FUTECH

futech-tools.com

MULTISCAN

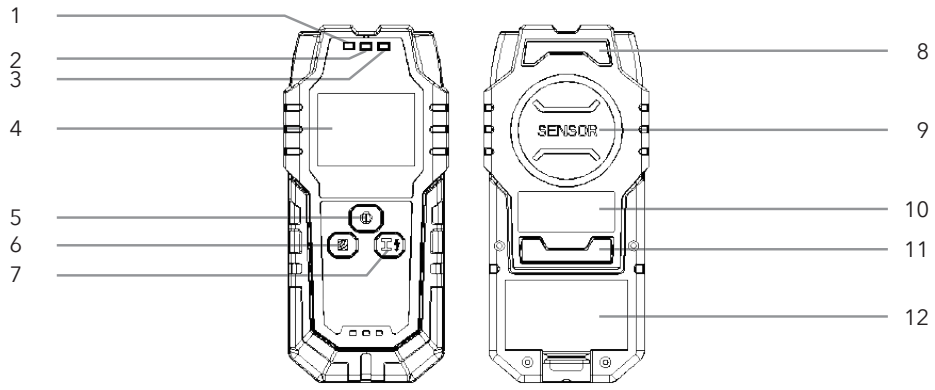
MANUAL

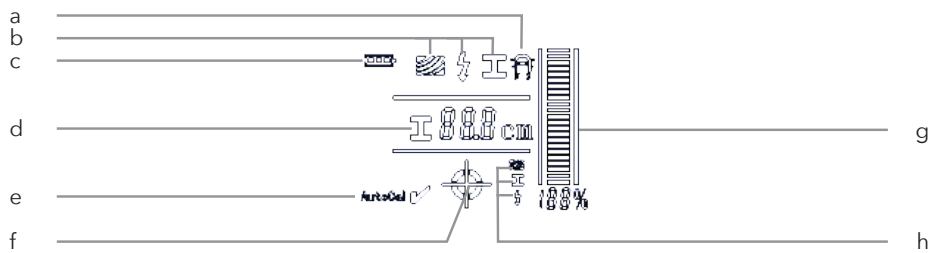
196.20

Congratulations!
On choosing this FUTECH instrument. FUTECH provides measuring instruments of precision and quality. Contributions from professional end users enable us to offer innovative, easy-to-use equipment.

MULTISCAN

IMPORTANT!
Read the instructions for use carefully before using the instrument. Keep them in a safe place for consultation when necessary.
Whether on or off, keep the instrument out of reach of children.
This equipment is a high quality precision instrument which must be handled with care. Avoid shocks and vibration. After use, always replace the instrument in its carrying bag. Make sure that the bag and instrument are dry; otherwise condensation may occur in the device. Make sure that the windows are free of dirt, and clean them using a soft cloth and a glass cleaning product only. Always use the locking device during transportation. Regularly inspect the accuracy of the instrument, especially when starting any major square-setting work. You have sole responsibility for the accuracy of your work. Do not use any optical equipment such as a magnifying glass to view the laser beam, and take care to remove all reflecting objects to avoid damage to the eye. Locate the laser in such a way that it is not possible for any person to look at the laser beam (intentionally or otherwise). Under no circumstances take the instrument apart, since this may expose you to powerful laser radiation. The laser is only to be used for the projection of laser lines. Do not use the instrument in rain or near flammable materials. Technical modification or alterations to the instrument may be carried out without prior notice. The manufacturer's responsibility shall in no case exceed the value of the costs of repair or replacement of the instrument. Respect the environment and do NOT discard the instrument or batteries in household waste. Take them to a recycling centre.





Parts of the housing

1. Red indicator light
2. Yellow indicator light
3. Green indicator light
4. Display
5. On/Off button
6. Wood detection button
7. Metal/live wire detection button
8. Felt pad 1
9. Sensor area
10. Product label area
11. Felt pad 2
12. Latch of battery lid

Display

a. indicator for ferro-/non-ferro metals
b. indicator current detection mode (wood, live wire, metal)
c. Battery indicator
d. Metal detecting depth
e. "Autocal" calibration indicator
f. Indiator to find the detection area center.
g. detection signal strenght
h. Detected object attribute display area for non-current mode

First use / Switching on and off
Remove any protective films where applied. Open the battery compartment and insert the 9V batterie, please taking care to observe the indicated polarity.
Press the switch on button to switch on the measuring tool. After a short test, the detector is ready to use. The measuring tool automatically enter the function model of detecting metal.

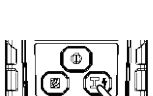
If the buzzer is always making a beeping sound and the red LED is always flashing, the measuring tool needs to be calibrate.

Important
- *If the measuring tool is not used for a long period of time, the battery must be removed. The battery can corrode or discharge itself over long periods.*
- *Protect the measuring tool against moisture and direct sun irradiation.*
- *Before switching the measuring tool on, make sure that there is no moisture on the sensor area. If required, wipe the measuring tool using a dry cloth.*
- *If the measuring tool was subject to an extreme temperature change, allow it to adjust to the ambient temperature before switching on.*

Calibration
Hold the measuring tool without metal or strong magnetic field interference environment (for example: hold the measuring tool up in the air).
Press the metal button again until the buzzer stops making a sound and the green light is lit. When the calibration is done, release the button to detect metal.

Detecting objects

- Metal objects



Press the metalbutton to enter de metal-detection mode. The ...-symbol appears in the display and the green LED is lit.

Place the measuring tool onto the surface to be scanned and move it sidewards.
If the measuring tool comes close to a metal object, the amplitude of the measuring indicator indrease. When it moves away from the metal object, the amplitude decreases. At the position of maximum amplitude, the metal object is located below the center of the sensor. At this time, indicator ... in the display will be indicated and a steady tone sounds.

When scanning metal objects, the depth indication (d) will be displayed. The accuracy of the depth value is in relationship with the shape and position of the scanned object. When the measured object is a standard rebar of diameter 20 and he is positioned relatively parallel to the detector, the accuracy of the depth value is the best. The depth value is only as reference.

Rebar Copper tube	Ø 20	8cm / 6cm
	Ø 16	7cm / 6cm
	Ø 12	6cm / 5cm
	Ø 6	5cm / 5cm

- Wooden objects

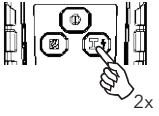
To scan wooden objects, hold the detector close to the wall and press the wood detection button. Keep sure the measuring tool don't move during the short calibration. The green light lights up when finished. The wood icon is visible on the screen.

Place the measuring tool on the surface and move around. When the detector come close to a wooden object, the detection strenght (g) will increase. When the detector moves away from the wooden object, the detection strenght (g) will decrease. When the signal strenght reaches the maximum, the wooden object is located below the center of the sensor. The cross icon will appear in de detection area indacator (f).

Wood	Wooden beam	2cm
	Wooden batten	2cm

· *Caution: When the detector was above the wood inclusions when he begins to detect objects and you move the measuring tool to scan objects, it's possible the buzzer sounds "dididid" and the indicator flashes yellow or red. If this conditions happens, you have to repeat the detectoin. You have to change the location of the detector during startup.*

- "Live" wires



Press two times the "metal - a/c power" button. The live wire symbol appears in the display. If there are no live wires around the detector, but the buzzer always sounds "dididid" and the indicator light flashes red, or there are live wires around the detector but they can't be detect, the measuring tool must be calibrated. (see "Calibration").

Live wire and cable	5cm

The detector van detect 50 of 60 Hz AC live power cables. Other wires can only be detected as metal objects.

· *Live wares/conductors are indicated both during a metal scan as well as during a wood scan. The Live wire symbole appears in the display when a live wire is detected. At this time, move the the measuring tool over the surface repeatedly to determine the specific location of the live cables. After a several times, the detector is able to pinpoint the hiding place of "live" wires/conductors.*

The detector can also find 110 Volts, 240 Volts and 380 Volts (AC) live cables.

Guidance for operation mode
Measuring values can be impaired through certain ambient conditions. These includes:
· the proximity of other equipment that produce strong (electro-)magnetic fields
· moisture
· metallic building materials
· foil-laminated insulation materials
· conductive wallpapers.
Therefor, please also observe other invormation sources (e.g. construction plans) before drilling, sawing or routing into walls, ceilings or floors.

“Autocal” Calibration Indicator
When the checkmark behind “Autocal” flashes over a longer period or if it is not displayed anymore, reliabe scanning is no longer possible. In this case, send the measuring tool to repair.

Maintenance / Service / Cleaning
· *Wipe away debris or contamination with a dry, soft cloth. Do not use cleaning agents or solvents.*
· *In order not to affect the measuring function, decals/stickers or name plates, especially metal ones, may not be attached in the sensor area, on the front or backside of the measuring tool*
· *Store and transport the measuring tool only in the supplied protective case.*

GENERAL

Description

The following directions should enable the person responsible for the product, and the person who actually uses the equipment, to anticipate and avoid operational hazards. The person responsible for the product must ensure that all users understand these directions and adhere to them.

Adverse Use

- Use of the product without instruction.
- Use outside of the intended limits.
- Disabling safety systems.
- Removal of hazard notices.
- Opening the product using tools, for example screw- driver, unless this is specifically permitted for certain functions.
- Modification or conversion of the product.
- Use after misappropriation.
- Use of products with obviously recognizable damages or defects.
- Use with accessories from other manufacturers without the prior explicit approval of FUTECH.
- Inadequate safeguards at the work site, for example when using on or near roads.
- Deliberate dazzling of third parties.
- Controlling of machines, moving objects or similar monitoring application without additional control and safety installations.

WARNING

Adverse use can lead to injury, malfunction and damage. It is the task of the person responsible for the equipment to inform the user about hazards and how to counteract them. The product is not to be operated until the user has been instructed on how to work with it.

LIMITS OF USE

Environment

Suitable for use in an atmosphere appropriate for permanent human habitation: not suitable for use in aggressive or explosive environments.

DANGER

Local safety authorities and safety experts must be contacted before working in hazardous areas, or in close proximity to electrical installations or similar situations by the person in charge of the product.

RESPONSIBILITIES

Manufacturer of the product

Laseto N.V., Belgium, BE0808.043.652, hereinafter referred to as FUTECH, is responsible for supplying the product, including the user manual and original accessories, in a completely safe condition.

Manufacturers of non FUTECH accessories

The manufacturers of non FUTECH accessories for the product are responsible for developing, implementing and communicating safety concepts for their products, and are also responsible for the effective- ness of those safety concepts in combination with the FUTECH product.

Person in charge of the product

The person in charge of the product has the following duties:

- To understand the safety instructions on the product and the instructions in the user manual.
- To be familiar with local regulations relating to safety and accident prevention.
- To inform FUTECH immediately if the product and the application becomes unsafe.

HAZARDS OF USE

WARNINGS

- The person responsible for the product must ensure that it is used in accordance with the instructions. This person is also accountable for the training and the deployment of personnel who use the product and for the safety of the equipment in use.
- The absence of instruction, or the inadequate imparting of instruction, can lead to incorrect or adverse use, and can give rise to accidents with far-reaching human, material, financial and environmental conse- quences.
- All users must follow the safety directions given by the manufacturer and the directions of the person responsible for the product.
- Watch out for erroneous measurement results if the product has been dropped or has been misused, modified, stored for long periods or transported.
- Periodically carry out test measurements and perform the field adjustments indicated in the user manual, particularly after the product has been subjected to abnormal use and before and after important measurements.
- If the product is used with accessories, for example masts, staffs, poles, you may increase the risk of being struck by lightning.
- Do not use the product in a thunderstorm.
- Inadequate securing of the working site can lead to dangerous situations, for example in traffic, on building sites, and at industrial installations.
- Always ensure that the working site is adequately secured. Adhere to the regulations governing safety and accident prevention and road traffic.
- If the accessories used with the product are not properly secured and the product is subjected to mechanical shock, for example blows or falling, the product may be damaged or people may sustain injury.
- When setting-up the product, make sure that the accessories are correctly adapted, fitted, secured, and locked in position. Avoid subjecting the product to mechanical stress.
- During the transport, shipping or disposal of batteries it is possible for inappropriate mechanical influences to constitute a fire hazard.
- Before shipping the product or disposing of it, discharge the batteries by running the product until they are flat. When transporting or shipping batteries, the person in charge of the product must ensure that the applicable national and international rules and regulations are observed. Before transportation or shipping contact your local passenger or freight transport company.
- High mechanical stress, high ambient temperatures or immersion into fluids can cause leackage, fire or explosions of the batteries.
- Protect the batteries from mechanical influences and high ambient temperatures. Do not drop or immerse batteries into fluids.
- Short circuited battery terminals can overheat and cause injury or fire, for example by storing or transporting in pockets if battery terminals come in contact with jewellery, keys, metallized paper or other metals.
- Make sure that the battery terminals do not come into contact with metallic objects.
- During the operation of the product there is a hazard of squeezing extremities by moving parts.
- Keep extremities in a safe distance from the moving parts. If the product is improperly disposed of, the following can happen: If polymer parts are burnt, poisonous gases are produced which may impair health. If batteries are damaged or are heated strongly, they can explode and cause poisoning, burning, corrosion

or environmental contamination. By disposing of the product irresponsibly you may enable unauthorized persons to use it in contravention of the regulations, exposing themselves and third parties to the risk of severe injury and rendering the environment liable to contamination.

· The product must not be disposed with household waste. Dispose of the product appropriately in accordance with the national regulations in force in your country.

LASER CLASSIFICATION

General

The following directions (in accordance with the state of the art - international standard IEC 60825-1(2007-03) and IEC TR 60825-14 (2004-02)) provide instruction and training information to the person responsible for the product and the person who actually uses the equipment, to anticipate and avoid operational hazards. The person responsible for the product must ensure that all users understand these directions and adhere to them.

Products classified as laser class 1, class 2 and class 3R do not require:

· laser safety officer involvement,

· protective clothes and eyewear,

· special warning signs in the laser working area

if used and operated as defined in this user manual due to the low eye hazard level. Products classified as laser class 2 or class 3R may cause dazzle, flash blindness and afterimages, particularly under low ambient light conditions.

WASTE DISPOSAL

Must be in line with the requirements of environmental protection and recycling of the damaged detector, accessories and packaging materials.

Only for the countries of the European Union:

Don't throw away the damaged detector in the general household rubbish, fire or water!

According to the European statute 2002/96/EG for waste electric and electronic machine, and the provisions of the decree that each country quoted, please separate collection of the detector. Use the way of meeting the requirements of environmental protection to recover, recycle the waste detector, rechargeable batteries/batteries. Please recycle rechargeable-batteries/batteries as regulated by law.

Only for the countries of the European Union

According to 91/157/EWG regulations, Must use the way of meeting the requirements of environmental protection to recover, recycle the damage or old rechargeable-batteries/batteries.

Futech reserves the right to change, amend or modify this manual at any time without notice.

TECHNICAL SPECIFICATIONS

DETECTION DEPTH FOR FERROUS METALS	80MM
DETECTION DEPTH FOT NON-FERROUS METALS	60mm
DETECTION DEPTH FOR LIVE CONDUCTORS	50MM
DETECTION DEPTH FOT WOOD	20MM
GRAPHIC INDICATION OF DETECTION DEPTH	✔
CM-INDICATION OF DETECTION DEPTH	ONLY FOR METALS, NOT FOR WOOD
BATTERIES	1X 9V
AC POWER CONNECTOR	✕
DIMENSIONS	68 X 146 X 28
WEIGHT	0,15KG

Remove batteries from a device if it is not used for several months to prevent damage.

If your instrument does not reach the required tolerance, it should be returned to your service centre or to your reseller for service. Repairs carried out by unauthorised personnel will automatically and always invalidate the guarantee.

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