TEQSAS

LAP-TEQ PLUS

Operating Manual

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1 Before you get started…

1.1 Intended use

With LAP-TEQ PLUS you can measure the inclination of speaker systems.

LAP-TEQ PLUS measures the vertical angle between its longitudinal axis and the earth's surface. This provides information on the vertical orientation of the speaker element.

Any other use not described in this operating manual is unauthorised misuse. The manufacturer will not be liable for damages incurred from such misuse.

Never use the device as a display device or in public transport (road traffic, aviation, etc.).

1.2 What do the symbols used here mean?

Danger notices and warnings are clearly designated in the operating manual. The following symbols are used:

⚠ Danger!	
	**Immediate danger of death or injury!** Immediately dangerous situation that will result in death or severe injuries.

⚠ Warning!	
	**Probable danger of death or injury!** Generally dangerous situation that can result in death or severe injuries.

⚠ Caution!	
	**Potential danger of injury!** Dangerous situation that can result in injuries.

Attention!	
	Danger of damage to device! Situation that can result in material damage.

Notice
Information provided for better understanding of the processes.

2 For your safety

⚠ Warning!	
	**Failure to comply with the safety information and instructions can cause electric shock, fire and/or severe injuries.** ► Read all safety information and instructions.

2.1 General safety information

- Store all safety information and instructions for future reference. The term device used in the safety information refers to mains-powered devices (with a mains cable) and to battery-powered devices (without a mains cable).
- Danger of death and accident for small children and children! Never leave children unattended with the packaging material and the product. There is a danger of suffocation from the packaging material and danger of death from strangulation. Children often underestimate dangers. Always keep children away from the product. The product is not a toy.
- For safe use of this device the user of the device must have read and understand this operating manual prior to the first use of the device.
- If you sell or pass on the device, be sure to include this operating manual with the device.
- This device is not intended for use by persons (including children) with impaired physical, sensory or mental capacities or insufficient experience and/or insufficient knowledge, unless they are supervised by a person who is responsible for their safety or receive instructions from that person on how to use the device.
- The device may be used only if it is in perfect working order and completely mounted. If the device or a component thereof is defective, it must be taken out of operation and repaired by a specialist or properly disposed of.

- Use the device only for the purpose for which it is intended.
- Keep children away from the device! Store the device safely out of the reach of children and unauthorised persons.
- Use and store the device only within the permissible ambient conditions (temperatures, humidity, etc.).

2.2 About laser beams

- Do not look into the beam, even at large distances.
- Never point the measuring beam at people, other living beings or reflective surfaces.
- Commercially available laser glasses do not provide protection against the dangers of laser beams. They only help to better recognise the laser beam.

2.3 Workplace safety

- Keep your workplace clean and well lighted. Disorder and unlighted workplaces can cause accidents.
  Observe the applicable workplace and accident prevention regulations for your country.
- Do not use the electrical device in potentially explosive environments containing flammable liquids, gases or dusts. Electric tools generate sparks, which can ignite dust or vapours.

2.4 Electrical safety

- In dry environments it is possible for static electricity to occur. In dry rooms, touch a metal object to discharge static electricity before operating the device.
- Do not misuse the cables to carry or suspend the device or to pull the plug from the electrical outlet. Keep cables away from heat, oil, sharp edges or moving device components. Damaged or tangled cables increase the risk of damage to the device.
- If you use the device outdoors, use only extension cables that are suitable for outdoor use. The use of an extension cable that is suitable for outdoor use reduces the risk of damage to the device.

2.5 Human safety

- Be attentive, pay attention to what you are doing, and use common sense while working. Do not use the device if you are tired or under the influence of drugs, alcohol or medications. One moment of carelessness during use of the device can result in serious injuries. The sensor must be bolted firmly to the flying frame or secured by suitable means against falling.

2.6 Handling of battery-powered devices

- Use only chargers approved by the manufacturer with the specifications indicated on the type plate of the rechargeable battery. The use of other chargers can cause the danger of injuries and material damage from exploding batteries.
- Use the device only with the intended batteries. The use of other batteries can cause injuries and the risk of fire.
- Do not expose the battery to heat, flame, water or moisture. There is a danger of explosion.
- Vapours can escape from a damaged battery or through improper use of the battery. Provide for adequate ventilation and in case of symptoms consult a physician. The vapours can irritate your respiratory passages and cause diseases.

2.7 Safety information for battery chargers

- Keep the charger away from rain or moisture. Penetration of water into a charger increases the risk of electric shock.
- Keep the charger clean. A dirty charger involves the risk of electric shock.
- Check the charger, including the cable and plug, before each use. Do not use the charger if you detect signs of damage.
- Do not open the charger yourself; have it repaired only by a qualified specialist, and only using original replacement parts. Damaged chargers, cables and plugs increase the risk of electric shock.
- Do not operate the device on a flammable surface (such as paper, textiles, etc.) or in a flammable environment. There is a risk of fire from the heat generated by the charger.
- Supervise children and do not allow children to play with the charger. Children and persons with mental or physical impairments may use the

charger only under supervision or if they have been instructed in its use. Careful instruction reduces the possibility of incorrect operation and injuries.

2.8 Service

- Have your device repaired only by qualified specialists, and only using original replacement parts. This will ensure the long-term safety of the electric tool.
- Provide for adequate lighting when working with the device. Poor visibility can increase the risk of accidents.
- Use only accessories that are intended especially for use with this device and recommended by the manufacturer. The fact that you can attach accessories to the device is no guarantee for their safe and trouble-free use.
- The device can show signs of wear over time.
- The use of non-approved accessories can result in damage or wear that is not covered by the warranty.

2.9 Special instructions concerning the device

- Do not use the device in potentially explosive areas or in the vicinity of flammable liquids or gases!
- Paint and labels can cause moving parts to stick, therefore impairing correct operation.
- If you are have an allergic reaction to the paint or metal parts of the device, the result may be itching, eczemas or swelling of the skin. If this is the case, discontinue using the device and consult a physician.
- Broken glass or plastic can cause injuries. Have the device repaired in the service centre.
- Do not allow the device to fall or expose it to shocks.
- The device or parts of it can become damaged from falling, bending or deformation.
- Magnetic fields can cause the device to malfunction or the battery to discharge.
- The device features safeguards to limit the emitted laser beam: Do not make any modifications to the optical system.

- This device is classified as a class 3R laser product in accordance with the international standard IEC 60825. It operates with a visible laser beam, which is not dangerous in normal operation.
- The system is equipped with a class 3R laser. This laser class may be operated only by business owners. The owner is liable for personal injuries and material damage resulting from operation.
- Do not remove or cover symbols located on your device. Illegible information must be replaced immediately.

Read and comply with the operating manual prior to operating the device.

Danger of eye injuries!

Never look directly into the laser beam.

3 Description of product

3.1 Scope of delivery

- 1x: LAP-TEQ Display PLUS (display unit)
- 2x: LAP-TEQ Sensor PLUS (sensor unit)
- 1x: Mains USB charger
- 1x: USB charge cable
- 1x: Calibration cable
- 1x: Safety information
- 1x: Transport case

3.2 Your device at a glance

1. LAP-TEQ Display PLUS
2. Display
3. Power button
4. Calibration button
5. Charge state indicator
6. USB charge socket
7. Socket for XLR cable
8. LAP-TEQ Sensor PLUS
9. Opening in pressure compensation membrane
10. Laser beam exit
11. Base plate with mounting plate
12. Socket for XLR cable
13. Calibration cable

A complete LAP-TEQ PLUS angle measuring system consists of a display unit and at least one sensor unit.

The sensor unit is designed for mounting on the topmost element of a line array or of the bumper and measures the vertical angle between its longitudinal axis and the earth's surface. This provides information on the vertical orientation of the speaker element and/or of the entire array.

The laser beam of the sensor unit is used for visually checking the area that is supplied with sound. This allows you to determine whether the height of the speaker system is optimally adjusted in order to distribute sound to a spectator stand or a balcony.

If the laser beam hits a projection surface at a short distance, in addition to the actual laser cross you will also be able to see a square window and several points in extension to the cross axis. These artefacts are no longer visible with the normal working distances of the system and do not constitute a defect.

The products LAP-TEQ Display, LAP-TEQ Sensor, LAP-TEQ Display PLUS and LAP-TEQ Sensor PLUS are mutually compatible and can be operated together in any combination.

LAP-TEQ Sensor is limited to operation with the base plate oriented downward.

The calibration of a sensor unit from the display unit is possible only with the combination LAP-TEQ Display PLUS and LAP-TEQ Sensor PLUS.

For calibration of LAP-TEQ Sensor PLUS without LAP-TEQ Display PLUS please contact your sales partner.

Compatibility overview

	Sensor ●		Sensor PLUS +	
	Operation	Calibration	Operation	Calibration
Display	Yes	Internal	No	No [1]
Display PLUS	Yes	Internal	Yes	Yes

[1] Contact service partner

4 First operation

4.1 Charging the battery

The battery must be charged before using the device for the first time.

If no charger is connected, the display will show the charge state of the battery when the device is switched on.

Attention!	
	Danger of damage to device ► Never deep discharge the battery.

Notice

The lithium-polymer battery can be charged at any time without reducing the life of the battery. Interrupting the charging process will not damage the battery.

Notice

When the battery is fully charged the mains USB charger automatically switches to trickle charge. The battery can remain permanently in the charging station.

Notice

The battery will discharge if the device is not used for an extended period. In this case, it must be charged before use.

Please note that the battery will reach its full capacity only after being fully discharged and charged several times.

Attention!	
	Danger of damage to device! Forced or incorrect connection of the charging cable can damage the multi-functional socket or other parts of the device. ► Connect the correct end of the cable to the device.

► Plug the USB charging cable (1) into the USB socket (2) on the display unit.

► Plug the mains USB charger (3) into a type F socket or Euro socket.

When the device is switched on the charge process is indicated by a blue arrow on the display.

The charge state is indicated by the indicator light (4):

- Red LED = charging
- Green LED = fully charged

► Terminate the charging process when the battery is charged.

► Disconnect the mains USB charger from the power supply as long as you are not using it.

4.2 Connection

Attention!	
	Danger of damage to device! Moisture and liquids can damage the components or electronic circuits in the device. ► Do not switch the device on if it is damp. ► If the device is already switched on, switch it off. ► If the device cannot be switched off, allow it to dry in this state. ► Dry the device with a dry cloth and take it to the service centre.

Attention!	
	Danger of damage to device ► Never insert pointed objects into the opening of the pressure compensation membrane on the sensor.

Attention!	
	Danger of damage to device ► All components are maintenance free. Never open the device; otherwise, the warranty will be voided.

► Connect the display unit (1) and a sensor unit (3) using a standard 3-pin XLR cable (2).

There is no limit to the number of sensor units that can be connected successively to a display unit. For example, three sensor units can be used to check the correct orientation of a left and right PA system, as well as a centre cluster. Alternatively, one sensor unit can be attached permanently to each bumper.

To function correctly, the display unit must be connected to a sensor unit using a standard XLR connection cable. The sensor units are supplied with power by means of the XLR cable. There are no rechargeable batteries or other batteries in the sensor unit.

If the cable between the display and the sensor unit is longer than 75 m, this will reduce the brightness of the laser. However, the measuring function will not be affected.

For a distance greater than 75 m, you must use an XLR cable with a larger cross section than 0.22 mm². This will reduce the voltage drop along the cable route.

Notice

The calibration cable included with the device can also be used for a function check. Use of the calibration cable alone does **not** start the calibration process.

► For mounting the sensor units, use the flange holes (1) on the bottom of the housing.

For secure mounting on a bumper without a special LAP-TEQ holder, you can use the optional TEQSAS LAP-TEQ magnetic holder. The sensor must be bolted firmly to the flying frame or secured by suitable means against falling.

4.3 First operation

The sensor units are calibrated at the factory so that the base plate has to be oriented downward. To use the sensor unit in a different position, it must be recalibrated. Four positions are possible (90° grid on the longitudinal axis), see page 25.

For the first-time use the base plate must be positioned downward.

5 Operation

5.1 Power on/off

Check the condition of the device:

► Check for visible defects.

► Check to make sure that all parts of the device are firmly mounted.

⚠ Warning!	
	**Danger of eye injuries from laser beams!** If the laser beam hits the eyes via optical devices, this can result in irreparable damage. ► Never look into the laser or direct the laser beam onto reflecting surfaces!

► Make sure that no one is within the effective range of the laser.

► Power on: Press the “Power” button for about 3 seconds.

If the system has started up correctly, the green laser lights up and the current angle measurement is displayed.

The angle measurement is refreshed every 2 seconds. This integrated feature is necessary to prevent the last digit in the display from changing constantly, which could result for example from wind movement.

Notice

Pressing the “CAL” button on the display unit during operation does **not** switch the sensor unit to calibration mode. Instead, a short guide to calibration is displayed. The display automatically switches back to the angle measurement after a few seconds.

► Power off: Press the “Power” button again.

5.2 Display texts

If no cable or sensor unit or a defective cable is connected to the display unit, the warning “no sensor” appears on the display when the display unit is switched on: Establish a correct connection between the display unit and the sensor unit.

If the word “over” appears on the display, the permissible measurement range of +/- 50° was exceeded. This measurement range is sufficient for practical application.

If three dashes appear on the display, the sensor unit is being used in a position for which it was not calibrated.

After switching off the power the last measured reading is written to the internal memory of the display unit. When it is switched on again this reading appears in the bottom line of the display. This facilitates the comparison of identical horizontal alignment of the left and right PA system.

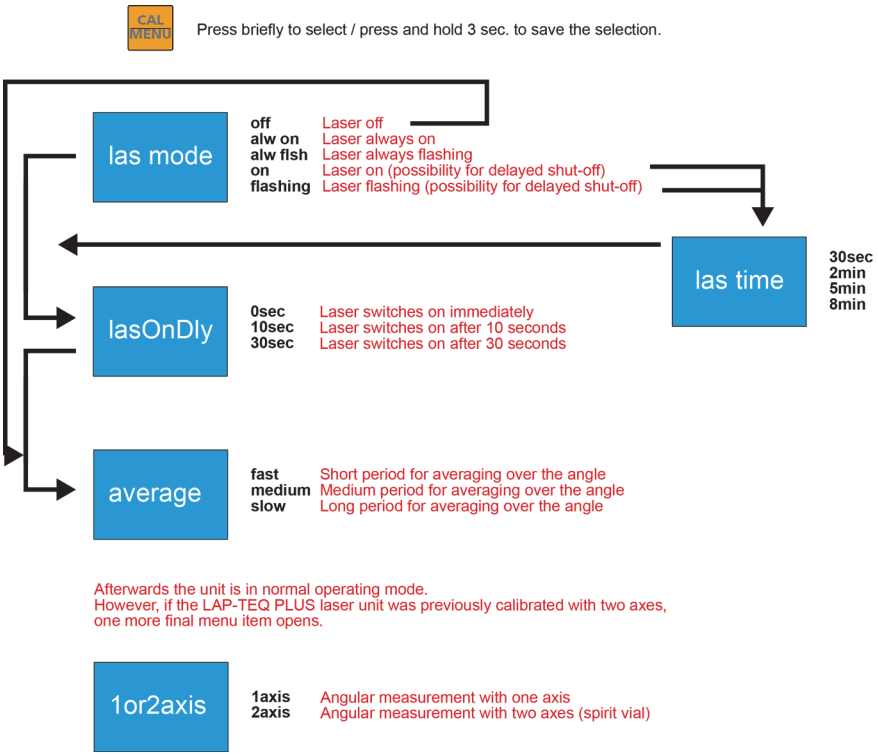
5.3 Sensor set-up

Invoke sensor set-up:

- ► Connect the sensor unit to the display module using the calibration cable.
- ► Power on: Press the “Power” button for about 3 seconds.
- ► Wait until a sensor reading appears on the display.
- ► Press and hold the “CAL” button on the display module until “las mode” appears on the display.

The sensor set-up is now invoked.

The following illustration shows all menu items and settings.



6 Cleaning and care

⚠ Danger!	
	**Risk of fatal injury from electric shock!** ► Before working on the device, unplug the mains plug from the socket.

Attention!	
	Danger of damage to device! ► Do not immerse the device in water for cleaning, since water could penetrate and damage the electrical components.

Attention!	
	Potential damage to product! The surface can be damaged. ► Never use scratching or abrasive objects or aggressive cleaners to clean the device.

- ► To clean the housing, use a soft, lint-free cleaning cloth moistened with mild soap suds.
- ► Avoid scouring movements on the display and the glass pane that closes the laser beam exit opening.
- ► Never use chemicals, cleaning agents or solvents. This can cause discolouration and corrosion on the outside of the device or can result in electric shock or fire.

7 Malfunctions and troubleshooting

⚠ Caution!	
	**Danger of injury!** Unauthorised repairs can have the result that your device no longer functions safely. That endangers yourself and your environment.

Malfunctions are often caused by minor errors. Usually you can remedy them yourself. Please refer to the following table before contacting your dealer. It will save you a great deal of trouble and possibly also expense.

If the device needs to be serviced, take it to your sales partner. The rechargeable battery built into this product cannot be replaced by the user. For information on replacing the battery, contact our service centre.

Error/malfunction	Cause	Remedy
Device does not function	Device defective?	Contact service department.
	Battery discharged?	Charge battery.
	Battery defective?	Contact service department.
Laser not visible	Poor ambient - conditions?	Refer to information on ambient conditions in this manual.
	Cable too long?	Use an XLR cable with a larger cross section.
	Measuring distance too large?	If possible, reduce the measuring distance.
“over” appears on display		Permissible measuring range of +/- 50° was exceeded.
Three dashes appear on the display		Recalibrate the device.

If you cannot remedy the error yourself, contact our service department. Please note that unauthorised repairs will also void the warranty and can result in additional costs.

7.1 Service centre

TEQSAS GmbH
Otto-Hahn-Straße 20a
50354 Hürth
Germany
Phone: +49 (0)2233 611-500
E-mail: service@teqsas.de

7.2 Observe ambient conditions

The visibility of the laser beam depends on the ambient brightness.

In general:

- Subdued light = good visibility
- Direct sunlight = poor visibility
- Rain, dust or vapour = poor visibility

Other interfering influences:

- Measurements through glass or plastic panes
- Dirty laser beam exit opening
- High temperature deviations: Before using in a very hot or cold environment, allow the device to adjust to the ambient temperature while in the transport case.

8 Calibration

Notice

The sensor unit is calibrated at the factory for operation with the base plate oriented downward.

To operate the sensor with a different orientation of the base plate (upward, or to the left or right), it must be calibrated in the desired position.

Once all positions have been completely calibrated the sensor can be used in all positions without further calibration.

Recalibration may be necessary if the sensor unit is subjected to extreme impacts (e.g. from being dropped). Calibration is necessary if the sensor unit is not to be operated with the base plate downward – in other words, with the base plate upward, or to the right or left. With the exception of the base plate, the calibration process is identical in all positions and is therefore described in this manual only for the position with the base plate oriented downward.

In addition to the sensor unit to be calibrated, the following are needed:

- Display module
- Calibration cable (see illustration on page 12)
  Normal XLR cables are not suitable.
- Spirit level
- Set square

Step 1

► Connect the sensor unit to the display module using the calibration cable.

Step 2

► Check whether the reference surface on which the calibration is to be carried out is level.

► Position the sensor unit with the base plate on the reference surface. The laser beam exit points to the left.

Step 3

► Press and hold the “CAL” button on the display unit.

► Press the “Power” button on the display unit.

► Release both buttons as soon as “Welcome” appears at the bottom edge of the display.

The system is now in calibration mode, which is indicated by “start calibrte?” in the upper area of the display.

Notice

Pressing the “CAL” button on the display unit during operation does **not** switch the sensor unit to calibration mode. Instead, a short guide to calibration is displayed. The display automatically switches back to the angle measurement after a few seconds.

► Press the “CAL” button again to start the actual calibration.

The question “calibrte 0.0° A?” appears on the display.

► Press the “CAL” button again to start calibration in direction “A”.

If “Sens pos incorrect” appears on the display, please check the orientation of the base plate.

If the procedure is correct, “don’t move” appears on the display, followed by a numerical value for “A” and the question “calibrte 0.0° B?”

Step 4

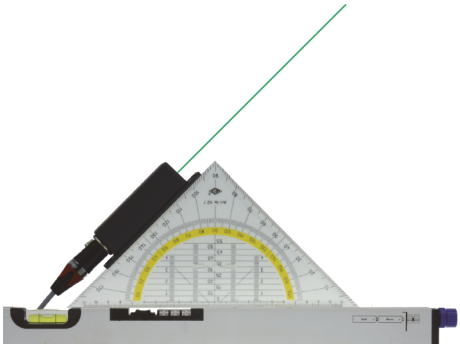
► Turn the sensor unit so that the laser beam exit points to the right.

► Press the “CAL” button again to start calibration in direction “B”.

Again, “don’t move” appears on the display, followed by a numerical value for “B” and the question “calibrte +45.0°?”

Step 5

► Use the set square to align the sensor unit so that the laser shines upward at a 45° angle.

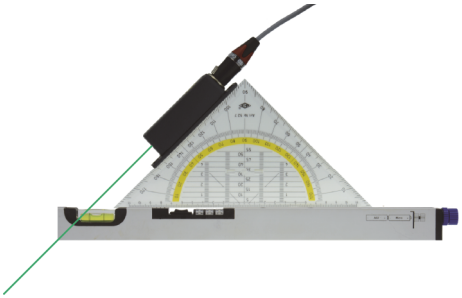


► Press the “CAL” button again to start calibration in “+45.0°”.

“don’t move” appears on the display, followed by a numerical value for “+45.0°” and the question “calibrte -45.0°?”

Step 6

► Use the set square to align the sensor unit so that the laser shines downward at a 45° angle.



► Press the “CAL” button to start calibration in “-45.0°”.

“don’t move” appears on the display, followed by a numerical value for “-45.0°”.

Calibration for downward orientation of the base plate is now complete. “Calb Data stored” appears on the display.

Step 7

If the sensor unit is used only with the base plate downward, nothing more needs to be done.

If operation with a different orientation is desired, the following tasks must be carried out starting with step 8!

To exit calibration mode, power off the display unit by pressing the “Power” button.

When it is switched on again – without pressing the “CAL” button – the device is again in normal operating mode.

Step 8

If you wish to operate the sensor unit with the base plate in a different position, the calibration process must be continued.

The sequence of the four possible positions is defined as follows (when viewing the XLR plug from the sensor unit):

Orientation		Display text
I.	Base plate down (factory calibration)	Mpl Down [1]
II.	Base plate up	Mpl Up
III.	Base plate left	Mpl Left
IV.	Base plate right	Mpl Right

Notice

For better clarity about which orientation (I.-IV.) is currently being calibrated, the display text in the table is displayed briefly.

Notice

Note on step 3: Since the system is already in calibration mode, it is not necessary to press the “Power” button. Calibration starts right away with the calibration of position “A” when the “CAL” button is pressed.

If steps 2 to 6 are carried out correctly with the changed orientation of the base plate without the text “Sens pos incorrect” appearing on the display, calibration of the orientation is completed with the display text “Calb Data stored”.

Now the sensor unit can be operated with the base plate either down or up. If these positions are sufficient, you can exit calibration mode by pressing the “Power” button to power off the unit.

If the side positions are also desired, steps 2 to 6 must be repeated with the base plate first to the left (when viewing the XLR plug on the sensor unit). For orientation with the base plate to the right (when viewing the XLR plug on the sensor unit), calibration steps 2 to 6 must be repeated again.

Now the sensor unit can be used in all four positions.

[1] Mpl: Mounting plate

8.1 Calibration of 2 axes

- ► Press and hold the “CAL” button on the display unit.
- ► Press the “Power” button on the display unit.
- ► Release both buttons as soon as “Welcome” appears at the bottom edge of the display.

The system is now in calibration mode, which is indicated by “start calibrte?” in the upper area of the display.

- ► Press and hold the “CAL” button on the display module for 20 seconds to switch to “2-axis mode”.

The question “calibrte 0.0° A?” appears on the display.

- ► For the remainder of the calibration process, follow the description in step 3, number 5 up to and including step 6.

In addition, calibration of the X axis +45°/-45° is carried out.

After calibration is completed, the values of the X and Y axis are shown on the display. After switching the unit off and then back on, you will see the “spirit vial”.

9 Storage

- ► Clean and dry all parts and store them in a clean and dry place.
- ► If you are not going to use or transport the device for an extended period, store it in the original package.

Attention!	
	Danger of damage to device! High temperatures can cause malfunctioning of the display, damage to the device or explosion of the battery. ► Do not store the device in very hot locations such as the inside of a car in summer or at locations with exposure to direct sunlight.

10 Disposal

The packaging consists of environmentally friendly materials that can be disposed of at your local recycling centre.

Devices that are marked with the symbol opposite are not to be disposed of with the household trash. You under obligation to dispose of such electrical and electronic devices separately.

Contact your local or municipal authority to find out more about where to dispose of used appliances.

Separate disposal old appliances allows recycling or reuse of the materials. This prevents pollution of the environment from undesirable substances.

10.1 Disposal of batteries/rechargeable batteries

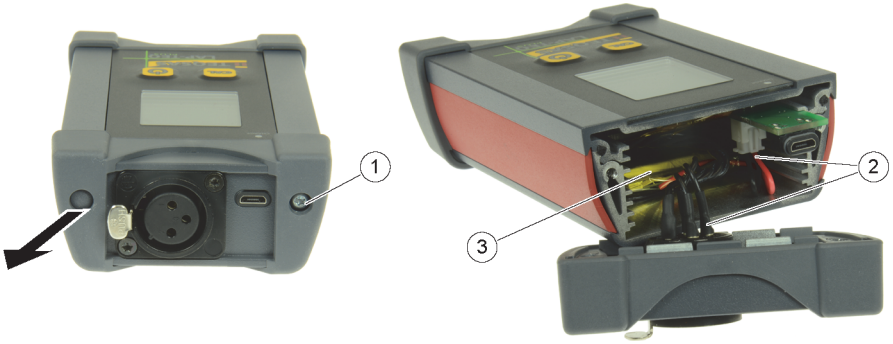
Rechargeable batteries and other batteries that are no longer needed do not belong in the household trash and must be disposed of in accordance with regulations.

- ► Take batteries that are no longer serviceable to the battery collection point of the dealer or of the municipality.
- ► Do not burn batteries. Danger of explosion!
- ► Do not burn rechargeable batteries. Danger of explosion!

10.2 Removing the battery

Notice

The battery must be removed before you dispose of the device. If the battery is defective, it can be replaced by a service shop. In this case please contact your sales partner.



- ► Remove the caps on the display unit with a small screwdriver.
- ► Unscrew screws (1).
- ► Disconnect cable (2).
- ► Remove battery (3) and dispose of properly.

11 Technical data

LAP-TEQ set	
Angle measurement resolution	0.1°
Permissible ambient temperature for operation	0 – 40 °C
Permissible ambient temperature for storage	-20 – 50 °C
Total weight of set	1.485 kg
Transport case	293 × 228 × 80 mm
LAP-TEQ Display PLUS	
Protection type	IP53
Display	1.8" TFT display
Dimensions	138.5 × 78 × 38.5 mm
Weight	434 g
LAP-TEQ Sensor PLUS	
Protection type	IP54
Optic	5° cross optic (starting Q3/2018)
	7° cross optic (until Q2/2018)
Laser class or laser diode	3R
Laser class of the laser system	2M
Laser colour	520 nm (green)
Dimensions	121.5 × 38.5 × 32.7 mm
Weight	170 g
FDA Product Code: 95R- - ER	
FDA Product Report: 2010264-000	

Mains charger	
Rated voltage	100-240 V~, 50-60 Hz
Charging voltage	5 V⎓
Charging current	max. 1 A
Charge connection	Micro USB
Dimensions	70 × 36 × 14 mm
Protection class	II
Rechargeable battery	
Battery type	Li-polymer
Rated voltage	3.7 V⎓
Capacity	2000 mAh
Charging time	4-5 h
Accessories	
Calibration cable	XLR 3-pin, 500 mm
USB charge cable	Micro USB (APCBU10BBECSTD)

The manufacturer reserves the right to make technical modifications to the product or product group without prior notice.

Order numbers for single components	
LAP-TEQ PLUS sensor unit	T87001004
LAP-TEQ PLUS display unit	T87001005
LAP-TEQ PLUS case with inlay	T87001006
LAP-TEQ PLUS calibration cable	T87001013
LAP-TEQ PLUS angle notes	T87001014
LAP-TEQ PLUS note pen	T87001015

12 Declaration of Conformity

CE

EG Declaration of Conformity

According to the EC Low Voltage Directive 2014/35/EU in accordance with Annex III B; of 26 February 2014

We hereby declare, that the design and construction of the product, described below, as well as the design put into circulation, by us comply with the basic safety and health requirements of the EG Low Voltage Directives. This declaration loses its validity, in the event of an amendment to the product not agreed with us. The manufacturer is solely responsible, for issuing this declaration of conformity.

- **Lap-TEQ PLUS Display**
- **Lap-TEQ PLUS sensor**

As well as their identical or related derivatives.

Compliance with other directives/regulations/standards also applicable to the product is declared if the product is used in accordance with OStRV 2010 and the corresponding TROS version 2015.

- EMC Directive 20111/65 EU
- RoHS Directive 2011/65 EU
- European Standard EN60825-1

The country-specific laser protection conditions must be considered under all circumstances.

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