

**IMPORTANT:**  
**Read Before Using**

**IMPORTANT :**  
**Lire avant usage**

**IMPORTANTE:**  
**Leer antes de usar**



**Operating/Safety Instructions**

**Consignes de fonctionnement/sécurité**

**Instrucciones de funcionamiento y seguridad**

**Wallscanner  
D-tect™150**



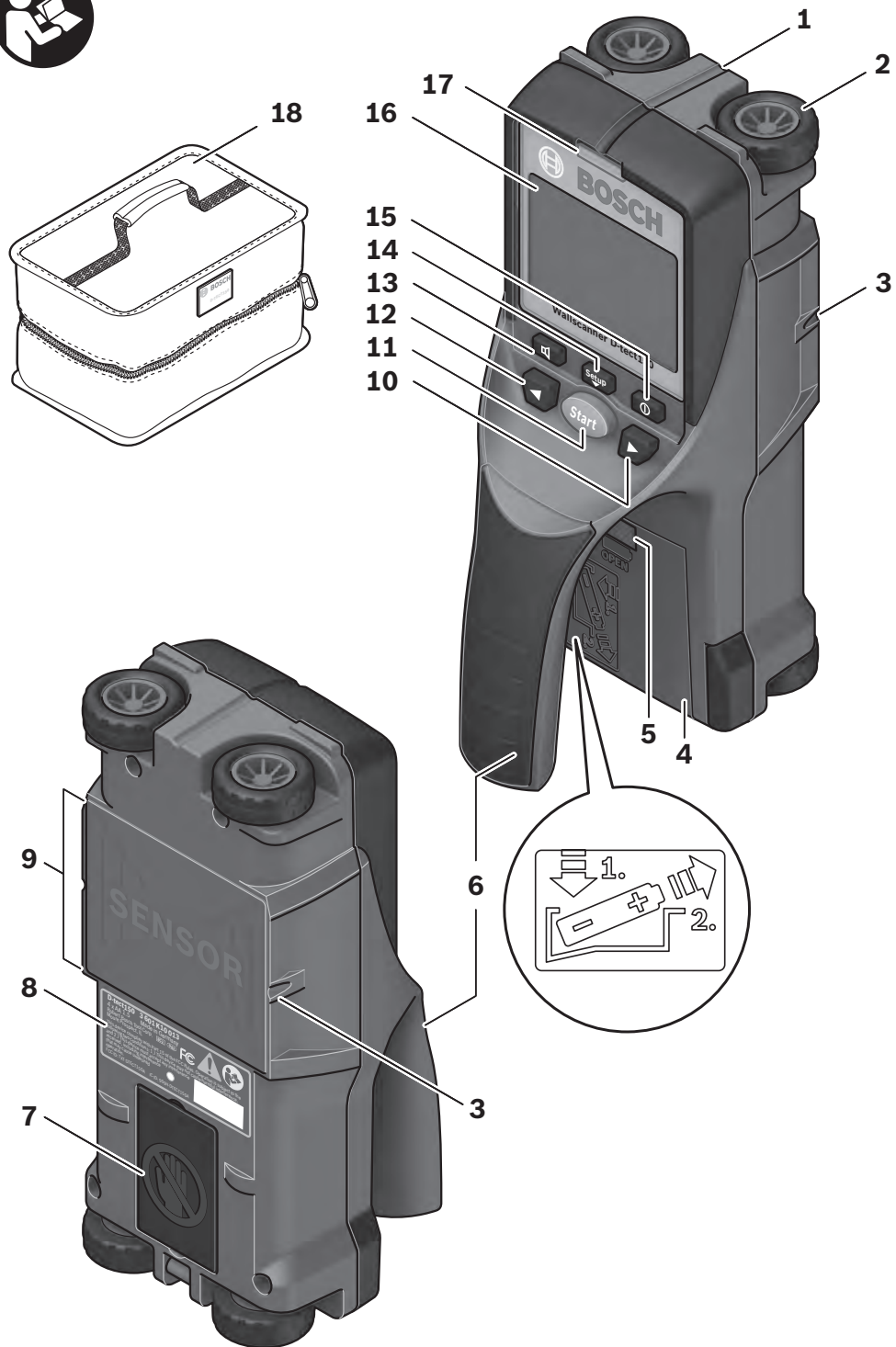
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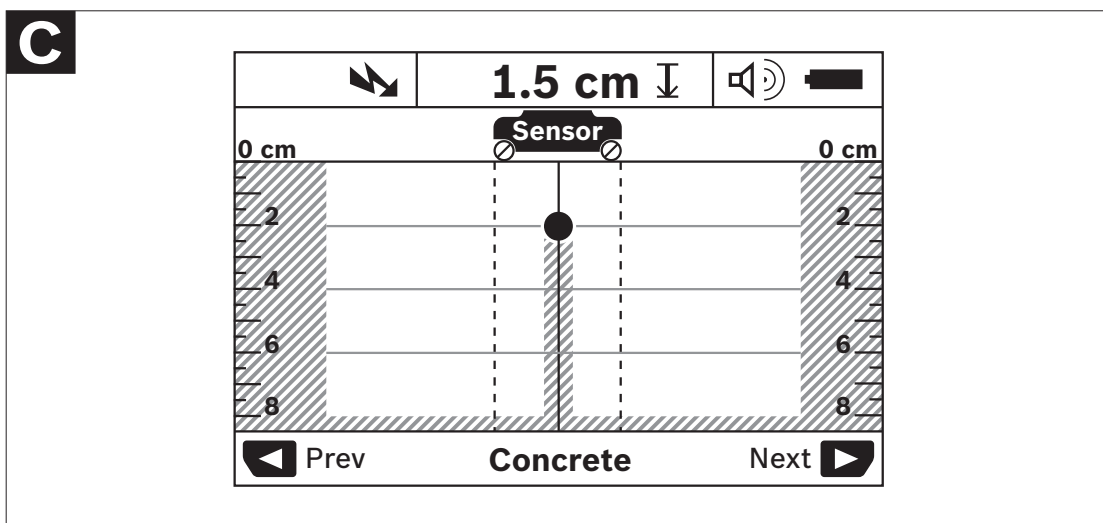
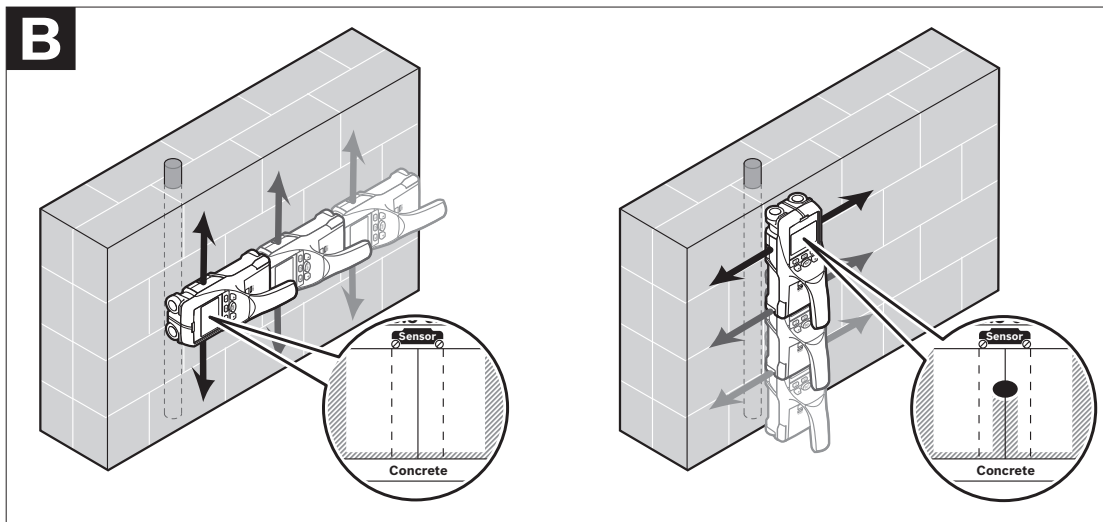
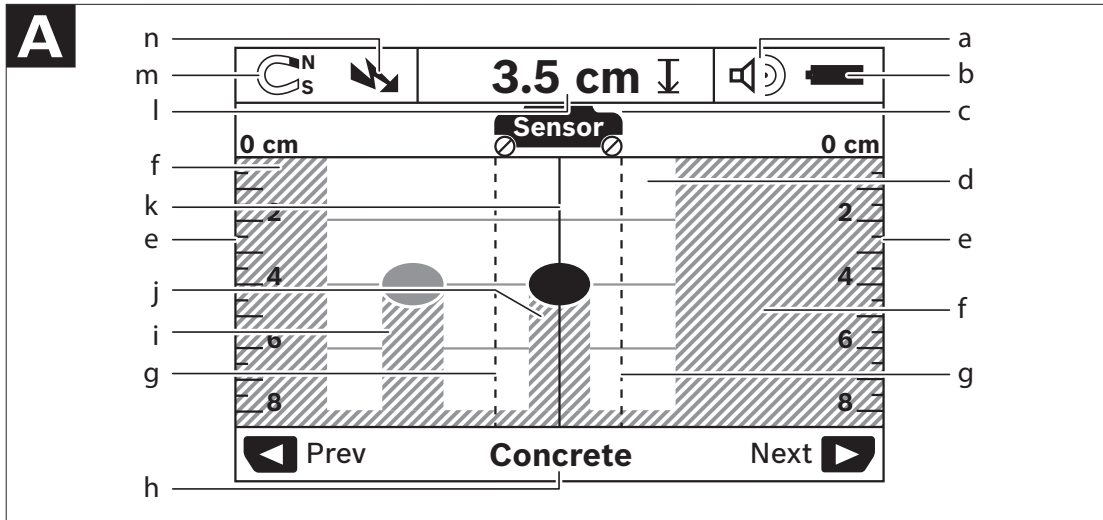
**Call Toll Free for  
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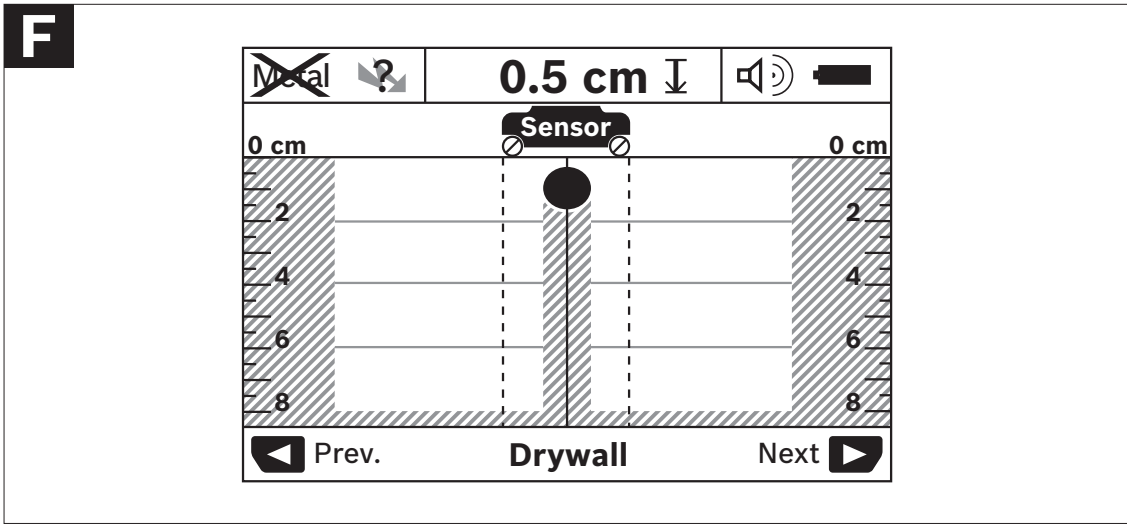
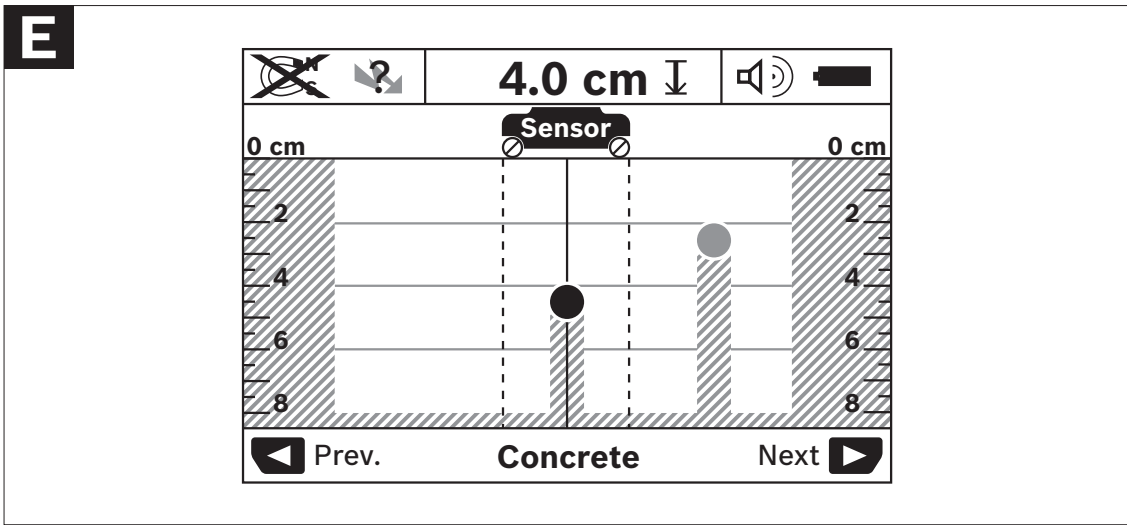
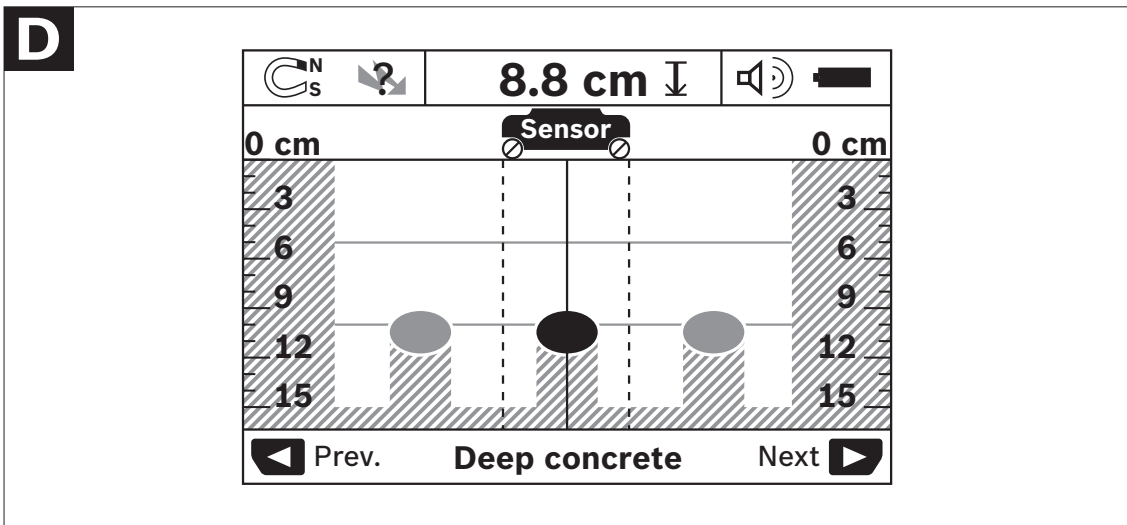
**Pour obtenir des informations  
et les adresses de nos centres  
de service après-vente,  
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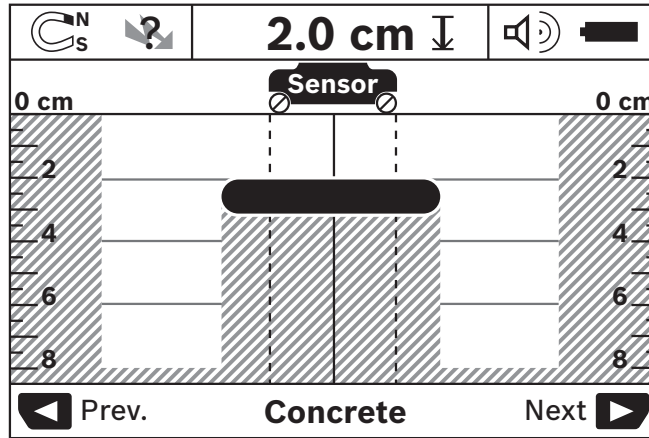
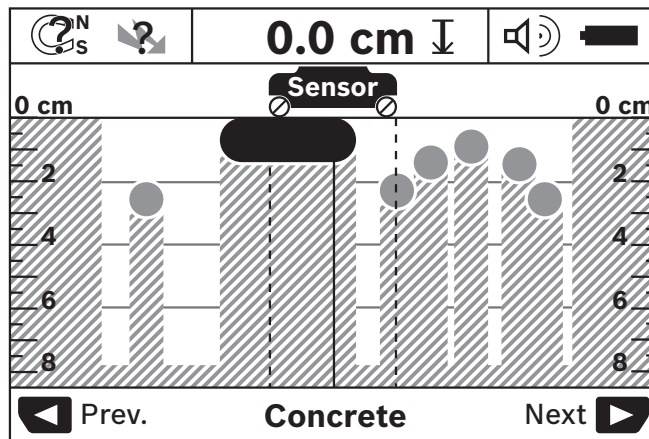
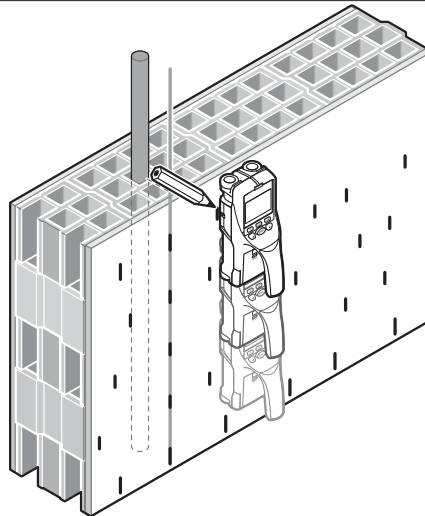
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**For English Version**







**G****H****I**

## General Safety Rules



Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

### SAVE THESE INSTRUCTIONS

**▲ WARNING** The detector's ability to detect objects is affected by the proximity of other equipment that produce strong magnetic or electromagnetic fields, and by moisture, metallic building materials, foil-laminated insulation materials and/or conductive wallpaper.

The detector's ability to detect wood substructures (studs) is also affected by inconsistency on the thickness of the surface material, such as plaster and lath.

It is possible that there may be metal, wood or wiring or something else, such as plastic pipes, beneath the scanned surface that is not detected.

**▲ WARNING** The detector alone should not be relied on exclusively to locate items below the scanned surface. Use other information sources to help locate items before penetrating the surface. Such additional sources include construction plans, visible points of entry of pipes and wiring into walls, such as in a basement, and standard 16" and 24" stud spacing practices.

**▲ WARNING** Before penetrating a surface (such as with a drill, router, saw or nail), always shut off the electrical power, gas and water supplies. Cutting, drilling, etc... into these items when operational can result in personal injury.

**▲ WARNING** **For technological reasons, the measuring tool cannot ensure 100 % certainty. To rule out hazards, safeguard yourself each time before drilling, sawing or routing in walls, ceilings or floors by means of other information sources, such as building plans, pictures from the construction phase, etc.** Environmental influences, such as humidity or closeness to electrical devices, can influence the accuracy of the measuring tool. Surface quality and condition of the walls (e. g., moisture, metallic building materials, conductive wallpaper, insulation materials, tiles) as well as the amount, type, size and position of the objects can lead to faulty measuring results.

### FCC Statement

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

**Note:** This equipment 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 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.

### Section 15.525 Coordination requirements.

(a) UWB imaging systems require coordination through the FCC before the equipment may be used. The operator shall comply with any constraints on equipment usage resulting from this coordination.

(b) The users of UWB imaging devices shall supply operational areas to the FCC Office of Engineering and Technology, which shall coordinate this information with the Federal Government through the National Telecommunications and Information Administration. The information provided by the UWB operator shall include the name, address and other pertinent contact information of the user, the desired geographical area(s) of operation, and the FCC ID number and other nomenclature of the UWB device. If the imaging device is intended to be used for mobile applications, the geographical area(s) of operation may be the state(s) or county(ies) in which the equipment will be operated. The operator of an imaging system used for fixed operation shall supply a specific geographical location or the address at which the equipment will be operated. This material shall be submitted to the following address:

**Frequency Coordination Branch, OET  
Federal Communications Commission  
445 12th Street, SW  
Washington, D.C. 20554**

Attn: UWB Coordination

(c) The manufacturers, or their authorized sales agents, must inform purchasers and users of their systems of the requirement to undertake detailed coordination of operational areas with the FCC prior to the equipment being operated.

(d) Users of authorized, coordinated UWB systems may transfer them to other qualified users and to different locations upon coordination of change of ownership or location to the FCC and coordination with existing authorized operations.

(e) The FCC/NTIA coordination report shall identify those geographical areas within which the operation of an imaging system requires additional coordination or within which the operation of an imaging system is prohibited. If additional coordination is required for operation within specific geographical areas, a local coordination contact will be provided. Except for operation within these designated areas, once the information requested on the UWB imaging system is submitted to the FCC no additional coordination with the FCC is required provided the reported areas of operation do not change. If the area of operation changes, updated information shall be submitted to the FCC following the procedure in paragraph (b) of this section.

(f) The coordination of routine UWB operations shall not take longer than 15 business days from the receipt of the coordination request by NTIA. Special temporary operations may be handled with an expedited turn-around time when circumstances warrant. The operation of UWB systems in emergency situations involving the safety of life or property may occur without coordination provided a notification procedure, similar to that contained in Section 2.405(a) through (e) of this chapter, is followed by the UWB equipment user.

For Canadian Customers only

This In-wall Radar Imaging Device shall be operated where the device is directed at the wall and in contact with or within 20 cm of the wall surface. This In-wall Radar Imaging Device shall be operated only by law enforcement agencies, scientific research institutes, commercial mining companies, construction companies, and emergency rescue or firefighting organizations.

## Electrical Safety Procedures

**WARNING:** Batteries can explode or leak, and can cause injury or fire. To reduce this risk:

**ALWAYS** follow all instructions and warnings on the battery label and package.

**DO NOT** short any battery terminals.

**DO NOT** charge alkaline batteries.

**DO NOT** mix old and new batteries. Replace all of them at the same time with new batteries of the same brand and type.

**DO NOT** mix battery chemistries.

**DISPOSE** of batteries per local code.

**DO NOT** dispose of batteries in fire.

**KEEP** batteries out of reach of children.

**REMOVE** batteries if the device will not be used for several months.

## Environment Protection

Recycle raw materials & batteries instead of disposing of waste. The unit, accessories, packaging & used batteries should be sorted for environmentally friendly recycling in accordance with the latest regulations.

## Functional Description







Optimal operation of the detection tool is possible only when the operating instructions and information are read completely, and the instructions contained therein are strictly followed.

### INTENDED USE

The detection tool is intended for the detection of metals (ferrous and non-ferrous metals, such as pipes, metal studs and rebar), wood studs, plastic pipes (>1" in diameter) and joists, and "live" wires/conductors in walls, ceilings and floors.

### PRODUCT FEATURES

The numbering of the product features shown refers to the illustration of the detection tool on the graphic page.

- 1 Marking guide, top
- 2 Wheel
- 3 Marking guide, left and right
- 4 Battery lid
- 5 Latch of battery lid
- 6 Handle
- 7 Maintenance cover
- 8 Serial number
- 9 Sensor area
- 10 Selection button, right 
- 11 Start button 
- 12 Selection button, left 
- 13 Audio signal button 
- 14 Setup button 
- 15 On/Off button 
- 16 Display
- 17 LED
- 18 Protective soft case

The accessories illustrated or described are not included as standard delivery.

### DISPLAY ELEMENTS

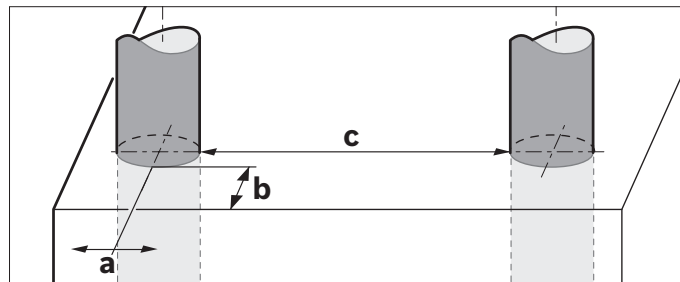
- a Audio signal indicator
- b Battery indicator
- c Sensor-range indicator
- d Area already detected
- e Measuring scale for object depth
- f Area not yet detected
- g Outer edges, to be marked left and right via marking guide 3
- h Mode indicator
- i Gray: Found object outside of the sensor range
- j Black: Found object within the sensor range
- k Center line, corresponds with the marking guide 1
- l Object depth indicator
- m Object material indicator
- n "Live" wire indicator



## Technical Data

### Wallscanner D-tect™ 150

Article number	3 601 K10 013
Dimensions	8 21/32" x 3 13/16 x 4 23/32" (220 x 97 x 120 mm)
Measuring accuracy to the object center <b>a</b> <sup>2)</sup>	±3/16 in (±5 mm <sup>1)</sup> )
Accuracy of the displayed object depth <b>b</b> <sup>2)</sup>	
– in dry concrete	±3/16 in (±5 mm <sup>1)</sup> )
– in wet concrete	±3/8 in (±10 mm <sup>1)</sup> )
Minimum distance between two neighboring objects <b>c</b> <sup>2)</sup>	1 7/32 in (4cm <sup>1)</sup> )
Operating temperature	+14°F ... + 122°F <sup>C</sup> (– 10 °C ... +50 °C)
Storage temperature	– 4 °F ... +158 °F (–20 °C ... +70 °C)
Batteries	4 x 1.5 V AA (LR06)
Battery service life, approx.	5 Hours
–Batteries (Alkali-manganese)	
Weight according to EPTA-Procedure 01/2003	1.5lb (0.7 kg)
Protection class	IP 54 (dust and splash water protected)



1) Depending on size and type of object as well as material and condition of the base material.

**In terms of accuracy, the measuring result can be inferior in case of unfavorable surface quality of the base material.**

2) See graphic

Please observe the article number on the type plate of your detection tool. The trade names of the individual detection tools may vary.

The detection tool can be clearly identified with the

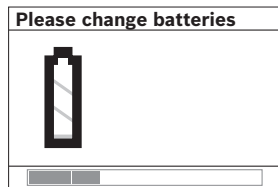
## Preparation

### Inserting/Replacing the Battery

To open the battery lid **4**, press the latch **5** in the direction of the arrow and remove the battery lid. Insert the batteries. When inserting, pay attention to the correct polarity according to the representation on the inside of the battery compartment.

The battery indicator **b** in the upper status line on the display **16** indicates the charge condition of the batteries.

**Note:** Pay attention to the changing battery symbol so that the batteries are replaced in time.



When the “**Please change batteries**” warning indication is shown on the display **16**, the settings are saved and the detection tool switches off automatically. Measurements are no longer possible. Change the batteries.

To remove the batteries, press on the back of a battery as indicated in the figure on the battery lid (**1**). The front end of the battery is released from the battery compartment (**2**), so that the battery can easily be removed.

Always replace all batteries at the same time. Do not use different brands or types of batteries together.

- **Remove the batteries from the detection tool when not using it for extended periods.** When storing for long periods of time, the batteries can corrode and discharge themselves.

## Operation

### INITIAL OPERATION

- **Protect the detection tool against moisture and direct sunlight.**
- **If the detection tool was subject to an extreme temperature change, allow it to adjust to the ambient temperature before switching on.**  
In case of extreme temperature or variations in temperature, the accuracy of the detection tool and the display can be impaired.
- **Do not attach any stickers or labels to the sensor area 9 on the back of the detection tool.** Metal nameplates can affect the detection results.
- **Use or operation of transmitting systems, such as WLAN, UMTS, radar, transmitter antenna or microwaves in the close proximity can influence the detection function.**

### Switching On and Off

- **Before switching the detection tool on, make sure that the sensor area 9 is not moist.** If required, dry the detection tool using a soft cloth.

### Switching On

- To **switch on** the detection tool, press the On/Off button **15** or the start button **11**.
- LED **17** lights up green and the start display is indicated on display **16**.
- When no measurement is carried out and no button is pressed for 5 minutes, the detection tool switches off automatically. This “Cut-off time” can be changed in the “Settings” menu (see “**Cut-off Time**”, page 12).

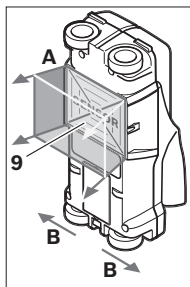
### Switching Off

- To **switch** the detection tool off, press the On/Off button **15**.
- When switching off the detection tool, all settings are retained in the menus.

### Switching the Audio Signal On/Off

The audio signal can be switched on/off with the audio signal button **13**. The “**Tone signal**” can be changed in the “Settings” submenu (see “Tone Signals”, page 12).

## METHOD OF OPERATION (SEE FIGURE B)



The detection tool checks the base material of sensor area **9** in measurement direction **A** to the displayed measuring depth. Measurement is possible only during movement of the detection tool in the direction of travel **B** and for a measuring distance of at least 4" 10 cm. **Move the detection tool in a straight line with light pressure over the wall**

**so that the wheels remain in firm contact with the wall. The object depth and, if possible, the object material, are indicated on the display.**

Optimal results are achieved when the measured distance is at least 15 3/4" (40 cm) and the detection tool is moved slowly over the entire location. This method of operation ensures reliable detection of outer object edges that run transverse to the detection tool's movement direction.

**Always move crossways over the area to be checked.**

If several objects are located one over the other in the wall, the object that is indicated in the display is the one nearest to the surface.

The representation of the material types of detected objects in the display **16** can deviate from the actual object material types. This applies particularly for very thin objects, which are represented thicker in the display. Large cylindrical objects (e.g. plastic or water pipes) can appear in the display smaller than they actually are.

### Detectable Objects

- Plastic pipes (e.g. water-filled plastic pipes, as used in floor/wall-heating systems, with at least 3/4" in diameter; empty pipes with at least 1" in diameter)
- Electrical wiring (independent of whether carrying voltage or not)
- Three-phase wiring (e.g. to the stove)
- Low-voltage wiring (e.g. for door bell, telephone)
- Metal pipes, bars, studs of any type (e.g. steel, copper, aluminium)
- Reinforcing steel
- Wooden studs
- Hollow spaces

### Measurements possible

- In concrete/reinforced concrete
- In brickwork (bricks, porous concrete, foam concrete, aerated concrete, lime-sand brick)
- In light construction walls

- Under surfaces such as stucco, tiles, wallpaper, hardwood flooring, carpet
- Behind wood, drywall

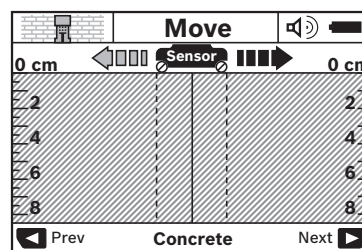
### Special Measuring Cases

Based on the measuring principle, unfavorable conditions can influence the measuring result, for example:

- Multi-layered walls
- Empty plastic pipes and wood studs in hollow spaces and light construction walls
- Objects running inclined in walls
- Moist walls
- Metal surfaces
- Hollow spaces in a wall; these can be indicated as objects.
- Closeness to equipment that generates a strong magnetic or electromagnetic field, e.g. radio stations or generators.

### MEASURING PROCEDURE

Switch the detection tool on. The "standard start display" appears on display **16**.



Position the detection tool against the wall and move it over the wall in the direction of travel (see "Operation Instructions", page 13). Measured results are indicated on display **16** after a minimum measuring distance of 4" (10 cm). To ensure correct measurement results, move the detection tool slowly and completely over the assumed object in the wall.

If the detection tool is lifted away from the wall during a measurement or not operated (moving the device or pressing a button) for more than 2 minutes, the last measured result remains on the display. "Hold" appears on the sensor-range indicator **c**. When the detection tool is placed against the wall again, moved on or when the start button **11** is pressed, the new measurement will start.

When LED **17** lights up red, an object is in the sensor range. When LED **17** lights up green, no object is in the sensor range. When LED **17** flashes, "live" wires / conductors are in the sensor range.





**⚠ WARNING** Before drilling, sawing or routing into a wall, protect yourself against hazards by using other information sources. As the measuring results can be influenced through ambient conditions or the wall material, there may be a hazard even though the indicator does not indicate an object in the sensor range (no audio signal or beep and the illuminated ring 17 lit green).

### Display Elements (see figure A)

If an object is under the sensor area, it will appear in the sensor range **c** of the display. Identification of material type depends on size and depth of object. The object depth **l** to the upper edge of the found object found is indicated in the status line.

**Note:** Both the indication of the object depth **l** as well as the material type **m** refer to the object pictured black in the sensor area.

The indication of the object material **m** can represent the following characteristics:

-  Magnetic, e.g. reinforcing steel
-  Non-magnetic, but metal, e.g. copper pipe
-  Non-metal, e.g. wood or plastic
-  Material type unknown

The indication of “live” wires **n** can represent the following characteristics:

-  “Live”

**Note:** For “live” wire/conductors, no further characteristic is displayed.

-  Not definite whether “live” or voltage free

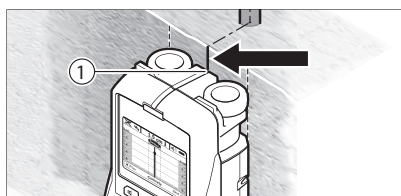
**Note:** Three-phase wiring are **possibly** not detected as “live” conductors.

### Object Detection

To detect objects, moving over the measuring path once may be enough.

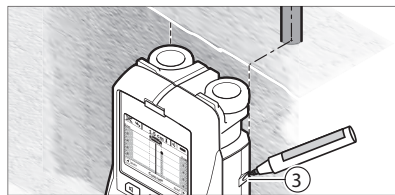
When no object is found, repeat the motion perpendicular to the initial measuring direction (see “Operation Instructions”, page 13).

For precise detection and marking of an object, move the detection tool back over the measuring path.



When an object is indicated directly below the center line **k** in display **16**, as in the example, mark it roughly with the top marking guide **1**. This mark will only be precise when the object is positioned exactly vertical in the wall, as the sensor range is

located somewhat below the top marking guide.



For exact marking of the object on the wall, move the detection tool left or right until the found object is positioned below one of the outer edges. When the found object is indicated directly below the dashed righthand line **g** in display **16**, mark it with the right marking aid **3**.

The direction of an object found in a wall can be determined by carrying out several offset measurements one after another (see figure **I** and “Examples for Measuring Results”, page 13). Mark and connect the respective measuring points.

By pressing the start button **11**, the display of the objects found can be deleted at any time and a new measurement started.

### CHANGING THE OPERATING MODES

Changing between different operating modes is possible with selection buttons **10** and **12**.

- Briefly press selection button **10** to select the next operating mode.
- Briefly press selection button **12** to select the previous operating mode.

By selecting the operating modes, you can adapt the detection tool to different wall materials. The current setting is always shown in the operating-mode indication **h** of the display.

#### Concrete

“Concrete” is suitable for most applications in brickwork or concrete. Plastic and metal objects as well as electrical wiring are displayed. Hollow spaces in brickwork or empty plastic pipes with a diameter of less than 1” may not be displayed. The maximum measuring depth is 3-1/8”.

#### Wet Concrete

The operating mode “Wet Concrete” is particularly suitable for applications in wet reinforced concrete. Reinforcing steel, plastic and metal pipes, as well as electrical wiring are displayed. Differentiating between “live” and voltage-free conductors is not possible. The maximum detection depth is 2-3/8”.

Please note that concrete requires several months to dry completely.

#### Deep Concrete

The operating mode “Deep Concrete” is particularly suitable for detecting objects embedded deep in reinforced concrete. Reinforcing steel, plastic and metal pipes, as well

as electrical wiring are displayed. The maximum detecting depth is 6”.

When too many objects are displayed, it may be possible that you are moving directly alongside a reinforcement rod. In this case, place the detection tool a few inches aside and try again.

### In-floor heating

The operating mode “**In-floor heating**” is particularly suitable for detecting metal, metal-composite and water-filled plastic pipes, as well as for electrical wiring. Empty plastic pipes are not displayed. The maximum measuring depth is 3-1/8”.

### Drywall

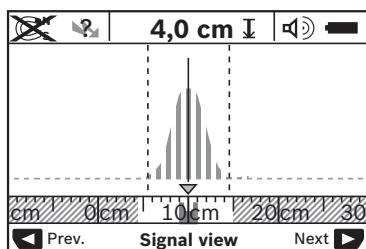
The operating mode “**Drywall**” is suitable for finding wooden beams, metal framing and electrical wiring in drywalls (wood, gypsum board, drywall, etc.). Filled plastic pipes and wooden studs are displayed identically. Empty plastic pipes are not detected. The maximum measuring depth is 3-1/8”.

### Metal

The operating mode “**Metal**” is suitable for detecting metal objects and “live” wires / conductors when other operating modes in different wall situations do not provide satisfactory results. In such cases, the detection results will be more extensive, yet less precise.

### Signal View Mode

The operating mode “**Signal view**” is suitable for all materials. The signal strength at the corresponding detection position is displayed. This mode is particularly suitable for better evaluation of complicated material structures based on the characteristic of the signal.



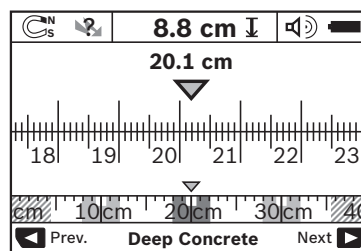
The object depth and the material types (as far as possible) are displayed. The maximum measuring depth is 6”.

- The signal strength shown on the main display is not directly related to the object depth.

### CHANGING THE DISPLAY MODES

**Note:** Changing the display modes is possible in any operating mode.

To switch from the standard start display to ruler mode, press and hold selection button **10** or **12**.



In the example, ruler mode shows the same situation as in figure **D**: Three steel bars equally apart. In ruler mode, the clearance between the detected object centers can be determined.

The measuring distance covered from the starting point (in the example 20.1 cm) is displayed under the indication of the object depth **I**.

The three objects are displayed as rectangles in the small ruler above the operating-mode indication **h**.

**Note:** Both the indication of the object depth **I** as well as the material type **m** refer to the object pictured black in the sensor area.

To return to the standard start display, briefly press selection button **10** or **12**.

**Note:** Only the display is reset, not the measuring mode!

### “SETTINGS” MENU

To access the “Settings” menu, press the setup button **14**.

To exit the menu, press the start button **11**. The current settings are saved. The standard start display for the measuring process is activated.

### Navigating in the Menu

Press the setup button **14** to scroll down.

Press the selection buttons **10** and **12** to select the values:

- Selection button **10** will select the right-hand or next value.
- Selection button **12** will select the left-hand or previous value.

### Language

In the “**Language**” menu, you can change the language of the menu navigation. The default setting is English.

### Cut-off Time

In the “**Cut-off time**” menu, you can set automatic shut off time when no measurements are taken or settings are carried out. The default setting is “**5 min**”.

### Unit Mode

In the “**unit mode**” menu you can change a measuring mode to fractional inch, decimal inch or centimeters.



## Brightness

In the “**Brightness**” menu, you can adjust the brightness of the display backlight. The default setting is “**Max**”.

## Tone Signals

In the “**Tone signal**” menu, you can limit when the detection tool will emit an audio signal.

Signal must be switched on via the audio signal button **13**.

- The default setting is “**Live Wire**”: An audio signal sounds after pressing the button, and whenever a “Live” wire/conductor is under the sensor range. Additionally, a warning signal is given for “live” wires.
- Setting to “**Live wire**”, an audio signal sounds after pressing the button, as does the warning signal is given for “live” wires, when the detection tool indicates a power line.
- Setting to “**Objects**”, an audio signal sounds whenever an object is under the sensor range.
- Setting to “**Keyclick**”, a tone signal only sounds after pressing the button.

## Default Mode

In the “**Default mode**” menu, you can set the default operating mode that is to be pre-set after switching on the detection tool. The default setting is “**Last mode**”.

## “EXTENDED SETTINGS” MENU

To access the “Extended settings” menu, press the setup button **14** and the On/Off button **15** at the same time when the detection tool is switched off.

To exit the menu, press the start button **11**. The standard start display for the measuring process is activated and the settings are saved.

## Navigating in the Menu

Press the setup button **14** to scroll down.

Press the selection buttons **10** and **12** to select the values:

- Selection button **10** will select the right-hand or next value.
- Selection button **12** will select the left-hand or previous value.

## Device Information


In the “**Device Infos**” menu, you can access information on the detection tool, e.g. the “**Operation Time**”.

In the “**Restore Settings**” menu, you can restore the factory settings.

# Operating Instructions

## EXAMPLES FOR MEASURING RESULTS

**Note:** In the following examples, the audio signal on the measuring tool is switched on.

Depending on the size and depth of the object under the sensor area, it is not always possible to positively determine whether this object is “live” or voltage-free. In this case, the  symbol will appear in indicator **n**.

### “Live” Wire (see figure C)

A “live”, metal object (e.g. a power cable) is within the sensor range. The object depth is 1.5 cm. The measuring tool emits the warning signal for “live” conductors as soon as the power cable is detected by the sensor.

### “Live” Wire Detection

Under certain conditions (such as when behind metalized or conductive surfaces, shielded in metal conduit or behind surfaces with high water content/moisture), “live” wires/conductors cannot be detected with certainty. These ranges may be recognized as metal objects. The signal strength of a “live” wire/conductor depends on the position of the cable. Therefore, apply further measurements in close proximity or use other information sources to check if a “live” wire/conductor exists.

- Three-phase wiring is possibly not detected as “live” conductor.

- Wires that are not “live” may be detected as metal objects or may not be detected. This includes solid copper cables, however stranded copper cables are not detectable.

- Static electricity can lead to inaccurate detection of electrical wires, especially, over a large range. It may help to put a hand on the wall next to the detector and measure again in order to help remove the static electricity.

Detection values can be impaired through certain ambient conditions. These include, but are not limited to, the proximity of other equipment that produces strong magnetic or electromagnetic fields, moisture, metallic building materials, foil-laminated insulation materials or conductive wallpaper or tiles. Therefore, please also consult other information sources (e.g. construction plans) before drilling, sawing or routing into walls, ceilings or floors.

Before penetrating surface (such as with a drill, router, saw or nail), always shut off the electrical power, gas and water supplies. Cutting, drilling, etc. into these items when operational can result in personal injury.

### **Magnetic Object (see figure D)**

A magnetic object (e.g. a steel bar) is within the sensor range. Further objects are also located to the left and right, outside of the sensor range.

The object depth is 8.8 cm. The detection tool emits an audio signal.

### **Copper Pipe (see figure E)**

A metal object (e.g. a copper pipe) is within the sensor range. The object depth is 4 cm. The detection tool emits an audio signal.

### **Plastic or Wooden Object (see figure F)**

A non-metal object is within the sensor range. The object is plastic or wooden, and close to the surface. The detection tool emits an audio signal.

### **Large Surface (see figure G)**

A metal, large surface (e.g. a metal plate) is within the sensor range. The object depth is 2 cm. The detection tool emits an audio signal.

### **Many Unclear Signals (see figures H–I)**

When many objects are shown in the standard start display, the wall probably consists of many hollow spaces. To broadly block out the hollow spaces, switch to the “**Metal**” operating mode.

When there are still too many objects being shown, carry out several height-offset measurements and mark the detected objects on the wall.

Offset marks are an indication for hollow spaces, whereas marks on a line indicate an object.

## **Maintenance and Service**

### **Maintenance and Cleaning**

- **Check the measuring tool each time before use.** In case of visible damage or loose components inside the detection tool, safe function can no longer be ensured.

Keep the detection tool clean and dry at all times to ensure proper and safe working conditions.

Do not immerse the detection tool in water or other fluids.

Wipe away debris or contamination with a dry, soft cloth. Do not use cleaning agents or solvents.



Pay attention that the maintenance cover **7** is always properly closed. The maintenance cover may only be opened by an authorized service center for Bosch power tools.

If the detection tool should fail despite the care taken in manufacturing and testing procedures, repair should be carried out by an authorized service center for Bosch power tools. Do not open the detection tool yourself.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the type plate of the detection tool.




Store and transport the detection tool only in the supplied protective pouch.

In case of repairs, send in the detection tool packed in its protective pouch **18**.

### **DISPOSAL**

Detection tool, batteries, accessories and packaging should be sorted for environmental-friendly recycling.

## Trouble Shooting

Issue	Remedy
<b>Detection tool cannot be switched on</b>	
Batteries empty	Replace batteries
Batteries incorrectly inserted (wrong polarity)	Check if the batteries are inserted correctly
<b>Detection tool switched on but does not react</b>	
	Take out batteries and reinsert again
Detection tool too warm or too cold	Wait until operating temperature range is reached
<b>Display indication: “Slipping Wheel”</b>	
Wheel losing contact with the surface	Press the start button <b>11</b> and take care that the two bottom wheels have contact with the wall while moving the detection tool; in case of uneven walls, position a thin piece of cardboard between the wheels and the wall
<b>Display indication: “Speeding”</b>	
Detection tool has been moved too quickly	Press the start button <b>11</b> and move detection tool slowly over the wall
<b>“Temperature over range”</b>	
	Wait until operating temperature range is reached
<b>“Temperature under range”</b>	
	Wait until operating temperature range is reached
<b>“Strong radio signal detected”</b>	
	Detection tool switches off automatically. If possible, eliminate the interfering radio waves, e.g. WLAN, UMTS, radar, transmitter antenna or microwaves, then switch the detection tool on again.



## LIMITED WARRANTY OF BOSCH LASER AND MEASURING TOOL PRODUCTS

Robert Bosch Tool Corporation ("Seller") warrants to the original purchaser only, that all BOSCH laser and measuring tool products will be free from defects in material or workmanship for a period of three (3) years from date of purchase.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of laser and measuring tool products, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Seller Authorized Service providers.

SELLER'S OBLIGATION AND YOUR REMEDY ARE FURTHER LIMITED AS FOLLOWS:

- **30-Day Money Back Refund or Replacement.** If you are not completely satisfied with the performance of your laser or measuring tool product, for any reason, you can return it to BOSCH within 30 days of the date of purchase for a full refund or replacement. To obtain this 30-Day Refund or Replacement, your return must be accompanied by the original receipt for purchase of the laser or measuring tool product. A maximum of 2 returns per customer will be permitted.
- **First Year– OTC Warranty.** BOSCH will replace your laser or measuring tool product that has failed when used in conformance with product instructions and warnings, with a new laser or measuring tool product of comparable features, for free, any time during the first year after purchase. This warranty does not apply if your laser or measuring tool product fails solely due to the need for recalibration.
- **2- and 3-Year Exchange.** BOSCH will replace your laser or measuring tool product that has failed when used in conformance with product instructions and warnings, with a new or reconditioned laser or measuring tool product of comparable features, for an exchange cost. This warranty does not apply if your laser or measuring tool product fails solely due to the need for recalibration.

For details to make a claim under this Limited Warranty.

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