

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-tect200C

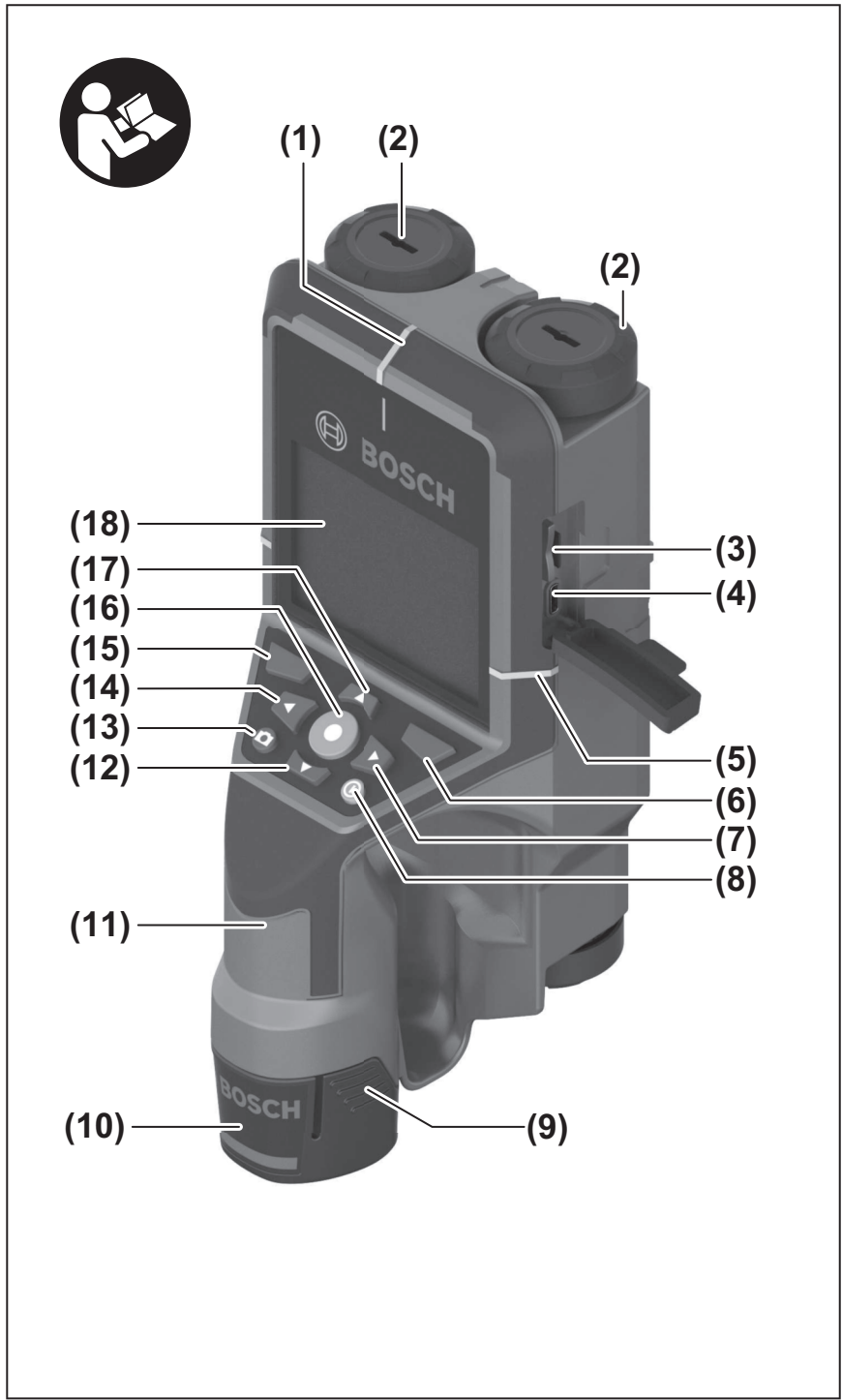


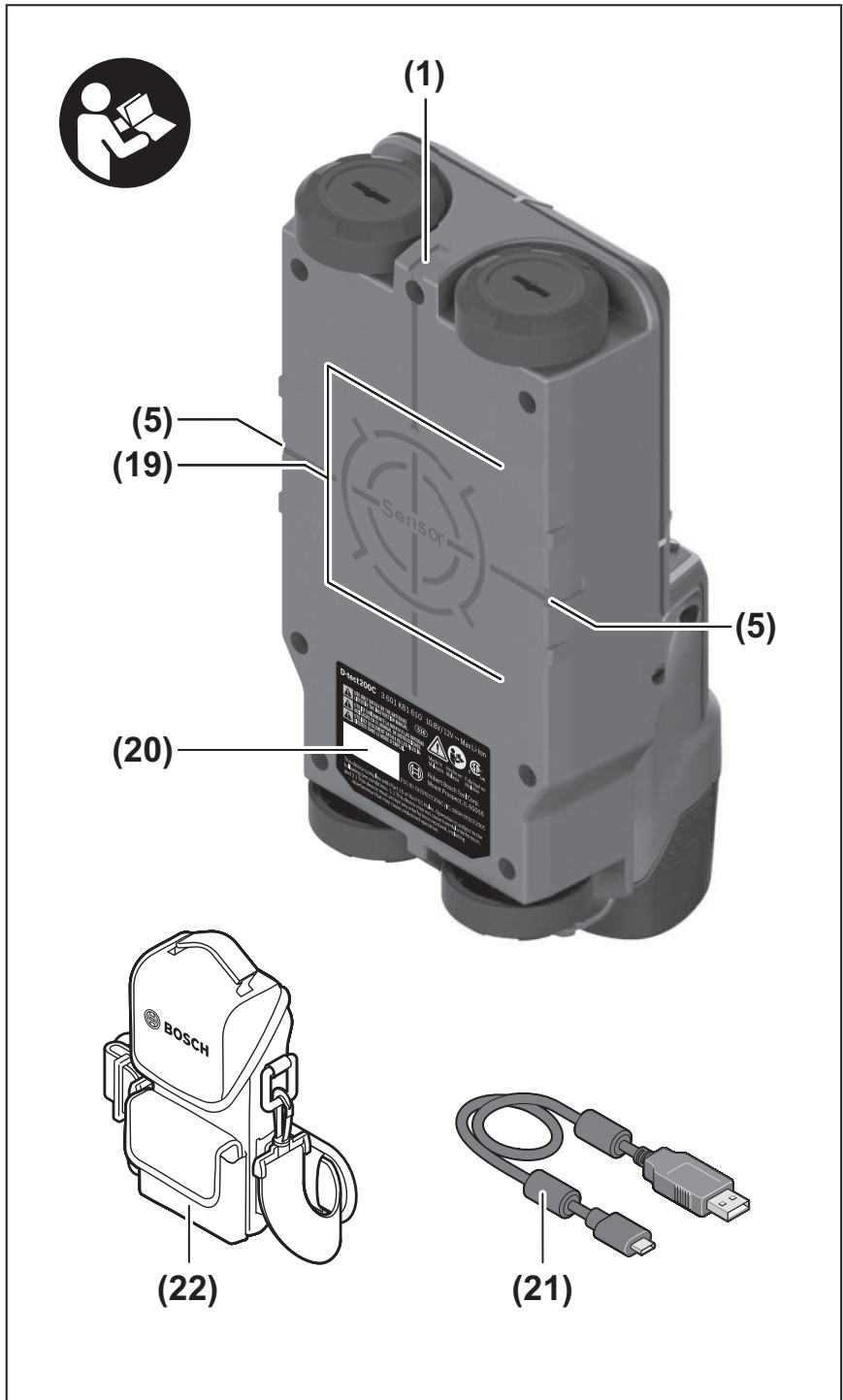
BOSCH

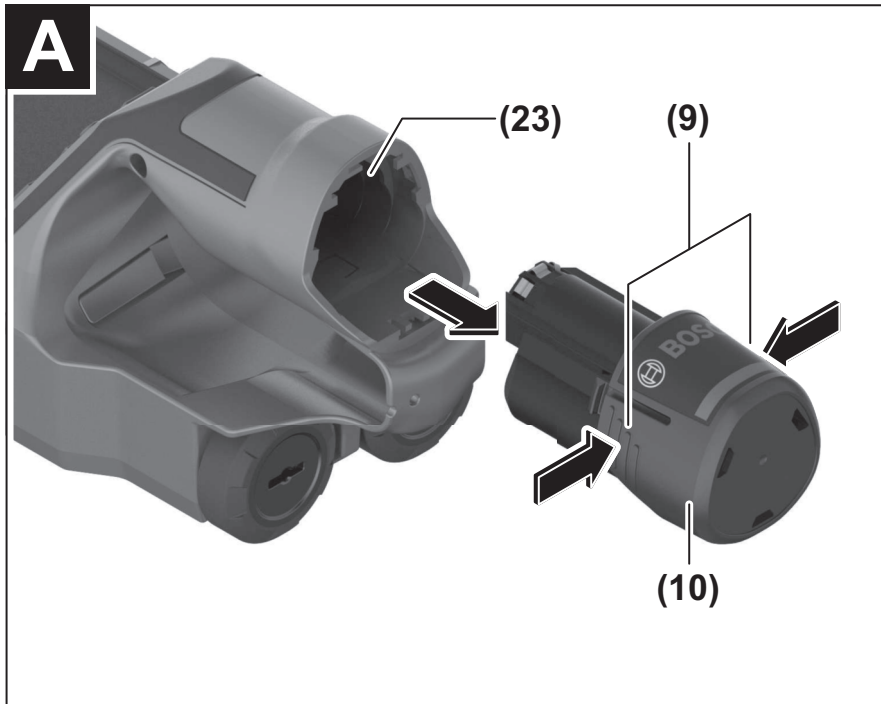
**Call Toll Free for
Consumer Information
& Service Locations**

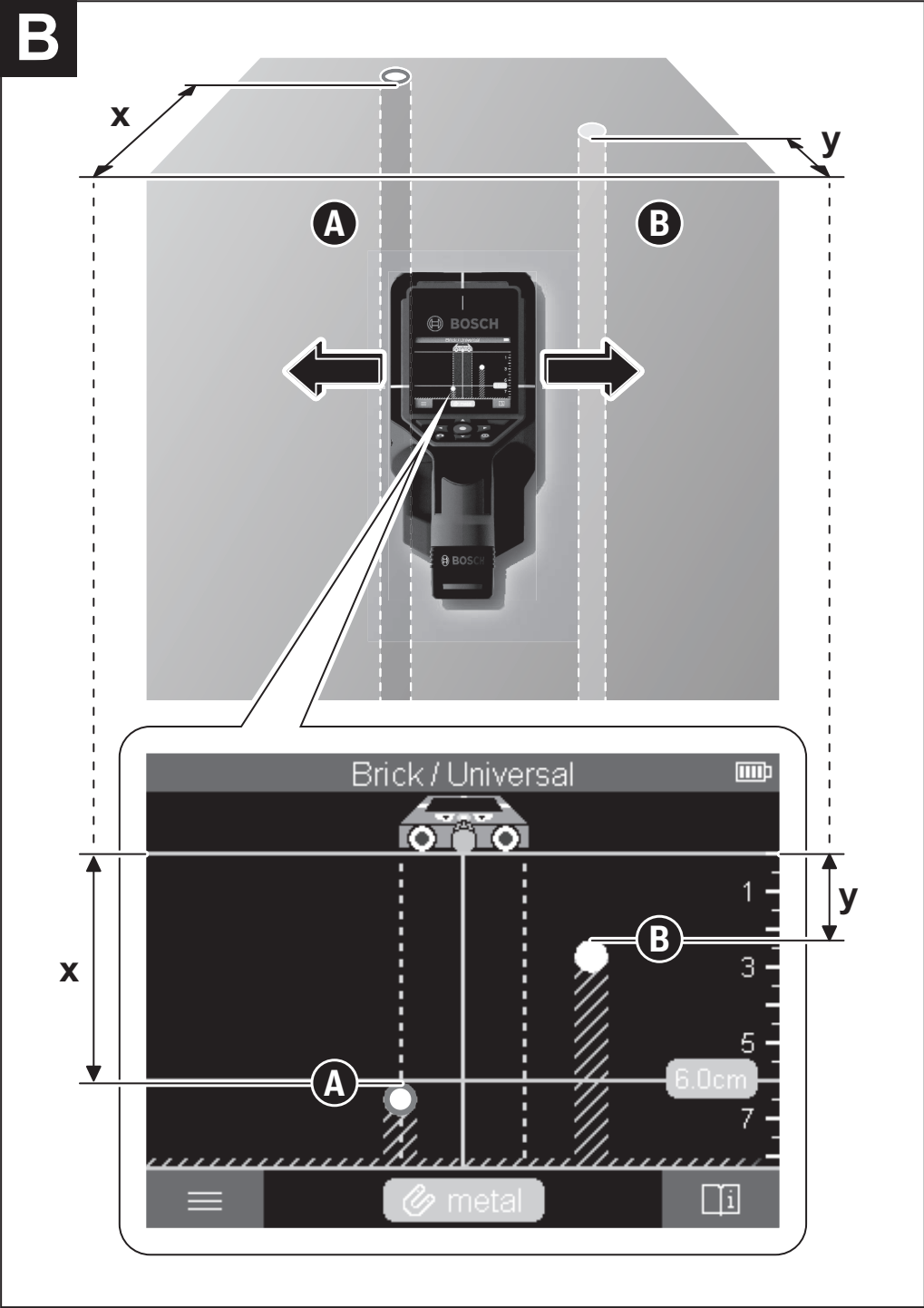
**Pour obtenir des informations
et les adresses de nos centres
de service après-vente,
appelez ce numéro gratuit**

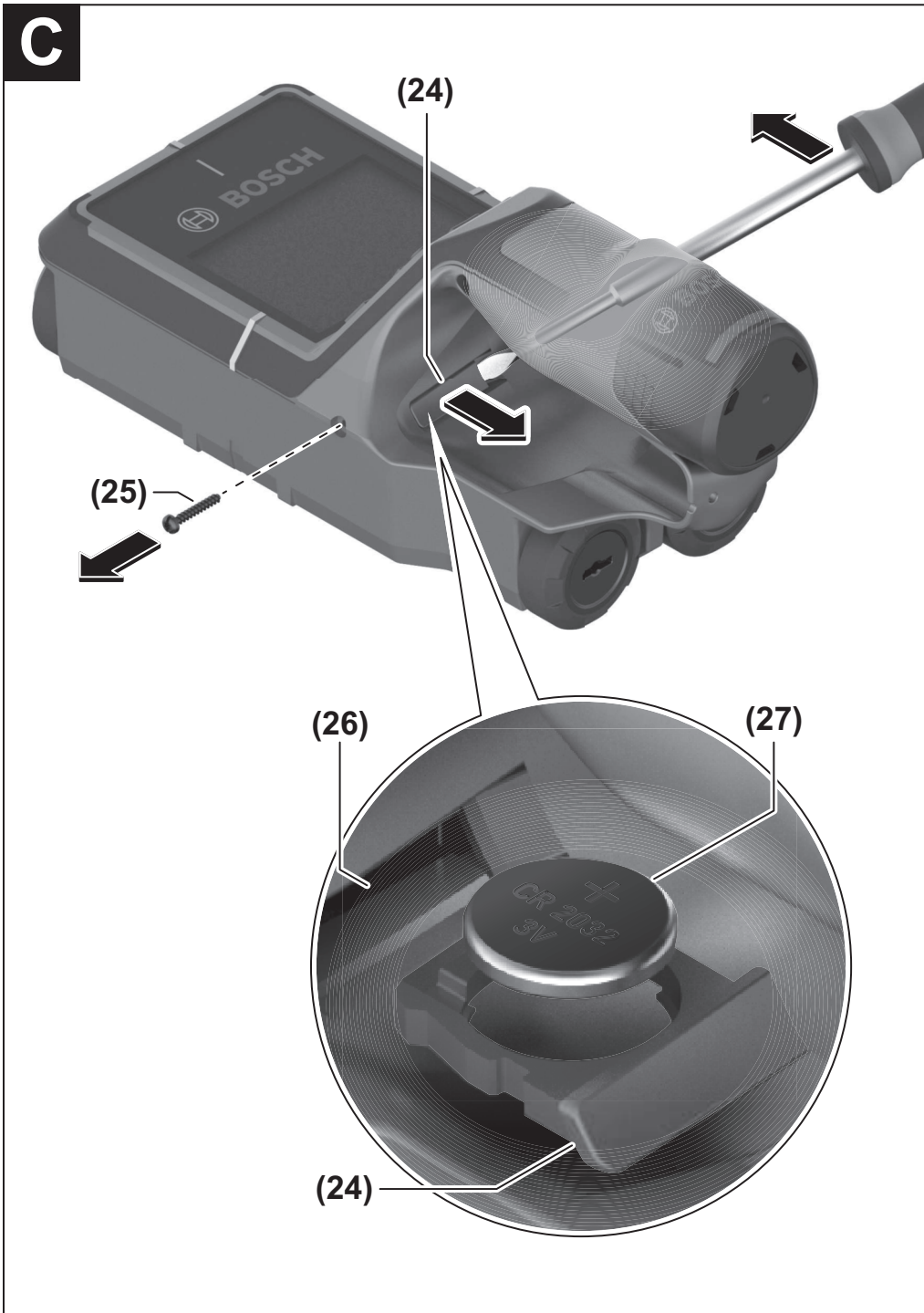
**Llame gratis para
obtener información
para el consumidor y
ubicaciones de servicio**















Safety Symbols

The definitions below describe the level of severity for each signal word.
Please read the manual and pay attention to these symbols.

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

General Safety Rules

⚠️ WARNING **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 detection tool 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 detection 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 detection 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.

▶ **Never swallow button cells.** Swallowing button cells can result in severe internal burns and death within two hours.

Ensure that the button cell is kept out of the reach of children. If you suspect that someone has swallowed a button cell or that a button cell has entered the body in another way, seek medical attention immediately.

▶ **Ensure that battery replacement is carried out properly.** There is a risk of explosion.

▶ **Do not attempt to recharge the button cell and do not short circuit the button cell.** The button cell may leak, explode, catch fire and cause personal injury.

▶ **Remove and dispose of drained button cells correctly.** Drained button cells may leak and damage the product or cause personal injury.

General Safety Rules

- ▶ **Do not overheat the button cell or throw it into fire.** The button cell may leak, explode, catch fire and cause personal injury.
- ▶ **Do not damage the button cell and or take the button cell apart.** The button cell may leak, explode, catch fire and cause personal injury.
- ▶ **Do not allow damaged button cells to come into contact with water.** Leaking lithium may mix with water to create hydrogen, which could cause a fire, an explosion, or personal injury.

Work area safety

Keep work area clean and well lit. Cluttered or dark areas invite accidents.

Do not operate the detection tool in explosive environments, such as in the presence of flammable liquids, gases or dusts. Sparks can be created in the detection tool which may ignite the dust or fumes.

Electrical safety

⚠ WARNING Batteries can explode or leak, cause injury or fire. To reduce this risk, always follow all instructions and warnings on the battery label and package.

DO NOT expose the detection tool and battery to rain or wet conditions. Water entering detection tool will increase the risk of fire and personal injury.

DO NOT short any battery terminals.

DO NOT charge button/coil cell batteries.

Dispose of or recycle 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.

Personal safety

Do not make any modifications to the tool and battery.

Stay alert, watch what you are doing and use common sense when operating a tool. Do not use a tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating a tool may result in serious personal injury or incorrect measurement results.

Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Use caution when using detection tools in the vicinity of electrical hazards.

⚠ WARNING Chemical Burn Hazard. Keep lithium button/coin batteries away from children. This product contains a lithium button/coin cell battery. If a new or used lithium button/coin cell battery is swallowed or enters the body, it can cause severe internal burns and can lead to death in as little as 2 hours. Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

Use and care

Use the correct tool for your application. The correct tool will do the job better and safer.

Do not use the tool if the switch does not turn it on and off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Store idle tool out of the reach of children and do not allow persons unfamiliar with the tool or these instructions to operate the tool. Tools are dangerous in the hands of untrained users.

Maintain tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the operation. If damaged, tool repaired before use. Many accidents are caused by poorly maintained tools.

Use the tool, accessories, etc., in accordance with these instructions and in the manner intended for the particular type of tool, taking into account the working conditions and the work to be performed. Use of the tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

Use detection tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.

When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.

General Safety Rules

Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, EXPLOSION or risk of injury.

Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 265 °F (130 °C) may cause explosion.

Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the BATTERY and increase the risk of fire.

Disconnect the battery pack from the tool before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

Do not modify or attempt to repair the tool or the battery pack except as indicated in the instructions for use and care.

Service

Have your tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the tool is maintained.

Develop a periodic maintenance schedule for tool. When cleaning a tool be careful not to disassemble any portion of the tool since internal wires may be misplaced or pinched or may be improperly mounted. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.

SAVE THESE INSTRUCTIONS

FCC Statement

The manufacturer is not responsible for radio interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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.

NOTE! This equipment has been tested and found to comply with the limits for a Class B digital devices, 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.

“Exposure to Radio Frequency (RF) Signals: The wireless device is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limit for exposure to radio frequency (RF) energy set by the Ministry of Health (Canada), Safety Code 6. These limits are part of comprehensive guidelines and established permitted levels of RF energy for the general population.

These guidelines are based on the safety standards previously set by international standard bodies. These standards include a

FCC Statement

substantial safety margin designed to assure the safety of all persons, regardless of age and health.

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:

**Federal Communications Commission
Frequency Coordination Branch, OET,
ATTN: UWB Coordination
Washington, DC 20554**

(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.

ISED Canada

This device contains licence-exempt transmitter(s)/ receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

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.

Intended Use

The detection tool is intended for the detection of objects in walls, ceilings and floors. Depending on the material and condition of the base material, it is possible to detect metal objects, wooden beams, plastic pipes, conductors and cables.

On this basis, clarification is required as to whether the detection tool can be used in places such as hospitals, nuclear power plants and in the vicinity of airports and mobile phone base stations.

The detection tool is suitable for indoor use.

Functional Description

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

- | | |
|--|---|
| (1) Top marking aid | (14) Left-hand arrow button |
| (2) Wheel | (15) Left-hand function button |
| (3) Slot for microSD card | (16) Red start button |
| (4) USB Type-C® port ^{A)} | (17) Up arrow button |
| (5) Left-hand and right-hand marking aids | (18) Display |
| (6) Right-hand function button | (19) Sensor area |
| (7) Right-hand arrow button | (20) Serial number |
| (8) On/off button | (21) USB Type-C® cable ^{B)} |
| (9) Rechargeable battery/battery adapter release button ^{B)} | (22) Protective bag ^{B)} |
| (10) Rechargeable battery ^{B)} | (23) Battery bay |
| (11) Gripping surface | (24) Button cell holder |
| (12) Down arrow button | (25) Button cell holder screw |
| (13) Screenshot button | (26) Button cell port |
| | (27) Button cell ^{B)} |

A) USB Type-C® and USB-C® are trademarks of USB Implementers Forum.

B) Accessories shown or described are not included with the product as standard. You can find the complete selection of accessories in our accessories range.

Technical Data

Universal detector	D-tect 200 C
Article number	3 601 K81 6..
Max. object detection depth ^{A)}	
– In dry concrete	
• Metal objects	7.9 in (200 mm)
• Other objects	3.15 in (80 mm)
– Metal objects in early age concrete	2.36 in (60 mm)
– Wooden beams in drywalls	1.5 in (38 mm)
– Objects in horizontal coring bricks	1.96 in (50 mm)
– Objects in other supported wall types	3.15 in (80 mm)
Accuracy of object center measurement ^{A)}	0.2 in (±5 mm)
Accuracy of indicated object depth ^{A)}	
– In dry concrete	0.2 in (±5 mm)
– In early age concrete	0.4 in (±10 mm/m)
Minimum distance between two neighbouring objects ^{A)}	1.6 in (40 mm)
Accuracy of distance measurement ^{B)}	0.4 in (±10 mm/m)
Radar sensor	
– Operating frequency range	1.8–5.8 GHz
– Max. transmission power	0.00001 mW
Inductive sensor	
– Operating frequency range	48–52 kHz
– Max. magnetic field strength (at 33 ft (10 m))	20 dBµA/m
Max. altitude	6,561 Ft (2000 m)
Relative air humidity max.	90 %
Relative air humidity max. for "live" material identification	50 %
Pollution degree according to IEC 61010-1	2 ^{C)}
Detection tool power supply	
– Rechargeable battery (Li-ion)	10.8V/12V Max
Approx. operating time	
– Rechargeable battery (Li-ion)	6 h
Backup power supply for saving the time	
– Button cell	CR2032 (3 V lithium battery)
– Battery life approx.	12 months
Battery Charger List	
–Rechargeable Batteries	BAT414, GBA12V30
–Chargers	BC330, BC430, GAX1218V-30, GAL 12V-20

Technical Data

Universal detector	D-tect 200 C
USB-C cable	
Article number	1600A024N2
Rated voltage	5 V
Capacity	2A max
Weight (with rechargeable battery)	1.5 lbs (0,69–0,70 kg) ^{D)}
Dimensions (length × width × height)	9.1 x 4.17 x 4.4 in (231 × 106 × 112 mm)
Protection rating ^{E)}	IP 5X
Recommended ambient temperature during charging	32 to +95 F (0 °C to +35 °C)
Permitted ambient temperature during operation	14 to +95 F (–10 °C to +50 °C)
Permitted ambient temperature during storage	–20 to +158 F (–20 °C to +70 °C)

A) Depends on material and size of the objects, as well as material and condition of the substrate and the selected view. The best results can be obtained in homogeneous, dry substrates. In addition, a deviation in the indicated object depth of ±0.5 mm/cm for objects deeper than 2.36 inches (60 mm) must be taken into account.

B) Depends on the material and condition of the substrate

C) Only non-conductive deposits occur, whereby occasional temporary conductivity caused by condensation is expected.

D) Depends on battery in use

E) The lithium-ion battery is not covered by IP 5X.

The serial number **(20)** on the type plate is used to clearly identify your detection tool.

Preparation

Tool Power Supply

The tool can be operated with a Bosch rechargeable lithium-ion battery pack.

⚠ WARNING Use only Bosch rechargeable lithium-ion battery packs listed in the technical data section of this manual. Use of other battery packs may increase the risk of fire, personal injury and property damage.

Note: The battery pack is supplied partially charged. To ensure full capacity of the battery pack, completely charge the battery pack in the battery charger before using for the first time.

⚠ WARNING Use only Bosch chargers listed in the technical data section of this manual. Use of other chargers may increase the risk of fire, personal injury and property damage.

The lithium-ion battery pack can be charged at any time without reducing its service life.

Interrupting the charging procedure does not damage the battery pack.

The “Electronic Cell Protection (ECP)” protects the lithium-ion battery pack against deep discharging. When the battery pack is discharged, the tool is switched off by a protective circuit.

- **Do not switch the tool back on after it has been switched off by the protective circuit.** The battery pack can be damaged.

To **insert** the charged battery pack **(10)**, align battery pack and slide it into the battery port until it locks into position. **Don't force.**

To **remove** the battery pack **(10)**, press the battery release tabs **(9)** and pull the battery pack out of the battery port **(23)**. **Do not use force to do this.**

- **Remove the batteries from the tool when not using it for extended periods.** When storing for extended periods, the batteries can corrode and self-discharge.

Preparation

Inserting/changing the button cell (see figure C)

To be able to save the time on the detection tool, a button cell (27) must be used.

Unscrew the screw (25) on the button cell holder (24). Pull the button cell holder out of the button cell port (26) with an auxiliary tool (e.g. a flat-head screwdriver).

Remove the empty button cell (27) and insert a new button cell. Ensure that the polarity is correct according to the illustration on the button cell holder (the positive terminal of the button cell must be facing upwards).

With the button cell fitted, slide the button cell holder (24) into the port (26). Ensure that the button cell holder is inserted correctly and fully,

as otherwise protection from dust and splashes is no longer guaranteed.

Retighten the screw (25) on the button cell holder (24).

⚠ WARNING **Chemical Burn Hazard. Keep lithium button/coin batteries away from children.** This product contains a lithium button/coin cell battery. If a new or used lithium button/coin cell battery is swallowed or enters the body, it can cause severe internal burns and can lead to death in as little as 2 hours. Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

Operating Instructions

Protect the detection tool against moisture and direct sun light.

Do not expose the detection tool to any extreme temperatures or variations in temperature. In case of large variations in temperature, leave the detection tool to adjust to the ambient temperature before switching it on. The accuracy of the detection tool and the functionality of the display may be compromised if exposed to extreme temperatures or variations in temperature.

Hold the detection tool only at the intended grip area (11), so as not to influence the measurement.

Use or operation of transmitting systems, such as WLAN, UMTS, radar, transmitter masts or microwaves, in the close proximity can influence the measuring function.

The measuring values can be impaired through certain ambient conditions. These include, e.g. the proximity of devices that produce strong electric, magnetic or electromagnetic fields, moisture, metallic building materials, foil-laminated insulation materials or conductive wallpaper or tiles. Therefore, also observe other information sources (e.g. construction plans) before drilling, sawing or routing into walls, ceilings or floors.

Do not wear gloves when taking measurements and make sure that you are properly earthed. If you are not properly earthed, the classification of the object (live wire) may be impaired.

Switching on/off

► **Before switching on the detection tool, ensure that the sensor area (19) is dry.** If necessary, use a cloth to dry the detection tool.

► **If the detection tool has been exposed to a significant change in temperature, leave it to adjust to the ambient temperature before switching it on.**

To **switch on** the detection tool, press either the on/off button (8) or the red start button (16).

To **switch off** the detection tool, press the on/off button (8) again.

If no button on the detection tool is pressed for approx. 5 minutes and the detection tool is not moved, the detection tool will automatically switch itself off to preserve battery life. You can change the switch-off time in the main menu (see "Main Menu", page 20).

Operating Instructions

Overview of the measuring modes

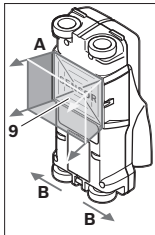
The measuring tool has the following measuring modes:

- **<Object Detection>**: For detecting objects in walls, floors and ceilings,
- **<Leakage Detection>**: For detecting leaks,
- **<Distance Measurement>**: For measuring distances.

You can change the measuring mode in the main menu (see "Main Menu", page 20).

Measuring Mode <Object Detection>

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 in (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 15.75 in (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, aluminum)
- Reinforcing steel
- Wooden studs
- Hollow spaces

Special measuring cases

Unfavorable conditions fundamentally impair the measuring result:

- Multi-layered walls
- Empty plastic pipes and wooden beams in cavities and lightweight partition walls
- Objects lying at an angle in the wall
- Metal surfaces and moist areas; if in a wall, these may be displayed as objects under certain conditions (e.g. high moisture content). Please note that concrete requires several months to dry out completely.
- Cavities in a wall; these may be displayed as objects
- Proximity to devices that generate strong magnetic or electromagnetic fields, e.g. mobile phone base stations or generators

► **Before drilling, sawing or routing into walls, refer to other sources of information to ensure that you eliminate hazards.** Since the measuring results can be influenced by ambient conditions or the wall material, there may be a hazard even though the indicator does not indicate an object within the sensor range.

Change the wall type

Always set the appropriate wall type for best possible measuring results. To do this, repeatedly press the left-hand **(14)** or right-hand arrow button **(7)** until the required wall type is displayed. Press the red start button **(16)** to accept the selection.

The maximum measuring depth is 3.15 in (8 cm). Any deviations from this value are described in the individual wall types and views.

Wall Type <Brick / Universal>

The **<Brick / Universal>** wall type is suitable for most applications in solid masonry or other

Operating Instructions

homogeneous materials. Plastic and metal objects as well as electrical and other cables are displayed. Cavities in masonry or empty plastic pipes with a diameter of less than 0.8 in (2 cm) may not be displayed.

Wall Type <Concrete>

The <Concrete> wall type is suitable for applications in dry concrete. It displays plastic and metal objects as well as electrical and other cables. Empty plastic pipes with a diameter of less than 0.8 in (2 cm) may not be displayed.

When selecting the wall type, you can additionally set the maximum measuring depth between 3.15 (8 cm) and 7.8 in (20 cm).

Wall Type <Drywall>

The <Drywall> wall type is suitable for detecting timber joists and metal supports, as well as electrical and other cables in drywalls (wood, plasterboard, etc.). Filled plastic pipes and wooden beams appear identical on the display. Empty plastic pipes are not recognized.

Wall Type <Panel Heating>

The <Panel Heating> wall type is especially suitable for detecting metal, metal-composite and water-filled plastic pipes and electrical cables. Empty plastic pipes are not displayed.

Wall Type <Vertical Coring Brick>

The <Vertical Coring Brick> wall type is especially suitable for applications in vertically perforated bricks. Vertically perforated bricks are bricks with many small, mostly vertical, cavities. It displays metal objects, electrical and other cables, as well as water-filled plastic pipes. Cavities or empty plastic pipes may not be displayed.

Wall Type <Horizontal Coring Brick>

The <Horizontal Coring Brick> wall type is especially suitable for applications in horizontally perforated bricks. Horizontally perforated bricks are bricks with a few, mostly horizontal, cavities. It displays flat lying metal objects, electrical and other cables, as well as water-filled plastic pipes up to a maximum measuring depth of 2 in (5 cm). Cavities or empty plastic pipes may not be displayed.

Wall Type <Early Age Concrete>

The <Early Age Concrete> wall type is especially suitable for applications in concrete which has not yet fully cured and dried. Metal objects, plastic and metal pipes as well as electrical

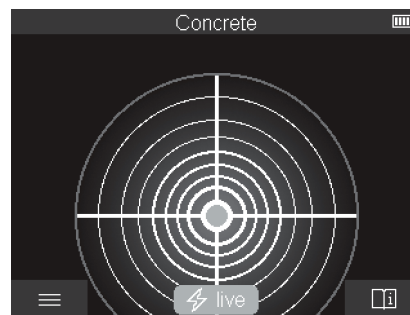
cables are displayed. A distinction between live and voltage-free conductors is not possible. The maximum measuring depth is 6 cm.

Please observe that concrete requires several months to cure and dry completely.

Change the view

To change the view, repeatedly press the top (17) or bottom select button (12) until the required view is displayed. Press the red start button (16) to accept the selection.

<Spot View>



In the <Spot View>, a first measuring result is already displayed without moving the detection tool over the substrate. It is therefore particularly suitable for measurements in corners or narrow places. The maximum measuring depth is 6 cm. Objects found are displayed with material properties, if available, but without depth information.

Whenever possible, you should also move the detection tool over the substrate in the <Spot View> to ensure the best possible measurements. Locating plastic pipes and timber joints is particularly limited without moving the detection tool.

Measuring indicator:

If no object is found, only the outer circle will appear on the display and it will light up green.

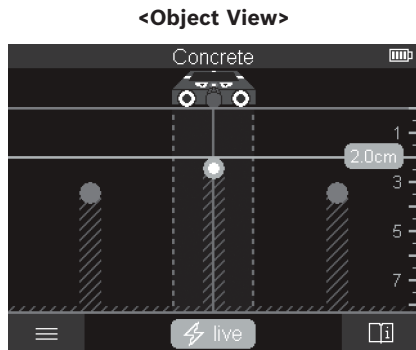
If there is an object nearby, the outer circle will light up red. The closer the detection tool is to an object, the more the deflection in the measuring indicator (number of circles) will increase. The deflection decreases when the detection tool moves away from the object.

Orientation arrows are displayed if the signal strength is sufficient. To specifically locate the object's center, move the detection tool in the direction of the orientation arrows.

Operating Instructions

Above the center of an object, the measuring indicator will exhibit maximum deflection, and with sufficient signal strength, a center cross is displayed. The color coding for the material property is identical to that in the <Object View>.

If the orientation arrows or the center cross are not displayed, an object may nevertheless be located in the immediate vicinity.



The <Object View> offers the best possible measuring results and the maximum measuring depths. The detected objects are displayed over the measuring path with depth information and, if available, with material properties.

Measuring process:

- Place the detection tool on the substrate and move it over the substrate in the direction of travel. The measuring results are shown on the display after a minimum measuring path of approx. 4 in (10 cm).
- Always move the detection tool in a straight line while applying light pressure over the substrate so that the wheels remain in contact with the wall.
- To obtain optimum measuring results, move the detection tool slowly over the entire area to be checked and observe the measuring results as you move the tool back. The measuring path should be at least 15.75 in (40 cm).
- You can start a new measurement at any time by pressing the red start button **(16)**.
- If you lift the detection tool away from the wall during the measuring process, the last measuring result obtained remains on the display. The measurement is restarted when the device is set down or moved.

The tool's function allows for reliable detection of the nearest edges of objects that run transverse to the direction of movement of the detection tool (see figure B). For this reason, always move crosswise over the area to be checked.

To locate objects, moving the detection tool once over the measuring path is sufficient.

To identify the exact location of a detected object and to mark the object, move the detection tool back over the measuring path.

The direction of a found object in a wall can be determined by moving along several offset-measuring paths one after another.

Measuring indicator:

If no object was detected in the sensor range, the dashed lines and the center line are completely green.

If an object was detected under the sensor, it will appear in the sensor range between the two dashed lines of the display. The two dashed lines and the center line are at least partially red.

In the right-hand depth scale, depending on the setting, the object depth to the nearest edge of the found object or the maximum permissible drilling depth is displayed. You can change between the two depths in the main menu. Always use the display of the maximum permissible drilling depth when using the detection tool for the corresponding application.

The representation of the properties of detected objects in the display can deviate from the actual object properties. In particular, very thin objects appear thicker on the display.

Larger, cylindrical objects (e.g. plastic pipes or water pipes) may appear narrower on the display than they actually are.

Depending on type and depth of the object, identification of the material is possible. The type of material can be recognized by the color of the object in the display:

Yellow:	Live object
Blue:	Magnetic metal (e.g. reinforcing steel)
Turquoise:	Non-magnetic metal (e.g. copper pipe)
White:	Non-metal material (e.g. wood, plastic)
Grey:	Material property unknown

Operating Instructions

Information on material identification:

- For live objects, no further characteristic is displayed.
- At a relative humidity above 50 %, detecting the "live" property may be limited.

Power Cable

When a live conductor is detected: color of the object in display is yellow, no further characteristic is displayed.

Note: "Live" conductors can be detected easier when power consumers (e.g. lamps, machines) are connected to the sought conductor and switched on.

"Live" Wire Detection

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

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 detection tool 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

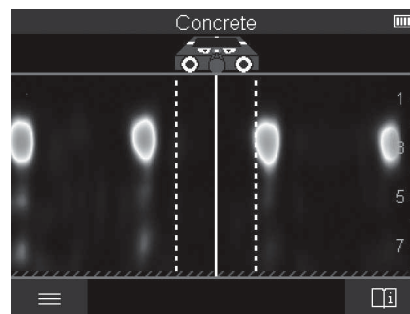
sources (e.g. construction plans) before drilling, sawing or routing into walls, ceilings or floors.

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.

Marking objects:

- If you want to mark a found object on the substrate, move the detection tool so that the object is centered on the center line in the display. Use the upper marking aid (1) as well as the left-hand and right-hand marking aid (5) to make a mark on the substrate. The center of the object is located at the intersection point of the drawn markers.
- Alternatively, move the detection tool to the left or right until the found object is centered on one of the two dashed lines in the display. Then it is located under the corresponding outer edge of the detection tool. Draw a line along this outer edge on the substrate and mark the position of the corresponding lateral marking aid (5) on this line. This is the center of the object.
- The direction of a found object in a wall can be marked by moving along several offset measuring paths one after another and connecting the respective markings.

<Signal View 2D>



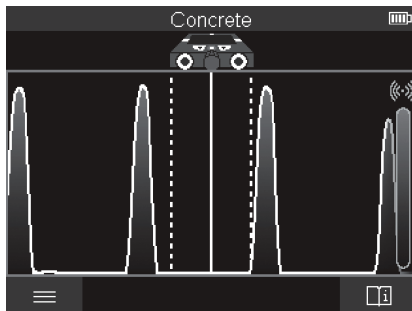
The <Signal View 2D> indicates the signal strength at each measuring point in combination with the object depth. The <Signal View 2D> is a variant of the <Object View>. It displays signal strengths instead of object symbols. The maximum signal strength represents the upper edge of the objects.

Operating Instructions

The **<Signal View 2D>** can be used to locate closely adjacent objects and to better assess complicated material structures. Weaker objects and objects in a row can also be found under certain circumstances.

Follow the instructions on the measuring process in **<Object View>**.

<Signal View>

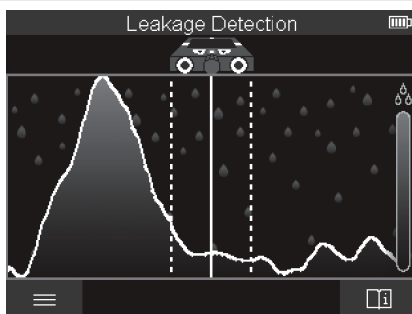


The **<Signal View>** displays the signal strength at each measuring point without information on the object depth.

The **<Signal View>** can be used to locate closely adjacent objects and to better assess complicated material structures based on the signal path.

Follow the instructions on the measuring procedure in **<Object View>**.

Measuring Mode <Leakage Detection>



In this measuring mode, the relative material moisture of the surface is displayed. It is therefore suitable for locating the point of maximum material moisture and thus a possible leakage.

Different materials on the surface, flat lying

objects and inhomogeneities in the substrate (such as joints) can distort the result.

Measuring Mode <Distance Measurement>

In this measuring mode, you can measure distances on the wall. It is only possible to take this measurement in a straight line in the direction of travel of the wheels.

Place the detection tool onto the wall at the starting point for the measurement. The reference point of the measurement is always the top marking aid **(1)**. If necessary, press the red start button **(16)** to delete the displayed measured value and to start a new measurement.

Move the detection tool over the wall in a straight line in the required direction while applying uniform pressure. The distance to the starting point is continuously measured.

The measured value shown on the display is the distance to the starting point for the current measurement, not the total distance travelled (as you move the tool back towards the starting point, the measured value will be smaller).

If a required distance is to be marked on the wall, mark it using the top marking aid **(1)**.

Save/transfer the measuring results

Saving Measuring Results as an Image

Measure the required range as usual. Then press the screenshot button **(13)**.

If an SD card is inserted, the images are saved on the card. Otherwise, the images are stored in the internal memory of the detection tool and can be transferred via the USB Type-C® interface.

Data transfer via USB Type-C® interface

⚠ WARNING Do not use the provided USB-C cable in application higher than 5V 2A. Using USB-C cable beyond its rating may increase the risk of fire, personal injury and property damage.

Open the flap for the USB Type-C® port **(4)**. Connect the USB Type-C® port of the switched-off detection tool to your PC via the provided USB Type-C® cable **(21)**.

Switch on the detection tool using the on/off button **(8)**.

Operating Instructions

Open the file browser on your PC and select the BOSCH D-tect 200 C drive. The saved files can be copied from the internal memory of the detection tool, moved to your PC or deleted.

As soon as you have completed the required operation, disconnect the drive following the standard procedure.

Note: Always disconnect the drive from the operating system of the PC first (eject drive), as failure to do so may damage the internal memory of the detection tool.

Then switch off the detection tool using the on/off button (8). Remove the USB Type-C® cable (21). Close the flap for the USB Type-C® port (4) to protect it from dust or splashes.

Note: Use the USB Type-C® interface to connect the detection tool to a PC only. The detection tool may be damaged if connected to other devices.

Note: The USB Type-C® interface can only be used for data transfer. Rechargeable batteries or other devices cannot be charged by this interface.

Data Transfer via SD Card

If an SD card is inserted in the detection tool, images are automatically stored on the card when saved, not in the internal memory of the detection tool.

To insert the SD card, open the flap of the slot (3). Pay attention to the correct orientation when inserting the SD card. Close the flap of the slot (3) to protect it from dust or splashes.

Note: Switch off the detection tool before removing the SD card. Otherwise, the SD card may be damaged.

Main Menu

To access the main menu, press the left-hand function button (15).

Navigating in the menu

- To scroll through a menu: Press the up (17) or down (12) arrow buttons.
- To switch to a submenu: Press the red start button (16) or the right-hand arrow button (7).
- To confirm a selected menu option: Press the red start button (16).
- To change a menu option using the on/off switch: press either the red start button (16),

the left-hand (14) or the right-hand arrow button (7). This will also save the menu option.

- To go back to the next highest menu: Press the left-hand function button (15) under the Back arrow.
- To leave the main menu and go back to measuring: Press the right-hand function button (6) under the Home symbol.

Menu options

- <Measuring mode>

Set the required measuring mode (see "Overview of the measuring modes", page 15).

Once you have made your selection, the detection tool will directly switch to the selected measuring mode.

In the <Object Detection> measuring mode, you can also set the wall type suitable for the planned measurement and the view for the measurements.

- <Device settings>

- <Ruler>: Switch on/off the ruler for the measuring modes <Object Detection> (with the exception of the <Spot View>) and for the <Leakage Detection>. Using the ruler, you can determine the distance between object centers, for example. Press the right-hand function button (6) to set the ruler to zero.
- <Depth mode>: Choose between the indicator for the <Object depth> and the maximum permissible <Drilling depth>.
- <Display brightness>: Set the brightness level of the display backlight.
- <Audio signals>: Switch the audio signal on or off. When the audio signal is switched on, an audio signal sounds every time a button is pressed and every time an object is found within the sensor range.
- <Start-up settings>: Choose the settings (e.g. wall type, view, ruler) that the detection tool starts up when it is switched on. Choose between applying the settings from the last time the tool was switched off and personalized basic settings (these are the current settings in the main menu).
- <Switch off after ...>: Choose the time interval after which the detection tool will switch off automatically if it is not in use.

Operating Instructions

- **<Language>**: Select the language used in the display.
 - **<Date & time>**: You can set the date and time for saving images, and select the date and time format. Change the button cell (see "Inserting/changing the button cell (see figure C)", page 14) when the time and date can no longer be saved.
 - **<Measurement unit>**: Select the unit of measurement for the measuring indicators.
 - **<Factory reset>**: You can reset all of the menu options to factory settings. Simultaneously, all of the saved images will be permanently deleted.
- **<Device info>**
Here you will find device information, such as the installed software version and legal information.

Trouble Shooting

Cause	Corrective measures
Detection tool cannot be switched on	
Battery pack or batteries empty	Charge the battery pack or change the batteries.
Detection tool cannot be connected to a PC via USB.	
Detection tool not recognized by PC.	Check whether the driver on your PC is up to date. It may be necessary to have a newer operating system version on your PC.
USB Type-C® port (4) or USB cable (21) faulty	Check whether the detection tool can be connected to a different USB cable or a different PC. If it cannot, send the detection tool to an authorized Bosch after-sales service center.

If the info/help symbol is shown on the display above the right-hand function button **(6)**, you can access context-related information and help by pressing the right-hand function button (available when changing wall type and view, as well as in all measuring modes of the **<Object Detection>** and in the **<Leakage Detection>**).

Maintenance and Service

⚠ WARNING **Check the detection 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.

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 **(22)**.

DISPOSAL

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

Limited Warranty of Bosch Laser and Detection tool Products

Robert Bosch Tool Corporation ("Seller") warrants to the original purchaser only, that all BOSCH laser and detection 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 detection 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 detection 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 detection tool product. A maximum of 2 returns per customer will be permitted.

- **First Year- OTC Warranty.** BOSCH will replace your laser or detection tool product that has failed when used in conformance with product instructions and warnings, with a new laser or detection tool product of comparable features, for free, any time during the first year after purchase. This warranty does not apply if your laser or detection tool product fails solely due to the need for recalibration.

- **2- and 3-Year Exchange.** BOSCH will replace your laser or detection tool product that has failed when used in conformance with product instructions and warnings, with a new or reconditioned laser or detection tool product of comparable features, for an exchange cost. This warranty does not apply if your laser or detection tool product fails solely due to the need for recalibration.

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