

## Thermo Recorder

log-EZ

Model No. TR32B

## Safety Instructions and Specifications

Thank you for purchasing our product.

Please read carefully the following safety instructions and specifications to prevent damage to personnel and property, and to ensure safe and proper use of this product.

## Explanation of Symbols

	<b>DANGER</b>	These entries are actions that, if taken, may cause serious personal physical damage or death.
	<b>CAUTION</b>	These entries are actions that if taken may lead to physical injury or damage to persons or things.
	Denotes an important warning or caution.	
	Denotes a prohibit-den action.	
	Denotes an action that should be carried out.	

**DANGER | To Prevent Serious Accidents**

- Do not disassemble, repair or modify the unit.
- Do not use the unit in any environment that is exposed to chemicals and harmful gases. Doing so may cause corrosion and/or other danger to the product. Also, coming in contact with hazardous substances may cause bodily harm to the user or people nearby.
- This product is not water resistant. Only use in an environment where there is no condensation or possibility of becoming wet. If liquid enters the product, immediately remove the battery and stop using it.
- Do not insert or replace batteries with wet hands.
- Please be careful not to touch the product during or after use in overly hot or cold environments. It may cause burns or frostbite.
- This product has been designed for private and/or industrial use only. It should not be used in situations where strict safety precautions are necessary such as with medical equipment, or in systems directly or indirectly connected with human life.
- Do not drop or expose the unit to a strong impact.
- To prevent damage to the unit from static electricity, remove static electricity from your body by touching metal around you (such as a door knob and window frame) before touching the unit.
- Store the unit and battery out of the reach of children.
- If the unit produces heat, emits smoke or a strange smell, or makes unusual noise, immediately remove the battery and stop using it.
- Contact with oil may cause cracks to appear in the casing of the unit. Do not use in areas where oils are present.

**DANGER | Places NOT Suitable for Installation and Storage**

- Areas exposed to excessive vibration
- Areas exposed to excessive smoke, dust or dirt.
- Areas exposed to direct sunlight
- Areas exposed to water leakage
- Areas subject to condensation or wet areas
- Areas subject to direct flames or heaters, as well as areas in which hot air accumulates and creates extremely high temperatures
- Areas exposed to static electricity
- Areas exposed to strong magnetic fields

**CAUTION | Precautions for Battery**

- There is a risk of fire or explosion if battery is replaced by an incorrect type. Use and replace only with correct size and type (AA alkaline) of battery.
- Do not disassemble, modify, mechanically crush or cut the battery, as it may cause battery leakage, overheating, explosion or fire.
- Do not dispose of a battery into fire or a hot oven as this can result in an explosion.
- Do not leave a battery in an extremely high temperature surrounding environment or subjected to extremely low air pressure that can result in an explosion or the leakage of flammable liquid or gas.
- Do not install the battery in the wrong direction. Doing so may result in product malfunction, battery leakage, overheating or explosion.
- If battery fluid gets on your eyes or skin, wash thoroughly with clean water. See a doctor immediately if it gets in your eyes.
- The supplied battery is non-rechargeable and should not be recharged.
- Use in high or low temperature environments will result in a shortening of the battery life.
- If the unit is not to be used for a long period of time, remove batteries. Leaving batteries inside the unit may cause battery leakage and malfunction.

**CAUTION | Others**

- Use the product in the specified operating environment, and do not use in any other purposes than those intended.
- If the product gets dirty, wipe it with a clean cloth.
- Battery terminals may provide insufficient contact due to age or vibration. This may lead to data loss.
- Please be careful not to let a third party know of your registration code. The registration code cannot be reissued or changed.

## Compliance Information

## &lt;For FCC Model&gt;

## FCC andISED Statement

This device complies with part 15 of FCC Rules and 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 harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Responsible Party :

TandD US, LLC  
Santa Fe, New Mexico  
<https://tandd.com/>

*Le présent appareil est conforme à la partie 15 des règles de la FCC et aux normes des CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

## FCC Class B Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## FCC Caution:

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

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

## ISED Class B Statement

This Class B digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## FCC/ISED Radiation Exposure Statement

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules as this equipment has very low levels of RF energy.

*Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles des radioélectriques (RF) de la FCC lignes directrices d'exposition et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'ISDE puisque cet appareil a un niveau très bas d'énergie RF.*

## &lt;For CE Model&gt;

## CE Statement

Hereby, T&D Corporation declares that the radio equipment type TR32B Series is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: [tandd.com/manual/](http://tandd.com/manual/)

## &lt;Important Notice&gt;

Wireless products cannot be used in countries other than where those products have been approved for use, according to that country's wireless regulations. T&D Corporation shall in no manner whatsoever take responsibility for the usage of these products, nor be liable in any manner for legal consequences stemming from the usage of these wireless products in unapproved areas.

## 電波法に関するご注意

本製品は、電波法に基づく特定小電力無線機器として、技術基準適合証明（利用に関してはお客様の免許申請等が不要）を受けています。必ず次の点を守ってお使いください。

- 分解・改造をしないでください。分解・改造は法律で禁止されています。
- 技術基準適合レベルははがさないでください。ラベルのないもの使用は禁止されています。
- Bluetooth 機能は日本の技術基準適合証明、FCC、ISED、CE の認証を受けています。それら以外の認証が必要な国、地域でのご利用は法律により認められることがあります。

## Bluetooth® low energy の電波に関して

本製品における Bluetooth low energy の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）並びにアマチュア無線局（免許を要する無線局）が運用されています。

- (1) 本製品を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局並びにアマチュア無線局が運用されていないことを確認して下さい。
- (2) 万一、本製品から移動体識別用の構内無線局に対して有害な電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の放射を停止した上、下記連絡先にご連絡頂き、混信回避のための処置等（例えば、パーティションの設置など）について相談して下さい。
- (3) その他、本製品から移動体識別用の特定小電力無線局あるいはアマチュア無線局に対して有害な電波干渉の事例が発生した場合などお困りのことが発生したときは、弊社までお問い合わせ下さい。  
オンラインサポート: [tandd.co.jp/support/](http://tandd.co.jp/support/)

## 電波の種類と干渉距離

2.4	使用周波数帯域: 2.4GHz 帯
FH	変調方式: FH-SS 方式
3	想定干渉距離: 30m 以下
全帯域を使用し、かつ移動体識別装置の帯域を回避不可	

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## Product Specifications

	TR32B	
Measurement Channels	Temperature 1ch	Humidity 1ch
Sensor(Internal)	Thermistor	Polymer Resistance
Measurement Units	° C, ° F	%RH
Measurement Range	0 to 50 ° C	10 to 90 %RH
Accuracy	± 0.5 ° C	± 5 %RH at 25°C , 50 %RH
Measurement Resolution	0.1 ° C	1 %RH
Responsiveness	Response Time (90%): Approx. 21 min.	
Logging Capacity	8,000 data sets (One data set consists of readings for temperature and humidity.)	
Recording Interval	Select from 15 choices: 1, 2, 5, 10, 15, 20, 30 sec. or 1, 2, 5, 10, 15, 20, 30, 60 min.	
Recording Mode	Endless: Overwrite oldest data when capacity is full	
LCD Display Items	Measurements (alternating display), Battery Life Warning, etc.	
Communication Interfaces	Bluetooth 4.2 (Bluetooth Low Energy)	
Communication Time	Data Download Time (full logger): Approx. 15 seconds	
Power	AA Alkaline Battery LR6 x 1	
Battery Life (*1)	Approx. 1 year (*2)	
Dimensions	H 36 mm x W 85 mm x D 36 mm	
Weight	Approx. 40 g	
Operating Environment	Temperature: 0 to 50° C Humidity : 90 %RH or less (no condensation)	
Accessories	AA Alkaline Battery LR6, Registration Code Label, Stand, Screw x 2, User's Manual Set (Warranty Included)	
Software (*3)	Mobile Application (iOS, Android) T&D Thermo PC Software (Windows) T&D Graph	

\*1: Battery life varies depending upon multiple factors including ambient temperature, recording interval, frequency of communication, and battery performance. All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life.

\*2: Estimated battery life when recording data at an interval of more than 10 seconds and collecting data once a day.

\*3: Free software download and information on OS compatibility is available on the Software page of our website at [tannd.com/software/](http://tannd.com/software/).

The specifications listed above are subject to change without notice.

## Disclaimer

**In order to properly use this product, please carefully read all attached documents before using.**

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- All registered trademarks, company names, product names and logos mentioned herein or for products being used are the property of T&D Corporation or of their respective owners.
- Specifications, design and other contents outlined in this and attached documents are subject to change without notice.
- Please follow the safety precautions outlined in this document carefully. We cannot guarantee nor are we responsible for safety if this product is used in any manner other than was intended.
- We are not responsible for any damage, malfunction or trouble, whether direct or indirect, caused by the use of our product.
- On-screen messages in this and attached documents may vary slightly from the actual messages.
- Please note that this and attached documents have been written based on the presupposition that details about contracts with an Internet provider, specific network environments and the set-up of any other necessary equipment to enable network connection has already been taken care of by the User and that connection has been confirmed as workable. T&D Corporation shall not be responsible for any damages which a contractor, a user or a third party may suffer, whether direct or indirect, due to the inability to communicate or use communication devices.
- Please notify the shop where you purchased this product or T&D Corporation of any mistakes, errors or unclear explanations in this and attached documents. T&D Corporation accepts no responsibility for any damage or loss of income caused by the use of our product.
- Accompanying documents cannot be reissued, so please keep them in a safe place.
- Please read the warranty card and provisions for free repair carefully.