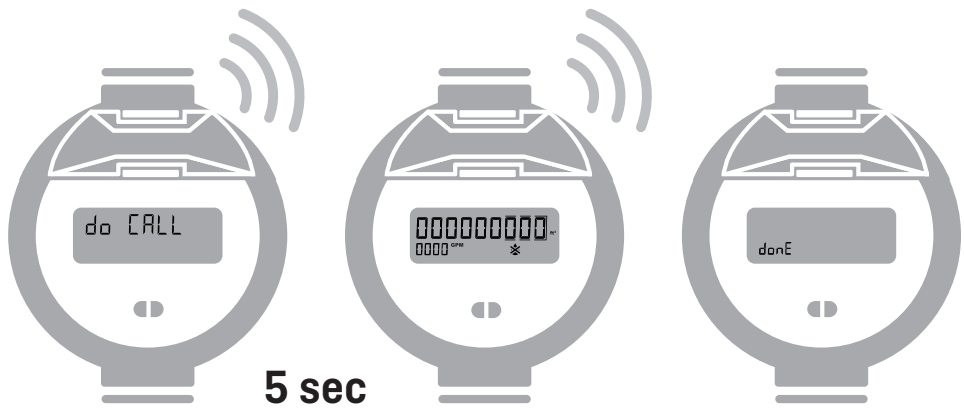
Activate **“do CALL”** by placing the magnet over the optical readout for 1 second.



1 second

The meter returns to the legal volume display and performs a network call.

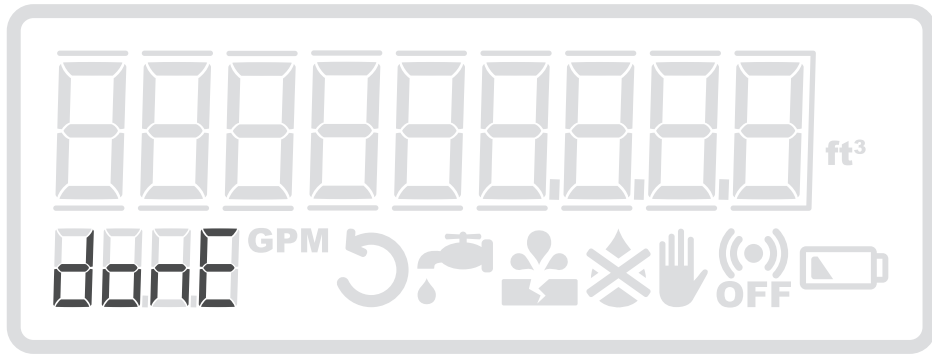
This can take several minutes.

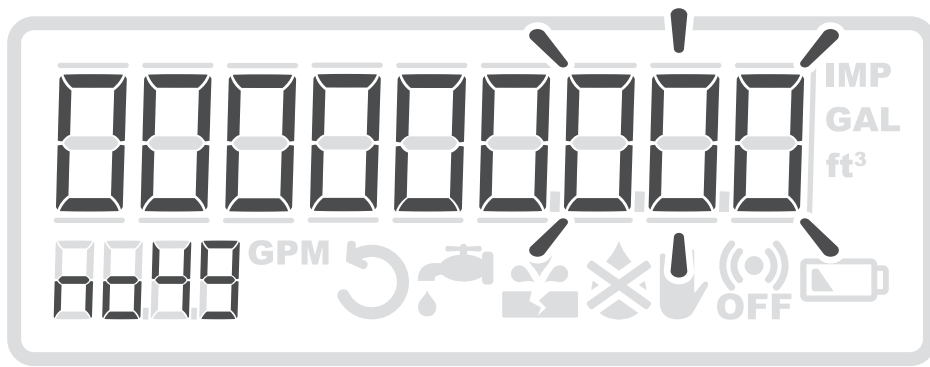


The meter will show **"donE"** in the lower left corner when the connection is successful.

During meter commissioning it is important to do a network performance check by following these steps:

If the meter display does not write ”donE” in display during commissioning: Check the communication status in the ‘in-display menu’ **“no49”**.





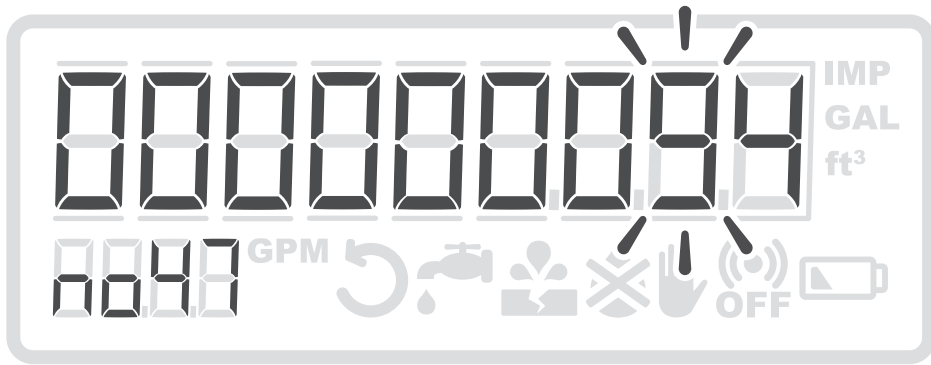
Typical status codes during installation:

- 255: No call/connection tried yet
- 0: Transmission success
- 1: Awaiting registration on network
- 3: Awaiting acknowledgment
- 7: Transmission success, but not all data delivered
- 10: Transmission pending
- 33: Connection pending

Check the radio link quality status in menu **“no47”**.

The second last digit (9) shows the network connection:

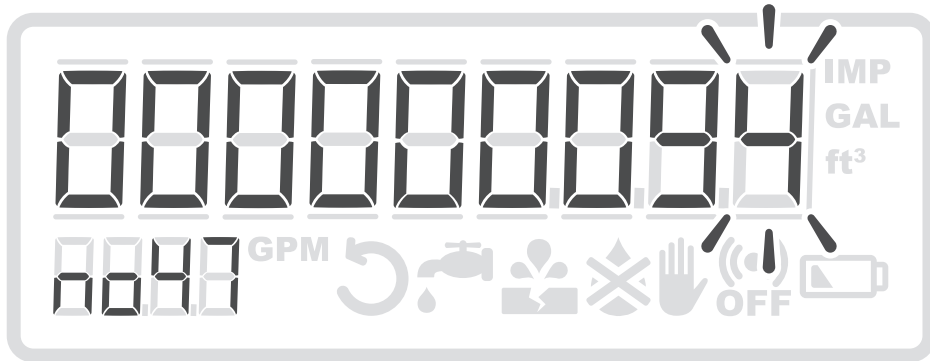
- 9: Connected to the cellular network
- 0: Not connected to the cellular network



The last digit shows the quality of the connection if the connection is achievable:

- 0: Poor
- 1: Weak
- 2: Medium
- 3: Good
- 4: Excellent

If the last digit is 1 or lower = Connection is NOT OK.



4 = Excellent	Acceptable
3 = Good	
2 = Medium	
1 = Weak	Unacceptable, check antenna connection
0 = Poor	

It is possible to check the meters network performance in the meter display. Kamstrup recommends to always check the meter radio performance and to make sure that the performance is at least medium.

It is important to make sure, that the meter is installed with best possible radio performance, to achieve maximum battery lifetime on the meter. If the meter is installed in poor radio conditions, e.g. in a meter well, a network performance status check is recommended.

Canadian complience statement

English:

This device complies with Industry Canada license-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.

Complies with the Canadian ICES-003 Class B specifications.

This device complies with RSS 247 of Industry Canada. This Class B device meets all the requirements of the Canadian interference-causing equipment regulations.

This device IC: 22376-2023NB82 and has been approved by Innovation, Science and Economic Development Canada to operate with the antenna listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna type	Maximum gain
ClickOn antenna	0 dBi
Wall antenna	2.2 dBi

Warning

Must be installed to provide a separation distance of at least 20 cm from all persons. The wall antenna cannot be installed over metal.

Canadian complience statement

Français:

Cet appareil est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférences et

(2) Cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. Cet appareil est conforme à la norme canadienne RSS 247.
Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.
Cet appareil contient IC: 22376-2023NB82 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés cidessous, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste et ayant un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour l'utilisation avec cet appareil.

Antenna type	Maximum gain
ClickOn antenna	0 dBi
Wall antenna	2.2 dBi

Warning Doit être installé de façon à respecter une distance de minimum 20 cm à toute personne. L'antenne murale ne peut pas être installée sur un support métallique.

FCC Cautions

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of FCC rules.

Operation is subject to the following 2 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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 communication. 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 the 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.

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