RTR-500A1/A2

External Power Adaptor

User's Manual

Thank you for purchasing this product.
Carefully read and fully understand these instructions before using this unit.

T&D CORPORATION

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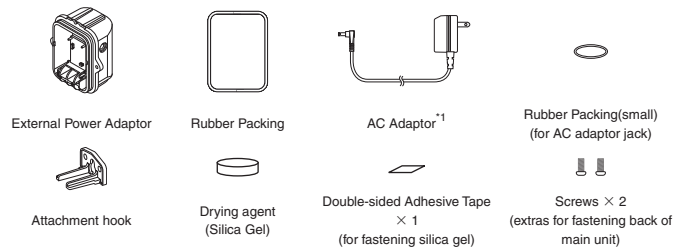Homepage: http://www.tandd.com/

About this Product

This product is an External Power Adaptor especially designed for use with our RTR-500x Series data loggers.

Caution: If this product is used in combination with any product other than those specified above, T&D Corporation shall in no manner, whatsoever, guarantee the operation of this product.

Package Contents

The package contains the following:

| External Power Adaptor | Rubber Packing | AC Adaptor*1 | Rubber Packing(small) (for AC adaptor jack) |

| Attachment hook | Drying agent (Silica Gel) | Double-sided Adhesive Tape × 1 (for fastening silica gel) | Screws × 2 (extras for fastening back of main unit) |

Specifications

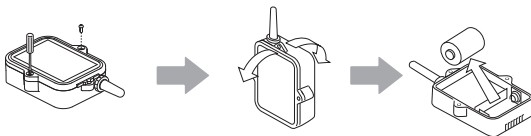|	
Voltage Input	: DC6V
Back-up Power*2	: Ni-MH Battery (In case of power loss) (Internal)
Back-up Time	: 4 days*3
Charging Method	: Trickle Charge
Operating Temperature	: 0-60ºC
Waterproof Capability	: None
Weight	: about 37g (without AC adaptor)

Note:

*1: An AC adaptor is not included in the RTR-500A2 packages. For details about purchasing, contact you local distributor.

*2: If the Back-up Power function is on, the RTR-500x Series LCD display will show **BAT** or ▭ .

*3: Battery Life varies depending on measuring environment, recording interval, transmission frequency, and ambient temperature. The battery life estimated here is calculated using a new battery under normal operating conditions and in no way should be understood as a guarantee of battery life.
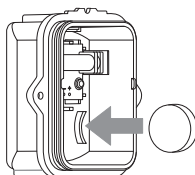
How to Attach

Caution:

If you do not wish to lose the recorded data, please finish this operation in less than 1 minute from the time that you remove the battery from the RTR-500x Series unit. (We suggest that you download recorded data before attaching the adaptor. For details about downloading data, see the User's Manual that comes with the software you are using or the Base Unit being used for our Thermo Recorder RTR-500x Series Data Loggers.)

1. Remove the back lid from the RTR-500x Series unit and take out the battery.

2. Attach the double-sided adhesive tape to the back of the drying agent and fix to the inner side of the RTR-500A1/A2.
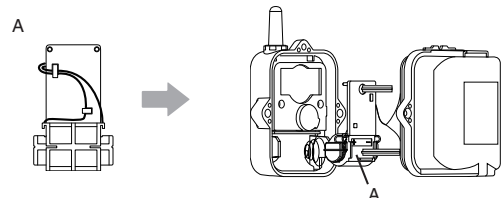

3. Check the RTR-500A1/A2 rubber packing for abrasions, cuts and dirt. If the packing is in good condition, insert into the grooves making sure that it is properly fit.

Caution:
- Abrasions or dirt may cause small openings to occur through which water or other foreign objects can enter and cause damage to the unit.
- The rubber packing is a special item and is not sold in stores. If it becomes damaged, please replace it by ordering [Maintenance Set] (TR-00P1).
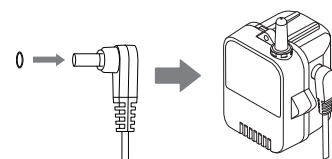
4. Making sure that the 2 electrical wires are in the grooves as in diagram A (below left), insert A (as in right diagram) into the battery space of the RTR-500x Series unit. Close the case and fasten the screws.
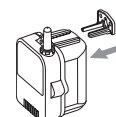

Caution: If the electrical wires are not properly in their grooves, the lid may not completely close. Please make sure that the wires are in their grooves before continuing.

If no recording settings have been made before carrying out this operation, recording will begin from the time section A is inserted into the battery space.

*If, after inserting section A, nothing appears in the unit's LCD display, please repeat the steps above and attach again. For details about the display, see the appropriate user's manual for the RTR-500x Series unit.

5. Attach the small rubber packing to the AC adaptor jack (as below) and connect it to the main unit.

6. If necessary, put on the attachment hook.

7. Insert the AC adaptor plug into the electrical outlet.

Notices about this User's Manual

- Please read this manual carefully before using the product.
- All rights of this User's Manual belong to T&D Corporation. It is prohibited to use, duplicate and/or arrange a part or whole of this User's Manual without the permission of T&D Corporation.
- Please follow the safety precautions carefully. We cannot guarantee nor are we responsible for safety if this product is used in any manner other than was intended.
- T&D Corporation accepts no responsibility for any malfunction of and/or trouble with this product or with your computer that is caused by the improper handling of this product and will deem such trouble or malfunction as falling outside the conditions for free repair of the attached warranty.
- T&D Corporation accepts no responsibility for any result or effects from using this User's Manual.
- Figures and illustrations in this manual may be slightly simplified and may differ from the actual product.
- On screen messages, figures or illustrations in this manual may vary slightly or be simplified from the actual messages and product.
- We sincerely hope that the contents of this manual are true and complete. If you find any information to have been omitted, or if the information within is confusing or mistaken please, contact your retailer or T&D Corporation.
- Microsoft®, Windows® and Windows NT® are registered trademarks of Microsoft Corporation USA and are binding in the USA and all other countries. Company names and product names are trademarks or registered trademarks of each company.
- This User's Manual cannot be reissued, so please keep it in a safe place.
- Please carefully read this User's Manual and Free Repair Warranty.

Safety Precautions and Instructions

Please carefully observe the following safety measures when using our product.
To prevent any loss or damage to our customers, other people and / or property, and to ensure the proper use of our products we ask that before using our product you carefully read, understand and follow the safety rules and precautions for our products as outlined below.

[Explanation of 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.

[Explanation of Picture Symbols]

△	This symbol denotes an important warning or caution. Inside or near the symbol will appear another symbol giving details. (EX: ⚠ stands for FIRE OR ELECTROCUTION)
○	This symbol denotes a forbidden action. Inside or near the symbol will appear another symbol giving details. (EX: ⊗ stands for DO NOT TAKE APART)
●	This symbol denotes an action that you must take. Inside or near the symbol will appear another symbol giving details.

⚠ DANGER

Do not take apart, repair or modify the main unit.
It may cause fire, electrocution or damage. Ask the shop where you purchased the product or T&D Corporation to carry out any repairs.

If any smoke or strange smells are emitted from the unit, immediately ceas e using it.
Continued use may cause fire, electrocution or damage.

Do not use any batteries other than those that are recommended. It may cause fire or damage.

If water or a foreign object enters the case, immediately cease using it.

Store all batteries, sensors and Thermo Recorder units out of the reach of children. It is dangerous to swallow batteries.

Please be careful when using the units in overly hot or cold environments; touching the units may cause burns or frostbite.

⚠ CAUTION

T&D is not responsible for any malfunction or trouble caused by the use of our product or any problem caused by the malfunction of our unit. Please be fully aware of this before using our product.

This product has been designed for private or industrial use only.
It is not for use in situations where strict safety precautions are necessary such as in connection with medical equipment whether directly or indirectly.

Do not drop or expose the unit to strong impact.

A sudden change in widely different temperature environments may cause condensation to occur. Please use the unit in areas with a temperature range of 0 to 50°C and a humidity range of 10 to 90%RH (with no condensation).

Do not place any foreign objects into the AC adaptor jack. If may cause damage.

Battery life depends on the measurement environment, communication frequency, recording interval and battery quality.

Pay attention to water leakage or foreign objects entering into the unit case as in the following cases.
- The case was closed with dust, hair, etc., on the rubber packing or in the groove for the packing.
- The rubber packing becomes damaged. (In this case, please purchase the optional maintenance set.)

Do not use or store the unit in places such as listed below:
It may cause electrocution, fire or damage to the unit or to your computer.
- Areas exposed to direct sunlight.
- Areas exposed to water or high-pressure water flow.
- Areas exposed to organic solvents and corrosive gas.
- Areas exposed to strong magnetic fields.
- Areas exposed to static electricity.
- Areas exposed to fire or overheating.
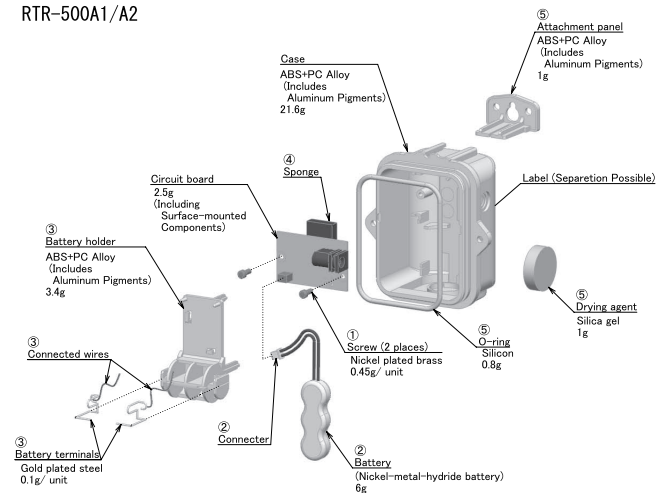- Areas exposed to excessive dust or smoke.

This product has a built-in Ni-MH battery (3/V40H - 073645). When disposing of this product, please remove the battery by following directions below.

How to Remove the Battery

WEEE Category9

RTR-500A1/A2

⑤ Attachment panel
ABS+PC Alloy
(Includes Aluminum Pigments)
1g

Case
ABS+PC Alloy
(Includes Aluminum Pigments)
21.6g

④ Sponge

Label (Separetion Possible)

Circuit board
2.5g
(Including Surface-mounted Components)

③ Battery holder
ABS+PC Alloy
(Includes Aluminum Pigments)
3.4g

③ Connected wires

⑤ Drying agent
Silica gel
1g

① Screw (2 places)
Nickel plated brass
0.45g/ unit

⑤ O-ring
Silicon
0.8g

② Connecter

③ Battery terminals
Gold plated steel
0.1g/ unit

② Battery
(Nickel-metal-hydride battery)
6g

① Remove the 2 screws and the circuit board.
② Pull off the connector from the circuit board to remove the battery.
③ Remove the 2 battery terminals from the battery holder, and cut off the connected wires.
④ Remove a sponge from the circuit board.
⑤ Remove the drying agent, O-ring, and attachment panel from the case.

Components containing Hazardous Substances

Parts	Hazardous Substances
Circuit board	Pb, Others(under study)

Total Weight
37g (Battery not included)

Weight thought to be Recyclable
28g

Material Name

ABS	Acrylonitrile Butadiene Styrene
PC	Polycarbonate