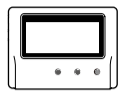


Package Contents

TR7A2 Series Common Items



Data Logger

AA Alkaline Battery
(LR6) x 2Instructions and
Warranty

Registration Code Label

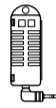


Sensors for Use with Each Model

TR71A2

Temperature Sensor
(TR-0106 x 2)

TR72A2

Temperature-Humidity Sensor
(THA-3001)

TR72A2-S

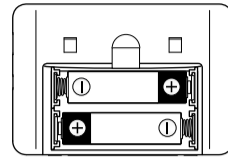
High Precision Temperature-
Humidity Sensor
(SHA-3151)

Product Specifications are available at:

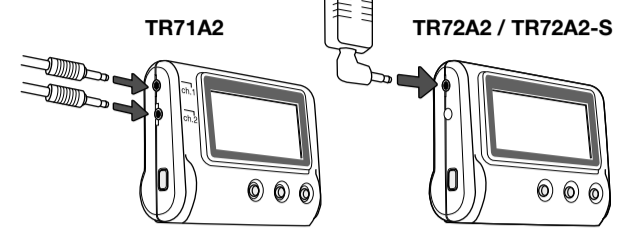
https://tandd.com/product/pdf/spec_tr7-eng.pdf

Device Preparation

Battery Installation

Make sure to use new batteries
(including for replacement) and
insert in the correct direction.

Sensor Connection



About TR71A2 Internal Sensor

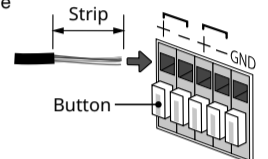
Channel 1 has an internal temperature sensor. When an external sensor is not connected, the internal sensor will be used.

About TR75A2 Input Terminal

When connecting thermocouple wires to the input terminal, make sure that the positive and negative connections are in the proper order. If the polarity is incorrect, changes in temperature will be reversed (when the real temperature increases, the measured temperature will decrease).

Wiring Connections

Connect and disconnect the thermocouple wire from the hole while pressing the input terminal button with a screwdriver or other such tool. Do not try to pull out the wire without pressing the button.



Compatible Wires

Single wire: \varnothing 0.32 to \varnothing 0.65 mm (AWG 28-22)
Twisted wire: 0.08 to 0.32 mm² (AWG 28-22)
Diameter: 0.12 mm or more
Strip length: 9 to 10 mm

Using GND

If measurements are unstable while using the unit with a USB cable connected, connect the GND terminal to ground.

Once you have prepared the device, install the application to your mobile device or computer, and make necessary settings.

Mobile App "T&D Thermo"

<https://tandd.com/software/td-thermo.html>

PC Software "TR7 for Windows"

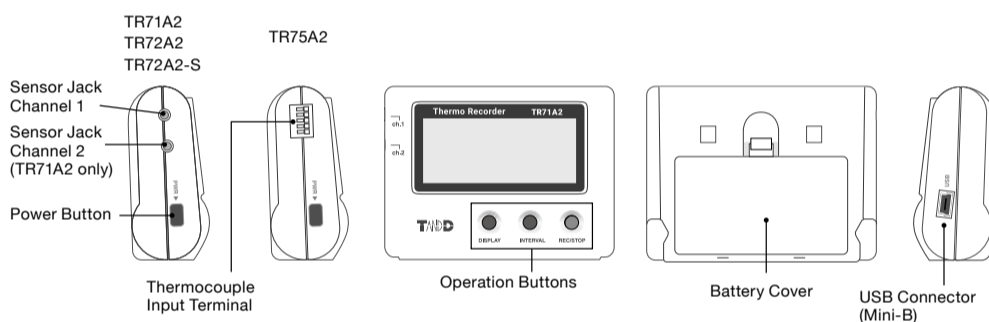
<https://tandd.com/software/tr7win.html>

For the settings and procedures, refer to the User's Manual from the following URL.

TR7A2 User's Manual PDF

<https://tandd.com/manual/pdf/man-users-tr7a2-eng.pdf>

Part Names



The User's Manual also explains operations using the operation buttons.

Safety Precautions and Instructions

The following items should be strictly obeyed for the safe usage of this product, and for protecting yourself and other people from bodily harm and/or damage to property.

Explanation of Symbols

Warning Symbols

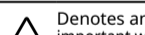
**DANGER**

These entries are actions that absolutely under no circumstance should be taken. The taking of such an action may cause serious personal physical damage or death.

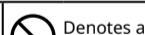
**CAUTION**

These entries are actions that if taken may lead to physical injury or damage to persons or things.

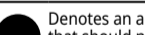
Picture Symbols



Denotes an important warning or caution.



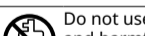
Denotes a forbidden action.



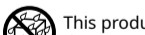
Denotes an action that should not be carried out.

**DANGER****To Prevent Serious Accidents**

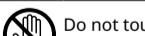
Do not disassemble, repair or modify the unit and/or accessories.



Do not use the unit in any environment that is exposed to chemicals and harmful gases. Doing so may cause corrosion and/or other damage to the unit. Also, coming in contact with hazardous substances may cause bodily harm to the user or people nearby.



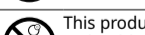
This product is not water resistant. If water or a foreign object enters the case, immediately remove batteries and stop using it.



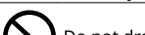
Do not touch the unit or AC adaptor during thunder and lightning, as this may cause electrocution.



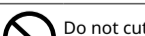
Do not handle the unit, remove batteries or cables with wet hands.



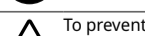
This product has been designed for private and/or industrial use only. It should not be used in situations where strict safety precautions are necessary such as with medical equipment, or in systems directly or indirectly connected with human life or well-being.



Do not drop or expose the unit to a strong impact.



Do not cut or process the cords for the communication cables. Also, do not twist, pull on or swing any of the cords.



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.



Place and store the unit and accessories out of the reach of children.



We are not responsible for any damage, malfunction or trouble, whether direct or indirect, caused by the use of our product.



Do not use any battery, sensor, or cable other than those specified by T&D Corporation.



Do not put anything on top of the cable or the unit. This may cause overheating.



Do not disconnect the USB cable during USB communication. Doing so may cause adverse effects to the unit and/or PC.



Make sure that sensor and cable plugs are all inserted fully, so as not to cause an improper connection. Also, when unplugging the cable from the unit, do not pull the cord, but hold the connector to disconnect.



If the unit produces heat, emits smoke or a strange smell, or makes unusual noise, immediately remove the batteries and stop using it. Also, unplug the unit from the PC.



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. Install new batteries when starting or re-starting to use a unit.



For TR75A2: Ch.1 and Ch.2 terminals are NOT electrically isolated from each other. Do not attach non-isolated thermocouple sensors to objects connected to a live voltage. This may cause a short circuit or an electrical shock.

**CAUTION Do not place or store in the following areas:**

- » Areas exposed to direct sunlight
- » 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
- » Areas exposed to water leakage
- » Areas subject to condensation or wet areas
- » Areas exposed to excessive vibration
- » Areas exposed to excessive smoke, dust or dirt.

**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.

**CAUTION Other Precautions**

- » Use the unit in the specified operating environment. Do not use it for any purpose other than for which it was designed.
- » Condensation may occur inside the case when a unit is moved from one environment to another where there is a great difference in temperature.

- » Do not use the unit in wet areas or places exposed to water such as bathroom.
- » When connecting the unit to your PC, make sure to follow all warnings and directions from your computer manufacturer.
- » We shall not guarantee the unit's operation if it has been connected to a PC using a USB hub or a USB extension cable.
- » Do not insert any foreign objects into any of the units' jacks.
- » If the unit gets dirty, wipe it with a clean cloth.
- » Make sure to remove dust and dirt from plugs of any cables.
- » Battery terminals may provide insufficient contact due to age or vibration. This may lead to data loss.
- » Please note that this document has 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 be careful not to let a third party know of your registration code. The registration code cannot be reissued or changed.

**CAUTION Notices about Sensors**

- » Do not connect any sensor to the unit other than those specified by T&D Corporation.
- » Make sure to use sensors within the measurement range indicated in the specifications for that sensor.
- » Do not connect the sensor to any data logger other than those specified by T&D Corporation.
- » Do not expose the sensor to a strong impact. This may adversely affect measurement accuracy and cause damage or malfunction.
- » When the sensor is not to be used for a long period of time, please store it at normal temperature and humidity.
- » The included sensor is not water resistant. If the sensor gets wet, immediately remove the sensor from the unit and wipe it with a clean cloth as soon as possible. Then allow the sensor to dry in normal room temperature before using it again.
- » Do not use the sensor on the human body.

Temperature-Humidity Sensor

- » If extremely severe temperature changes occur, it may result in large errors in humidity measurement. Once the sensor's temperature becomes stable, the measurements will return to normal.
- » The temperature-humidity sensors will with normal use experience losses in precision and sensitivity over time due to degradation. If the sensor is being used in an unsuitable environment (smoky or dusty places) it may be necessary to change the sensor sooner.
- » When using the sensor in an environment where the humidity is under 30 %RH, the measurements may sometimes fluctuate. This is not abnormal.
- » Do not expose to condensation, dampness, corrosive gases, or organic solvents.

Thermocouple Sensors

- » We do not handle the sale of Thermocouple sensors. Please prepare a commercially available sensor.

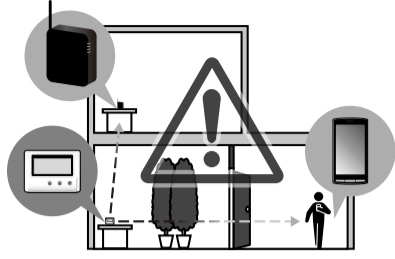
Regarding the Use of Wireless Devices

Precautions when Installing Wireless Communication Devices

Wireless signals are affected by device placement and interference caused by other environmental factors. The following factors can especially cause an unstable wireless connection, please be mindful of them when deploying devices.

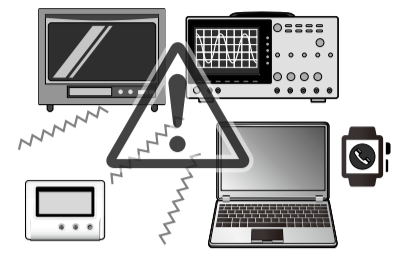
Physical Objects:

Placing wireless devices far from each other and/or near to obstacles (such as metal objects, concrete, plants, etc.) may lead to a poor wireless connection.



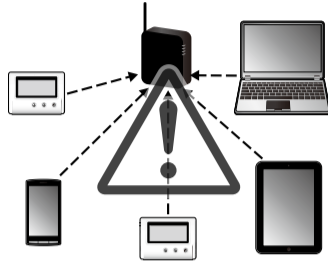
Electrical Interference:

Placed near cooking equipment such as microwave ovens or communication devices that generate electromagnetic waves.



Access Point Capacity:

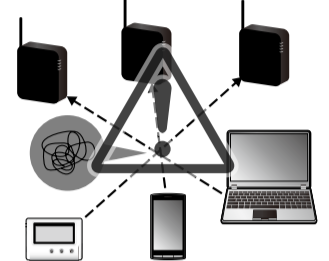
Having many devices connected to one access point simultaneously.



Regarding how many wireless devices can simultaneously connect to an access point and still maintain stable connections, please contact the manufacturer of the wireless access point.

Channel Congestion:

Using multiple wireless LAN access points with the same communication frequency channel.



Change the wireless LAN access point settings to assign a non-overlapping channel to each access point.

Note: If unstable wireless connection continues, not only will more data transmission errors occur, but battery life will also be shortened.

Compliance Information

<For FCC Model>

FCC Statement

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.

Responsible Party:

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

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.

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

ISED Statement

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.

This digital apparatus complies with CAN ICES-3(B)/NMB-3(B).

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux 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; 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

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

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. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

Location of FCC ID and IC Certification Number

The FCC ID and IC ID can be found inside the battery compartment of your device.

<For CE Model>

CE Statement

Hereby, T&D Corporation declares that this device is in compliance with RE Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

tandd.com/manual/pdf/doc-tr7a2.pdf

<Important Notice>

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.

Important Notices and Disclaimers

In order to properly use this product, please carefully read all documents that accompany the product before using.

- ▶ All rights of the attached documents belong to T&D Corporation. It is prohibited to use, duplicate and/or arrange a part or whole of the attached documents without the permission of T&D Corporation.
- ▶ Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.
- ▶ Google, Android, and Google Play are trademarks or registered trademarks of Google Inc.
- ▶ Apple and App Store are trademarks or registered trademarks of Apple, Inc. in the U.S. and other countries.
- ▶ The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by T&D Corporation is under license.
- ▶ 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.
- ▶ Product specifications and designs are subject to change without notice.
- ▶ Please follow the safety precautions outlined in the attached documents carefully. We cannot guarantee nor are we responsible for safety if this product is used in any manner other than was intended.
- ▶ On-screen messages may vary slightly from the actual messages.
- ▶ Please notify the shop where you purchased this product or T&D Corporation of any mistakes, errors or unclear explanations in the 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 and provisions for free repair carefully.

電波に関するご注意

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。
- ・ 技術基準適合ラベルははがさないでください。ラベルのないものの使用は禁止されています。
- ・ 本製品は、日本の技術基準適合証明、FCC、ISEDの認証を受けると共に、CEの規格に適合します。それ以外の認証が必要な国、地域でのご利用は法律により罰せられることがあります。

Bluetooth Low Energy・無線 LAN の電波に関して

本製品の使用周波数帯（2.4GHz）では、電子レンジ等の産業・科学・医療用機器のほか工場の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ください。
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発射を停止した上、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）についてご相談してください。
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何かお困りのことが起きたときは、弊社までお問い合わせください。
連絡先：ティアンドデイオンラインサポート <https://www.tandd.co.jp/support/>

電波の種類と干渉距離

2.4 FH 3 Bluetooth Low Energy

2.4 DS/OF 4 無線 LAN (IEEE 802.11b/g/n)

- 2.4 2.4GHz 帯を使用する無線設備を表します。
- FH 変調方式が「FH-SS方式」であることを表します。
- 3 想定される干渉距離が 30m 以下であることを表します。
- 全帯域を使用し、かつ移動体識別装置の帯域を回避不可であることを表します。

- 2.4 2.4GHz 帯を使用する無線設備を表します。
- DS/OF 変調方式が「DS-SS/OFDM方式」であることを表します。
- 4 想定される干渉距離が 40m 以下であることを表します。
- 全帯域を使用し、かつ移動体識別装置の帯域を回避可能であることを表します。

사용자 안내문

이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

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For product information or questions contact us at :

T&D Corporation

For product inquiries, please contact your local distributor. Visit T&D Website for the distributors list. If you can not find a distributor in your area, please contact our main office in Japan or one of our branch offices in Europe or America.

<https://tandd.com/purchasing/>