TANDD

Data Collector
RTR-500DC

Introductory Manual

Thank you for purchasing our product. This manual explains in brief how to get an RTR-500DC unit ready for use and how to install the software.

Details about how to use the software "RTR-500DC for Windows" and its functions can be found in the software "Operation Guide (Help)".

Notices

Carefully read this manual so that you can properly use this product.
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.

- All rights of this Introductory Manual belong to T&D Corporation. It is
  prohibited to use, duplicate and/or arrange a part or whole of this
  Introductory Manual without the permission of T&D Corporation.
- Microsoft ® and Windows ® 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.
- Specifications, design and other contents are subject to change without
  notice.
- On screen messages in this manual 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 this manual.
  T&D Corporation accepts no responsibility for any damage or loss of
  income caused by the use of 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.
- We are not responsible for any malfunction or trouble caused by the use of
  our product or by any problem caused by the use of measurement results
  of this Unit. Please be fully aware of this before using our product.
- Some of our products, which come under the category of strategic goods
  in foreign trade law, need the permission of the Japanese government to
  be exported outside of Japan.
- The Manual itself can be downloaded from our Website:
  http://www.tandd.com/

Safety Precautions and Instructions

The following items should be strictly obeyed for the safe usage of this Unit, and for protecting yourself and other people from bodily harm and/or damage to property.
Before using this product, please read the following carefully and fully understand the contents.

Explanation of Symbols

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

△	Denotes an important warning or caution.
⊘	Denotes a forbidden action.
●	Denotes an action that must be taken.

⚠ WARNING

❗	Be sure to follow the warnings and notices about use from your PC maker when installing and using this unit.
🚫	Do not take apart, repair or modify the main unit. Doing so may cause fire or electrocution.
🚫	If water or a foreign body enters in this unit, turn the power off and remove the batteries. Continued use may cause fire or electrocution.
🚫	Do not use this unit in wet or humid places, such as a bathroom.
❗	Store RTR-500DC main units, batteries and communication cables out of the reach of children. It is dangerous to touch or swallow batteries.
🚫	Connecting a communication cable that is connected to a PC or a Data Logger to the telephone cable may cause fire or damage.
🚫	If any smoke or strange smells are emitted from the unit, immediately turn the power OFF and remove the batteries. Continued use may cause fire or electrocution.
🚫	Do not drop the unit, or expose the unit to a strong impact. If that happens to the unit, immediately turn the power OFF and remove the batteries. Continued use may cause fire or electrocution.

⚠ CAUTION

🚫 This unit is not water-resistant. If the unit gets dirty, wipe it with a clean cloth and a mild detergent.

🚫 Do not put your fingers or foreign matter into the communication port.

❗ Battery life depends on the kind of the batteries, measurement environment, communication frequency, ambient temperature, and battery quality.

🚫 Do not use batteries other than specified. Doing so may cause fire or damage.

🚫 Do not use an AC adaptor other than specified. Doing so may lead to fire or damage.

⚠ Battery terminals may provide insufficient contact due to age or vibration. This may lead to data loss.

❗ If the unit will not be used for period of time, for safety reasons please remove the battery. If left in the unit, it may leak and lead to malfunctioning.

❗ Condensation may occur if the unit is moved from one environment to another where the difference in temperature is great. Use the unit in an environment where the ambient temperature is from 0 to 50 ˚C (32 to 144 ˚F) and the humidity is 90％ RH (no condensation) or less.

🚫 Do not expose the unit to harmful gases or chemicals. It may cause corrosion and/or other danger to the unit and to people handling the unit.

⚠ To prevent damage to the unit from static electricity, remove static electricity from your body by touching metal around you (door knob, window frame) before touching the unit.
Static electricity may cause not only damage to the unit, but may cause breaks in or a loss of data.

⚠ **CAUTION**

Do not use the unit in places such as listed below. It may cause electrocution, fire or have adverse effects on the unit or your PC.

- In places exposed to direct sun light.
  The inside temperature of the unit will rise and may cause fire, damage or deformation.
- In areas exposed to strong magnetic fields.
  It may cause damage.
- In places exposed to water leakage.
  It may cause damage or electrocution.
- In areas exposed to static electricity.
  It may cause damage.
- In areas exposed to vibration.
  It may cause an injury, damage, and/or insufficient contact.
- In places which are not flat.
  It may lead to the unit being dropped or falling and cause injury or damage.
- In places exposed to fire or heat.
  It may cause damage or a change in shape.
- In places exposed to excessive smoke, dirt and dust.
  It may cause damage.

⚠ Wireless Regulations

Radio, EMC and Safety Regulations

FC

This device complies with part 15 of the Federal Communications Commission (FCC) rules and with RSS-210 of the Industry Canada (IC). Operation is subject to the following 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

Changes or Modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

Note: 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 Special Short Range Wireless Communication.

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 RF Radiation Exposure Statement:
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated with a minimum distance of 30cm between the radiator and your body.

This device has been designed to operate with the supplied antenna only. Use of any other antenna is strictly prohibited. The supplied antenna has a maximum gain of 0dBi, and has an impedance of 50 ohms.

⚠ Important Notice

We cannot sell these products to distributors or consumers in countries other than where the wireless Units have been approved for use. If these wireless products are used outside of the designated areas of the Americas where the devices have been granted approval, 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.

Table of Contents

Introduction

Getting Ready

Before Using...

Important Notes about the Installation Procedure (for using this product with USB communication)

Thank you for choosing T&D Products

In order to use a USB connection to communicate between this product and a PC, it is necessary to install the application and the USB driver.

Before connecting this product to a PC with a USB cable, it is necessary to first install the application and the USB driver.

If you use the USB cable to connect the product to a PC before installation, the USB driver may not properly install.

If you have connected the product to a PC without first installing the driver, please make sure to press [Cancel] in the [Installation Wizard] window when it pops up the PC screen and then disconnect the USB cable from the product.

For more details about the proper installation procedure, see the Software Introductory manual that accompanies [RTR-500DC for Windows].

■ Windows Vista

[Cancel] Button

■ For other Windows Operating Systems

* The screen shot below is from Windows XP. For other Windows OS, there is also a [Cancel] button in the lower right of the screen. (Your screen may differ slightly if you are using a Windows OS other than XP.)

[Cancel] Button

1

About Data Collector RTR-500DC

■ Outline

Our revolutionary Wireless RTR-500 Series is a system wherein the various kinds of data measured and recorded by our Data Logger units （Remote Units) can be transmitted to the RTR-500DC Data Collector (Base Unit) via short range radio communication. The Data Collector can then be connected to your computer to enable easy downloading and total data management.

Compatible Data Loggers: Wireless Data Logger

RTR-501/502 Temperature data

RTR-503:Temperature and Humidity data

RTR-574: Illuminance, UV Intensity, Temperature and Humidity data

■ Basic Functions
- Wireless Data Communication Function

Our Wireless Data Logger RTR-500 Series utilizes the RTR-500DC to collect recorded data from the Data Logger Units via our exclusive short range wireless technology. The RTR-500DC also allows you to wirelessly control recording settings and start recording, as well as other functions of the Data Loggers. Communication is possible to a distance of up to 500 ft (1150) if unobstructed and direct.

Note

- If collecting data via wireless communication, it is necessary to first set up the RTR-500 Series Units as Remote Units in your computer.

- Register up to 224 Remote Units on 1 RTR-500DC

RTR-500DC is designed to manage the RTR-500 Series Units (Remote Units) in groups. 1 RTR-500DC Unit can be set up to manage up to 7 groups, with each group containing up to 224 Units.

- Monitoring Function

With RTR-500DC, you can wirelessly monitor current temperature readings of one group of Remote Units, with the readings being sequentially displayed on the unit.

Note

If monitoring is carried out on a regular basis the battery life of the Remote Units will be shortened.

- Data Storage Capacity: 256,000 Readings

The RTR-500DC has a large enough capacity to collect data from 16 Remote Units at full storage capacity.

- Graph Display

The RTR-500DC gives you a high quality graph display of collected data whether it be temperature, humidity, illuminance or UV. By using the handy operation dial or the buttons on the front of the main unit you can easily scroll left and right across the graph display; giving you the data you want in an easy to check format.

- Radio Wave Monitor

Check the condition of radio wave transmissions.

- Handy Operation Dial

By simply moving the dial up and down you can scan the menu and make a selection by simply pressing in on the dial.

- Manage Recording Start / Stop without a Computer

Besides controlling the collection of data, the RTR-500DC can manage recording settings such as: Programmed Recording Settings and Immediate Record. This enables the user to easily control various recording settings for a variety of models on-site without the need for a computer.

- Battery Life Warning Display

When the battery power goes low, a battery life warning will be displayed. If the battery is not changed the RTR-500DC will automatically go into sleep mode.

- Trustworthy Backup Function

If, after the battery warning display appears, the battery power goes even lower the RTR-500DC will automatically go into sleep mode. Although, in sleep mode, the unit cannot be operated and power cannot be turned on, all data will be safely stored without loss.

Note

- If after going into sleep mode, the battery is not changed for about 1 month, or if the battery is left out of the RTR-500DC for more than 2 minutes, all data will be lost.

- Over 96 Hours on 2 Alkaline Batteries

The RTR-500DC takes advantage of our exclusive circuitry design to bring over 96 operating hours worth of power on only 2 AAA alkaline batteries. Energy efficiency is further enhanced with our Auto Power Off Function.

Note

- Battery Life varies according to type of battery, measuring environment, transmission frequency, and ambient temperature. This estimate of battery life was based on normal use under normal conditions using a new batteries. This is in no way or manner a guarantee of battery life.

- Auto Power Off Function

To save battery energy the RTR-500DC will automatically be turned off when not in use for 3 minutes.

- Backlight Display for Viewing in Dark Places

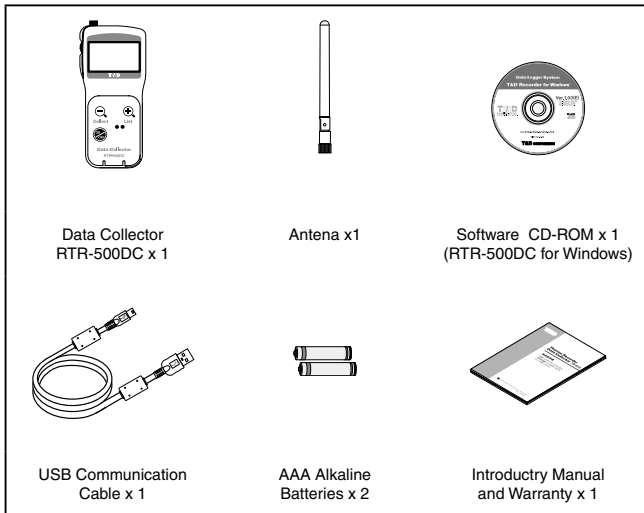The RTR-500DC comes equipped with a backlight display for easy viewing even in hard to see places. The light can be switched ON/OFF in the main menu. If set to be ON, it will light up when operation begins and automatically turn off when operation stops for a few seconds, saving battery energy.

Note

- If an outside power source is being used, the back light function will normally be ON.

Contents of Package

The following items are included in the package.

Data Collector
RTR-500DC x 1

Antena x1

Software CD-ROM x 1
(RTR-500DC for Windows)

USB Communication
Cable x 1

AAA Alkaline
Batteries x 2

Introductry Manual
and Warranty x 1

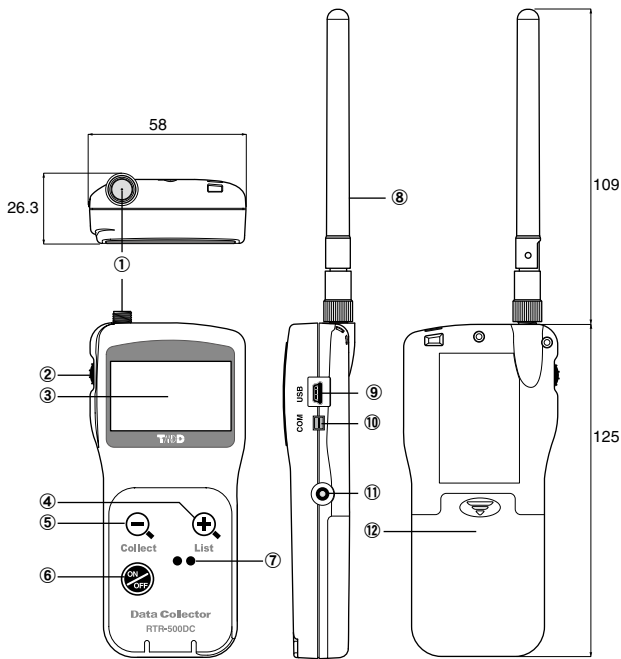## Connecting the Antenna

Connect the supplied antenna to the antenna connector.
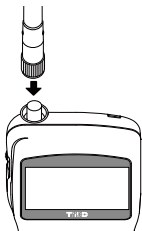
Appearance Diagram and Part Names

(Unit : mm)

① Antenna Connector
② Operation Dial
③ LCD Display
④ List Button
⑤ Collect Button
⑥ Power ON/OFF Button
⑦ Optical Communication Area

⑧ Antenna
⑨ USB cable connection jack
⑩ RS-232C Communication cable connection jack
⑪ AC adaptor connection jack
⑫ Battery Compartment

Installing the Software

⊘ **Make sure to install the software before connecting the Unit to a PC with the USB cable.**

If you have connected a Unit to your computer before installing the USB device driver, make sure to click the [Cancel] button in the Wizard window when it pops up on the computer display. Then disconnect the USB cable from the Unit.

Before Installing the Software

Is Windows working properly?

If Windows is not operating properly, the software may not be installed correctly or it may not operate properly.

Make sure to check that the OS you are running and　RTR-500DC for Windows　are compatible.

Microsoft Windows 7 32/64bit English

Microsoft Windows Vista 32bit English

Microsoft Windows XP 32bit (SP2 or above) English

- For details about the necessary operating environment, see page 51.

Quit all other applications

If you are running other applications, make sure to quit them before installation. If you have any permanently active software, such as a virus check or scan program in your computer, make sure to also quit it.

To install　RTR-500DC for Windows　, it is necessary to have Administrator rights (Computer Administrator) for the computer in which you wish to install it.

Procedure for Installing the Software

This explanation uses displays from Windows XP SP2.
- If your OS is Windows Vista or Windows 7, the window layout may be slightly different. However, the message contents and the button operations are the same, so please follow the directions as written below.

1. Open Windows.

2. Place the supplied software (CD) into the CD-ROM drive. The "Install Program" window will appear soon.

* In Windows Vista or Windows 7, if the [Auto Play] window appears, click on "Run Start.exe".
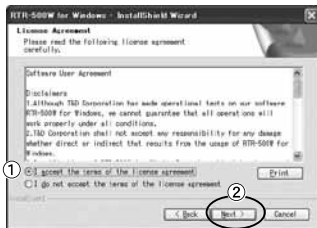
If the "Install Program" window does not automatically open, please open it by double clicking on the CD drive icon in [My Computer].

3. Select "Install RTR-500DC for Windows" and click the [Execute] button to start the installation.

4. The "RTR-500DC for Windows" Setup Wizard window will appear.

Click the [Next] Button

5. The "Software License Agreement" window will appear.

① Please read all the terms stipulated in the agreement. Check "I accept the terms of the license agreement" if you accept the terms.

② Click the [Next] button.

6. The "Choose Destination Location" window will appear.
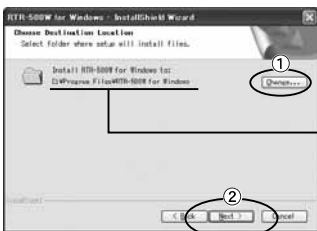
① By clicking the [Change] Button it is possible to change the installation folder.

Info for file to be installed

② Click the [Next] button.

7. The "Ready to Install the Program" window will appear.
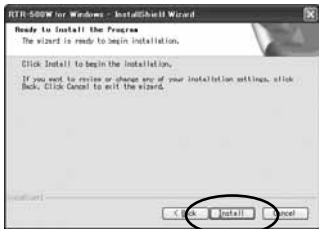
Click the [Install] Button to begin installation.

Although a warning message such as below may appear, there is no problem, please move on to the next step.
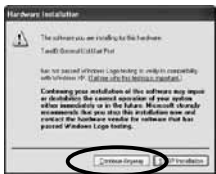
Warning Message
For Windows XP

Click the [Continue Anyway] Button

For Windows Vista and Windows 7

Click the [Install] Button

8. After installation has been completed, "RTR-500DC for Windows" will be registered in the Window's [Start] Menu.

   After having installed the supplied software it is necessary to install the USB Device Driver.

   - See the following pages for details.

About USB Device Drivers

> ⚠️ **Have you installed the software?**
>
> Before connecting a Unit to a PC with a USB cable make sure to install the Software first.

For Units using a USB connection, it is necessary to first install the Software, and upon connecting the Unit to the PC with a USB cable it is necessary to install the USB Device Driver. A USB Device Driver enables the PC to recognize the connected device and ensure proper operation.

- To ensure a proper connection, make sure that the USB cable is inserted fully.
- Login using a User Account with Administrator (Computer Administrator) rights.

Users of Windows XP must carry out the Installation Procedure.

Upon connecting a Unit to your PC, the [New Hardware Detection Wizard] will automatically open. Please carry out the procedures on the following pages to install the USB Device Drivers for the Base Unit (RTR-500DC), Remote Units (RTR-574), and if necessary, Repeaters (RTR-500).

- In XP, if the Wizard window does not automatically open, installation may have not been fully completed or failed. Please check the USB device driver.

Users of Windows Vista or Windows 7 do not have to carry out this installation.

By installing the supplied software, the USB Device Drivers for the Base Unit, Remote Units and Repeaters will also be automatically installed. It is not necessary to carry out any extra steps to install the USB Device Drivers.

- See page from 28 of this Manual for about how to confirm that the USB Device Driver has been properly installed.

Procedure for Installing the Base Unit USB Device Driver

> ⊘ **Carry out all USB Device Driver installations for only one Unit at a time.**

Users of Windows XP should carry out the following procedure to install the USB Device Driver.

1. By connecting a Base Unit to your computer, the [New Hardware Detection Wizard] will automatically open.
   - The "Wizard" window will only appear upon the first connection.

① Check "No, not this time".

② Click the [Next] Button.

③ Check "Install the software automatically (Recommended)".

④ Click the [Next] Button.

2. The installation process will begin.

If a warning message window appears, click the [Continue Anyway] button, and continue with the installation.

3. Once the completion message appears, installation has finished.
Click the [Finish] Button.

Procedure for Installing the RTR-574 / Repeater USB Device Driver

> ⚠ **Carry out all USB Device Driver installations for only one Unit at a time.**

Users of Windows XP should carry out the following procedure to install the USB Device Driver.

1. By connecting a Remote Unit (RTR-574) or a Repeater to your computer, the [New Hardware Detection Wizard] will automatically open.

   The "Wizard" window will only appear upon the first connection.

① Check "No, not this time".

② Click the [Next] Button.
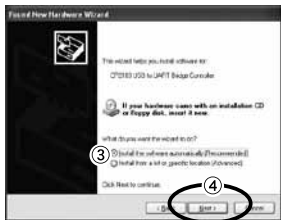
③ Check "Install the software automatically (Recommended)".

④ Click the [Next] Button.

2. The installation process will begin.
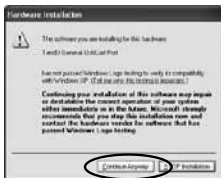
If a warning message window appears, click the [Continue Anyway] button, and continue with the installation.

3. Once the completion message appears, installation has finished.

   Click the [Finish] Button.
   - See page from 16 of this Manual for about how to confirm that the USB Device Driver has been properly installed.

Checking a USB Device Driver

> ⚠ **Check the USB Device Driver installation for one device at a time.**

The checking procedure is the same for the Base Unit, Remote Units and Repeaters.

Check using the following steps:

1. Open the Device Manager window.
   Procedure example:

① In the Windows Start Menu, click on "Control Panel" to open.

② Click on "Performance and Maintenance".
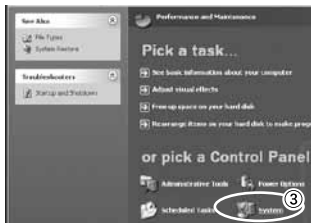
③ Click on "System".
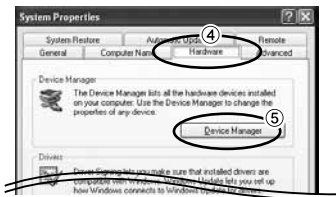
④ In the System Properties Window, click on the [Hardware] tab.

⑤ Click the [Device Manager] Button.

2. Connect the target Unit to the computer with a USB cable and look at the icon displayed in the Device Manager window in order to check whether or not the USB Device Driver has been properly installed.

If successful (example)

- Ports (COM & LPT)
  - Communications Port (COM1)
  - ECP Printer Port (LPT1)
  - TandD General UsbUart Port

If failed (example)

- Other devices
  - TandD USB-UART Controller
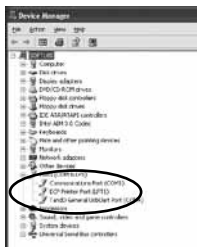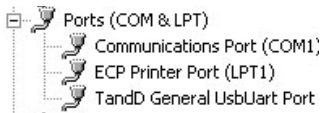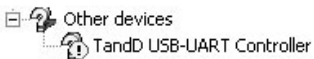
> If the icon appears with an " ? " or an " ! ", the PC is not
> properly recognizing the Unit.
>
> Windows XP   Windows Vista /
>   Windows 7

3. If your PC does not properly recognize a Unit, please
   re-install the USB Device Driver by following the directions
   on the next pages.

Re-installing the USB Device Driver

1. Right click on the icon.

2. From the pop-up menu click on "Properties" .

Other devices
TandD USB-UART Controller

Update Driver...
Disable
Uninstall

Scan for hardware changes

Properties
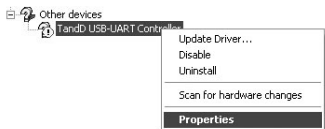
3. When the following window appears, click on the [Reinstall Driver] button to display the Wizard window.

[General] Tab Window

TandD USB-UART Controller Properties

General | Driver | Details

TandD USB-UART Controller

Device type: Other devices
Manufacturer: Unknown
Location: Location 0 (TandD USB-UART Controller)

Device status:

This device is not configured correctly. (Code 1)

To reinstall the drivers for this device, click Reinstall Driver.

Reinstall Driver...

[Reinstall Driver] Button

Device usage:

Use this device (enable)

OK   Cancel

4. If you are using Windows XP, please follow the directions below and move on to step 6.
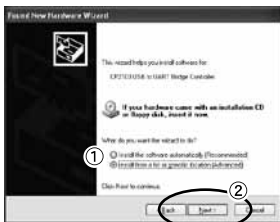
① Check the "Install from a list or specific location (Advanced)".

② Click the [Next] Button.
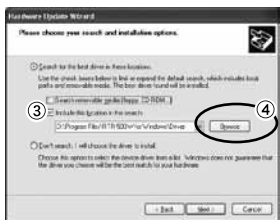
③ Check the "Include this location in the search:".

④ Click the [Browse] Button.

5. If you are using Windows Vista or Windows 7, please follow the directions below.
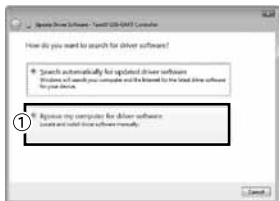
① Click the "Browse my computer for driver software".
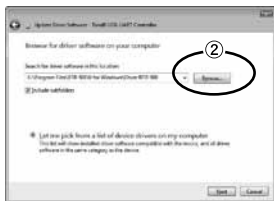
② Click the [Browse] Button.

6. Specify the location of the Driver.
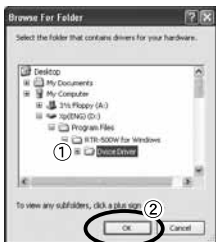
① Click the plus (+) sign next to the folder into which the software was installed and specify "Device Driver" as the driver location.

② Click the [OK] button to return to the Wizard window.

7. In the Wizard window, check to make sure that the Driver is specified correctly. Then click the [Next] button.

For Windows XP

For Windows 7 and Windows Vista

Location Example:
C:\Program Files\RTR-500W for Windows\Driver RTR-500

8. The installation process will begin.

   Please note that the following warning messages may appear during installation. However, this will cause no problems with USB device driver installation. Please move on to the next step.

Warning Message
For Windows XP
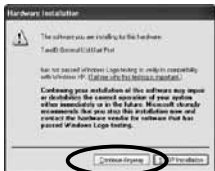
Click the [Continue Anyway] Button

For Windows Vista and Windows 7

Click the [Install] Button

9. After installation has been completed, please click the [Finish] or [Close] button.

10. Check to make sure that the USB Device Driver has been properly installed.

   See page from 16 of this Manual for details.

■ **Explanation of the Button Functions**

Collect
- When downloading via wireless communication the [Select Group] display will appear.
- Allows you to swift-scroll across data when viewing a graph or an event list.

List
- The downloaded data list will be displayed.
- Allows you to swiftly make changes to the upper and lower limit value settings.

POWER
- Switch Power ON/OFF.

■ How to Use the Operation Dial

Move the dial up

Press in
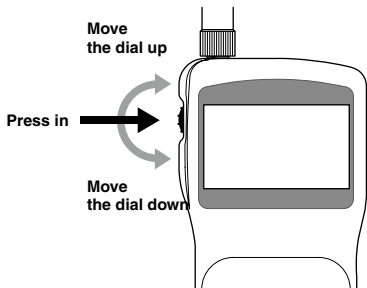
Move the dial down

[Moving the dial up and down]

- By moving the dial up or down the arrow will move to allow you to choose the desired item. The selected part will be displayed in an easy-to-see inversed shade.
- When setting a numerical value, by moving the dial up the value will become larger and by moving the dial down the value will become smaller.

[Pressing in on the dial]

- Switching the Power On.
- You cannot switch the power OFF with the operation dial. Press in on the <POWER> button.
- By pressing in on the dial, you can make a desired menu selection or complete and activate a setting.
- Keeping the dial pressed in (1.5 seconds) will activate different functions depending on the display being viewed.
  If you keep it pressed in while viewing the graph display, you can change the display channel.

■ LCD Display
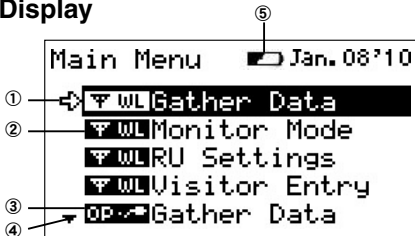
① The item marked with an arrow [⇨] denotes it has been selected. If you move the operation dial up and down, the arrow will move accordingly and by pressing in the dial the item selected will be activated.

② Items marked with [▼ WL] indicate menus for Wireless Communication.

③ Items marked with [OP] indicate menus for Optical / Wired Communication.

④ A [▲] [▼] indicates that there are more menu items above [▲] or below the [▼] to view.

⑤ When battery life goes low, a battery life warning mark [▭] will be displayed to inform you it is time to replace the battery.
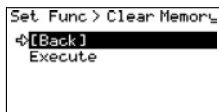
If there is a [BACK] is displayed, adjust the arrow to [BACK] and press it to complete the setting and take you back to the menu display.

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■ Recorded Data Displays

Graph Display

Valious measurement Data that has been downloaded to an RTR-500DC unit can be displayed in Graph form.
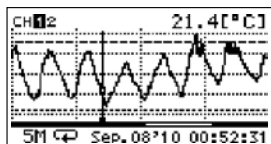
Current Readings Monitoring

The RTR-500DC can be set to patrol and monitor Remote Units groups and display in order the current readings for view.
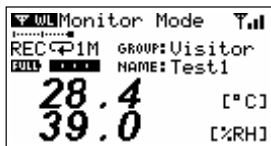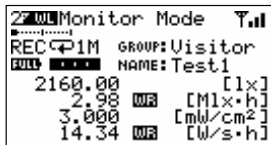
Installing the Batteries.

Two AAA type Alkaline, or Ni-MH (1.2V) batteries may be used, but be sure not to mix types of batteries and to insert them in the correct direction to align + and -.
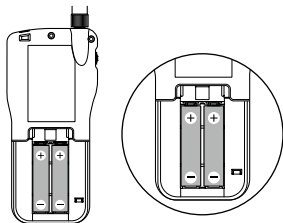
Note
 - The RTR-500DC unit has no battery recharging ability.
 - If using an outside power source, batteries are not necessary.

About Battery Life

When battery life goes low, a battery life warning mark will be displayed to inform you it is time to replace the battery. If battery life goes even lower, the Unit will automatically go into sleep mode in order to save data.
 - In sleep mode, the Unit cannot be turned on or operated as usual.
 - When replacing the battery, if the battery has been removed for more than five minutes, the data stored in the Unit may be erased. It is recommended to first download any necessary recorded data to your computer before replacing the battery.
 - Also, you will lose all data if the battery drains completely; make sure to replace the battery as soon as possible.

POWER and Auto Power Off Function

Switch the power ON by pressing the <POWER> button or the Operation Dial. To switch the power OFF, press the <POWER> button. You cannot switch the power OFF with the Operation Dial.

Press the
Operation Dial

or

<ON/OFF>
Button
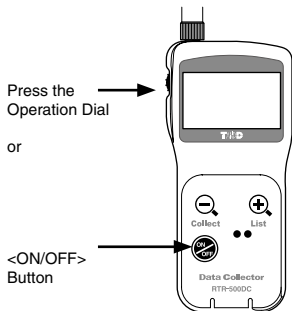
[Auto Power Off Function]

If the main unit is not in use for 3 minutes, the power will be automatically switched off in order to save battery power. If you wish to continue to use, switch the power on again.

Note
- If using the monitoring function, the Auto Power Off function will not go into effect.
- AUTO power OFF is not done while being connecting USB or AC adaptor.

Setting the Date and Time

Follow the procedure below to make clock settings for the Unit.

1. In the Main Menu, go to [Set Functions] and select [Set Clock].

2. Set the desired values.

```
Set Func > Set Clock
  [Back]
  Sep/08/'10 18:37:46
  Time Zone GMT+00:00
```
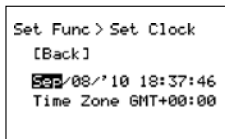
(1) Moving the Operation Dial up and down will change the selection item of the display in the order of month, day, year, hour, and minute. By pressing the dial, the value for that item will flash.

(2) Change the value by moving the dial up and down. Press the dial again to set the selected value and move to the next settings item.

3. After having completed the clock settings, move the arrow to [Back] and press the dial to return to the Menu Window.

```
Set Func > Set Clock
⇨[Back]
  Sep/08/'10 18:39:07
  Time Zone GMT+00:00
```
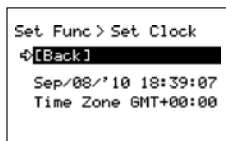
[Time Zone]

By setting the region in which the Unit will be used the time difference will be automatically set. Daylight Savings Time settings must be set manually.

- Please make sure that the date and time settings in the Unit is correct, if it is not, the recording start time and recording time of downloaded data will be incorrect.
- Clock settings for the Unit can also be made from your computer by using the software supplied with the Unit. For more details, see the [Help] Menu in the supplied software or the User's Manual that accompanies it.

Communicating with the Computer

For direct communication with your computer to download or make setting changes, etc... please use a USB communication cable (provided) or the serial cable (optional).
You can transfer the registration contents from one RTR-500DC to another via the attached software. For details see the [Help Menu] in "RTR-500DC for Windows" or the Introductory manual that accompanies it.

Note

- Communication with a computer cannot be carried out while a wireles communication session is occuring

■ For USB
Communication between RTR-500DC and your Computer

You will need to install the USB Device Driver in order to use the device with a USB cable and Windows. After installing, your computer will be able to detect and recognize an RTR-500DC device that has been connected with a USB cable.

USB mini-B
To the RTR-500DC

USB A
To the computer

Included
USB Cable (US-15C)
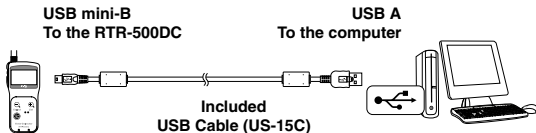
■ For Serial (Use Optional Cable)
Communication between RTR-500DC and your Computer

1. Connect the Serial Communication Cable to a serial port on your computer.

2. Connect the Serial Cable to the COM port on the RTR-500DC.

> **Examples of Serial Port Symbols**
>
> The cable connection is a D-sub 9pin male. Please connect to the place that has such a symbol.

RS-232C Communication cable connection jack

D-Sub9 Pin male to PC

Optional Serial Communication Cabe (TR-07C)
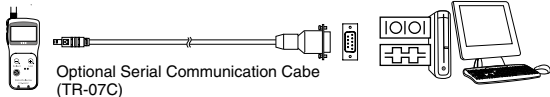
Note
- Be sure the connections are correct. If wrong, communication will not be possible.
- To prevent faulty contact, make sure to fully insert the communication cable until you hear a "click" sound.

■ Communication between RTR-501/502/503, and your Computer

1. Connect the communication cable.

   ① Connect the RTR-500DC Unit to your computer with the provided communication cable. (USB or RS-232C)

   ② Place the Data Logger on the RTR-500DC.

2. In order to carry out wireless communication, register Groups and Remote Units.

Place the unit face down on the RTR-500DC.

Communication Cable (to computer)
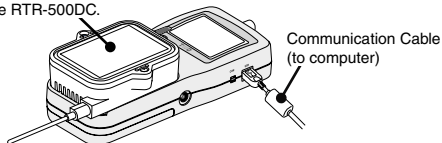
Note
- If light enters during communication, an error will occur. Please make sure to place the unit within the ridges for an exact fit.
- For details about how to register, see the [Help Menu] in the provided software [RTR-500DC for Windows] or the accompanying Introductory manual.

Communicating with the Data Logger

There are two ways to communicate between the RTR-500DC and the Data Logger.

■ Wireless Communication

Communication can occur via special short radio waves with the Remote Units.

Radius 150m (500ft)   Radius 150m (500ft)
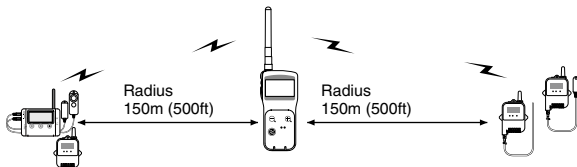
Note
- Wireless communication can only occur with those RTR-501/502/503 and RTR-574 logger units that have been registered as Remote Units via the accompanying software RTR-500DC for Windows.

The following operations can be done using Wireless communication.

- Download Recorded Data
You can download data to the RTR-500DC that has been recorded in Remote Units from a distance, without having to collect the units.

- Change Recording Conditions
You can control and change Recording Start Date and Time (Programmed Start).

- Monitor Current Readings
You can monitor the current measurements of a Remote Unit at a set interval or in groups with the measurements displayed consecutively.

■ Non-Wireless Communication

Optical Communication for RTR-501/502/503

Optical Communication Area

Place logger face down on RTR-500DC
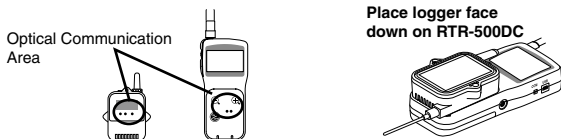
Via Optional Communication Cable for RTR-574

Connect using the optional communication cable TR-6C10
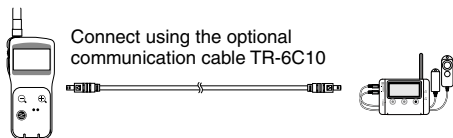
The following operations can be done using communication via cable or optical communication.

- Download Recorded Data

You can download any data that has been recorded in a Data Logger.

- Set the Recording Conditions

You can control and change Recording Start Date and Time (Programmed Start).

■ One Remote Unit can be set up to communicate with any number of RTR-500DC Units.

By registering the same Remote Unit info into a number of RTR-500DC Units it is possible to check and control settings, as well as download to any RTR-500DC Unit that carries that Remote Unit's registration information.

Note

- If you try to carry out communication between one Remote Unit and several RTR-500DC Units at the same time, an error message will appear.
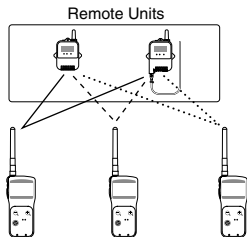
Remote Units

Wireless Functions: Gather Data
Downloading Recorded Data

```
Main Menu      Jan.01'10
→ ▼ WL Gather Data
  ▼ WL Monitor Mode
  ▼ WL RU Settings
  ▼ WL Visitor Entry
↓ OP ← Gather Data
```

1. In the Main Menu, open [▼ WL Gather Data] .
2. Choose a Group.
3. Select the Remote Unit you wish to download the data from.
4. Press on [Execute].

```
▼ WL Gather Data
  [Back]
→ Execute
① ──── Rpt Route :No Rpt
② ──── Before    :1 hour
```
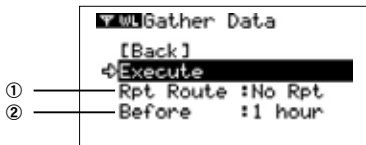
① Rpt Route : Repeater Route

Choose from No Rpt (No Repeter) or Obey Reg (Obey Register)

② Before :Period of Data

You can set the period (how many hours or days before now) from which you wish to download data.

- You can select from 1 to 47 hours (in 1 hour units) / 2 to 300 days (Less than 300 days in units of 1 day, or ALL DATA.
- If you specify the period of data that is earlier than the period of the data saved in the remote unit, all saved data will be downloaded.

5. Press on [Execute].

If Downloading Recorded Data Fails

If there is not enough memory remaining, the message [Memory Over] will appear and downloading will stop. Please save recorded data from the TR-57DCi to your PC and delete unnecessary data from the TR-57DCi to make space for downloading new data from the Data Logger.

```
Ir Gather Data
                        0.00

                        0.00
⇄[Back]  Memory Over
```
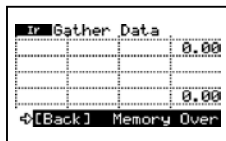
Wireless Functions: Monitor Mode
Monitoring Current Readings

The RTR-500DC can be set to patrol and monitor Remote Units
groups and display in order the current readings for view.

1. In the Main Menu, open [WL RU Settings] and then Select [Monitor
  Mode] .

2. Select the monitoring range and Set the monitoring interval.

3. Press Operation Dial.

```
WL Monitor > Scope
  [Back]
① All Groups
② Specify Group
③ Specify Remote Unit
④ Interval :60M
```

① All Groups

Remote Units in all groups registered to the RTR-500DC will be contacted
via wireless communication.

② Specify Group

All Remote Units in the selected groups will be contacted via wireless
communication.

- If you wish to monitor using the [All Groups] range, it is possible to monitor only 120
  Remote Units. Therefore, when making changes to the [Set Number of Possible
  Registrations] make sure to register no more than 120 Remote Units to the Group or
  use the [Specify Group] range as oulined below.

③ Specify a Remote Unit

All Remote Units in the selected groups will be contacted via wireless
communication.

④ Interval

The monitoring interval is the amount of time between the starting
of wireless communication to gather current Remote Unit readings.
Selections can be made from 10 sec to 60 minutes (in 1 minute units).

- The amount of communication time depends on the number of registered groups
  and remote units. Please note that if the monitoring interval is set for less time than
  communication takes to complete a round of monitoring, the system will
  automatically extend the interval to allow for the necessary amount of communication
  time.

■ Monitor Mode Display

Current measurement readings for those units with which communication is possible will be displayed consecutively every 2 seconds. For those units with which communication is impossible the measurement will be displayed as [----].

For RTR-501/502/503
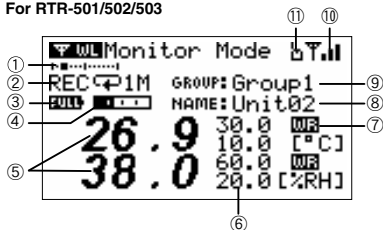
For RTR-574
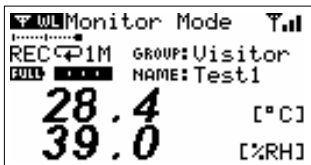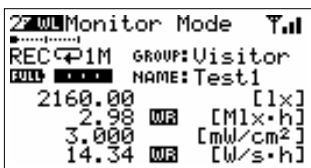
① The number of the cordless handsets displaying a cross axle
② Recording Status, Recordeing Mode Icon, Recording Interval (S: Seconds , M: Minute)
③ Battery Status of Remote Unit
④ Quantity of current record readings
⑤ Value of current readings
⑥ Upper / Lower Limit
⑦ Warning result
⑧ Remote Unit Name
⑨ Group Name
⑩ The strength of the wireless Radio wave at the time of the latest communication with the monitor
⑪ When there is it via Repeater, it is displayed

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Wireless Functions: RU Settings
Start / Stop Recording Remote Unit

1. In the Main Menu, open [☒ WL RU Settings] and then Select [Start Recording] or [Stop Recording] .

```
☒WL RU Settings

 [Back]
①──◇Start Recording
②── Stop Recording
```

2. Choose a Group in select menu.

3. Select a Group in which Remote Units are registered.

4. Press on [Execute].

■ Record Settings

```
☒WL Record Settings

 [Back]        23:49:21
 ◇Execute
①── Start   :Programmed
②── Interval:1M   ⊂⊃ ──④
③── Jan/06/'10 00:00:00
```

① Start (Recording Start)

Choose from Immediate Start / Programmed Start

② Interval (Recording Interval)

It is not possible to set it with the Unit. The content set with the dedicated software is displayed.

③ Start Date and Time

If you are making changes to a programmed start, make sure to set start time.

④ Recording Interval and Recording Mode Icons

It is not possible to set it with the Unit. The content set with the dedicated software is displayed.

|→| One Time: Recording will stop when the data capacity becomes full storage

⊂⊃ Endless: Recording will continue with oldest data continuously overwritten.

Wireless Functions: Visitor Entry
Entry / Release Visitor Remote Unit

■ Accept Visitor RU (Remote Unit)

1. In the Main Menu, open [❤ WL Visitor Entry] and then Select [Accept Visitor RU] .

```
❤ WL Visitor Entry
[Back]
⇨ Accept Visitor RU
  Release One
  Release All
```

2. Press on Operation Dial.

```
❤ WL Accept Visitor RU
⇦ [Back]

Serial No: 3FBC000C
Unit Name: madn_5.7
                Completed
```

Completed

Vistor Entry Completed, shows Serial No, of Remote Unit. and Unit Name on this Units has given automaticaly

```
❤ WL Accept Visitor RU
⇦ [Back]

Serial No: 3FBC000C
Unit Name: madn_5.7
               Duplication
```

Duplication

Vistor Entry Completed, shows Serial No, of Remote Unit. and Unit Name on this Units has given automaticaly

```
❤ WL Accept Visitor RU
⇦ [Back]



             Must be 5xx
```

Incompatible

The unit accept RTR-500 series Data Loggers only.

■ Release One / ALL

Select the Visitor Remote Unit you wish to Release from [Release One] or [Release All] and Press on [Execute].

Non-Wireless Communication Functions

■ Gather Data

Connect the RTR-500DC to the Data Logger either by placing it on the Collector for optical communication or connect via the optional communication cable.

■ Record Settings

```
┌─────────────────────────┐
│ ▼ WL Record Settings     │
│ [Back]         23:49:21  │
│ ⇨Execute                 │
│ Start  :Programmed       │
│ Interval:1M    ↻         │
│ Jan/06/'10 00:00:00      │
└─────────────────────────┘
```

① — Start
② — Interval:1M
③ — Jan/06/'10 00:00:00
④ — ↻

① Start (Recording Start)
Choose from Immediate Start / Programmed Start

② Interval (Recording Interval)
Choose from :

10~59 S (seconds) per second / 1~ 60 M (minutes) per minute

③ Start Date and Time
If you are making changes to a programmed start, make sure to set start time.

④ Recording Interval and Recording Mode Icons
It is not possible to set it with the Unit. The content set with the dedicated software is displayed.
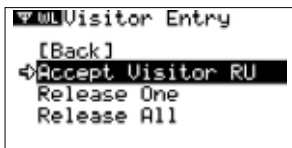
|→| One Time: Recording will stop when the data capacity becomes full storage

↻ Endless: Recording will continue with oldest data continuously overwritten.

Data List: Display Graph

In this display you can view in graph form the recorded data collected by the Unit. A graph is displayed for each channel of data and can be scrolled left and right with the Operation Dial or by the buttons on the Unit.
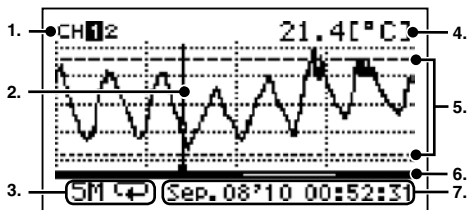
1. Displayed Channel

If there are multiple channels of recorded data, you can change the channel on display by holding in the Operation Dial (for about one second).

2. Cursor

By moving the Operation Dial, you can scroll the cursor left and right to view the recording date and time and measurement for that point where the cursor is positioned.

3. Recording Interval and Mode

The "Recording Interval" and "Recording Mode" for the displayed data are shown here.

S: Seconds, M: Minutes, ⊢→⊣: One Time, ↻: Endless

4. Measurement at Cursor Position

The corresponding measurement value is displayed for the date and time where the cursor is positioned.

[°C/°F]: Temperature

[%RH]: Humidity, [hPa]: Barometric Pressure

[lx]: Illuminance

[mW/cm^2]: UV Light

5. Upper and Lower Limit

If Upper and/or Lower Limits have been set in the Data Loggers these limits will be shown using dotted lines.

6. Graph Display Range

From the entire range of recorded data this line shows the range of data currently on display. You can use the <⊕List> button on the Unit to zoom in and the <⊖Collect> button to zoom out on data.

7. Date and Time of Cursor Position

The date and time of the current cursor position are shown here.

Upper and Lower Limit Judgment

Upper and/or Lower Limits are set when making Recording Start settings from a PC. When downloading recorded data from Remote Units for which Upper / Lower Limits have been set, the judgment result will be displayed automatically upon completion of the downloading and at the time of graph display.
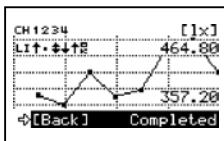
Upon Completion of Downloading
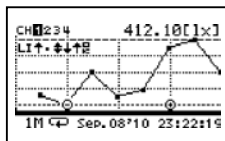
At Time of Graph Display (shows for about 5 seconds)

Reading Judgment Results

Starting from CH1, the results will be displayed in rotation.

⊟ :	No measurements were over the set limits.
↑ :	One or more measurements exceeded the Upper Limit.
↓ :	One or more measurements exceeded the Lower Limit.
↕ :	Measurements exceeded both the Upper and Lower Limits.
▪ :	Upper and Lower Limit Settings were not made.

Data List: Deleting Data

All downloaded data is temporarily saved in the Unit. It is possible to select it for deletion.

Deleting Selected Data

1. In the Main Menu, open [Data List]. Select the data you wish to delete and press the Operation Dial.

Main Menu

```
Main Menu      Sep.09'10
  ■If Gather Data
  OP■Gather Data
  OP■Record Settings
◇ Data List
  Set Functions
```

Select data

```
Data List > Select Data
▲ No6 TR74Ui ch1
  No5 TR77Ui Ch1
◇ No4 RTR574 Unit03
  No3 TR51i ch1
▼ No2 RTR501 Unit01
```
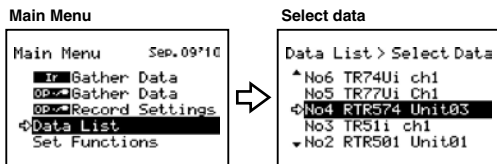
2. Move the arrow to [Select Delete] and press the Operation Dial.

```
Data List >Sel.Process
  [Back]  List No6
  Display Graph
◇ Select Delete
```
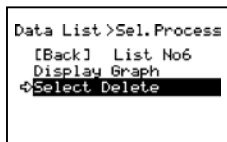
3. A confirmation screen will appear. Select [Execute] to delete the selected data or [Back] not to delete it, and press the Operation Dial.

```
Data List > Sel.Delete
  [Back]  List No6
◇ Execute
```
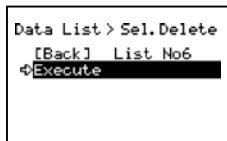
4. Upon completion of deletion, it automatically returns to the data selection display.

- When you want to delete all data, please execute [Memory Clear] in [Set Functions] .

Set Functions: Operational Settings

By changing the Unit of Temperature, the Recorded Data display in the Unit and the LCD display on the target Remote Unit(s) for which recording was started from the Unit will be also be changed to reflect the new setting.

■ Set Temp Unit : Changing Unit of Temperature

1. In the Main Menu, open [Set Functions] and [Set Temp Unit].

```
Set Func > Temp Unit
  [Back]     °C ◄─────── Current Setting
     °C
Select ⬜ ⬦°F
```
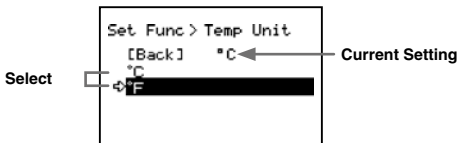
2. Move the arrow to [°C] or [°F] and press the Operation Dial.

Default value: [°F]

3. Move the arrow to and click on [Back] to return to the Main Menu.

■ Set Backlight : Adjusting the Backlight

1. In the Main Menu, open [Set Functions] and [Set Backlight].

```
Set Func > Backlight
⬦[Back]

  Backlight : 50
```
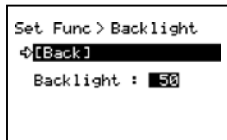
2. Move the Operation Dial up to make the light brighter and down to make it darker.

Default value: 80 (OFF, 1 to 100)

3. Press the Operation Dial to return to the Main Menu.

The backlight maintains lighting while connecting the AC adaptor.

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■ Set Contrast : Adjusting Contrast

1. In the Main Menu, open [Set Functions] and [Set Contrast].

```
Set Func > Contrast
⇦[Back]
  Contrast :  65
```
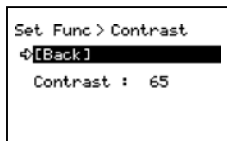
2. Move the Operation Dial up to make the display darker and down to make it lighter.

Default value: 65 (0 to 100)

3. Press the Operation Dial to return to the Main Menu.

■ Check Memory:

Checking Storage Capacity of the Unit

1. In the Main Menu, open [Set Functions] and [Check Memory].

```
Set Func > Check Memory
⇦[Back]
  Memory :  43.7[%]
  Data   :    7
```
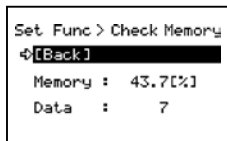
2. Press the Operation Dial to return to the Main Menu.

■ Clear Memory:

The memory of the Unit is adjusted to Zero.

1. In the Main Menu, open [Set Functions] and [Clear Memory].

```
Set Func > Clear Memory
◁[Back]
 Execute
```
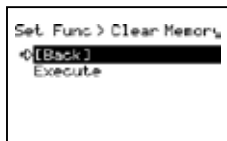
2. Press on the Execute.

■ Set Clock: Making Clock Settings

1. In the Main Menu, open [Set Functions] and [Set Clock].

```
Set Func > Set Clock
 [Back]
 Sep/08/'10 18:37:46
 Time Zone GMT+00:00
```
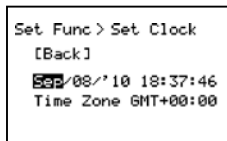
2. Select the item you wish to change and press the Operation Dial.

3. Move the Operation Dial up and down to adjust clock.

4. Move the arrow to and click [Back] to return to the Main Menu.

■ Beep: Muting the Operation Beep

1. In the Main Menu, open [Set Functions] and [Beep].

```
Set Func > Beep
 [Back]    OFF  ←——— Current Setting
⇨ON
 OFF
```

Select
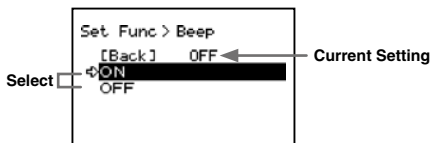
2. Move the arrow to either [ON] or [OFF] and press the Operation Dial to confirm.

3. Move the arrow to [Back] and press the dial to return to the Main Menu.

■ Battery Voltage: Checking Battery Voltage

1. In the Main Menu, open [Set Functions] and [Battery Voltage].

```
Set Func > Battery Volt
⇨[Back]

  Battery : 3.04 [V]
```
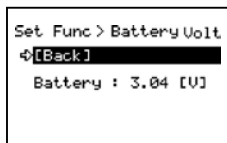
2. Press the Operation Dial to return to the Main Menu.

Battery Voltage:
When battery power depletes to about 2.30V, the battery life warning mark will appear.

■ Radio Wave Monitor:

Checking the Condition of Radio Wave Transmissions

Depending on the location of the logger, at special frequencies there may be some instances in which, due to radio wave interference or other causes, communication capability does not meet expected standards. To help avoid interference and reduce the chances of poor transmission, we suggest that before registering a Remote Unit you check the condition of radio wave transmissions and when creating a new Group assign the units to an empty frequency channel.

The radio wave strength is displayed in a scale from 1 to 5, with the higher the number the stronger the radio waves are.

Longitudinal axis:
Radio Wave Strength
(1 to 5)

Horizontal axis:
Frequency Channel
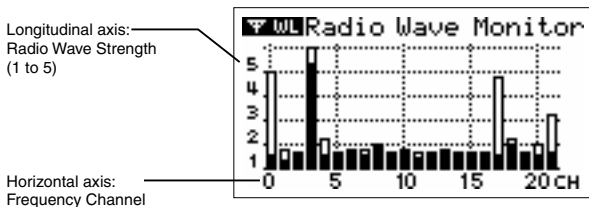
1. From the Main Menu, select [SET FUNCTIONS].

2. From the [SET FUNCTIONS] menu, select Radio Wave Monitor. (Wave Check)

3. Close the Radio Wave Monitor by pressing in on the operation dial. (Returns to the [SET FUNCTIONS] Menu)

Note
   - While using the Radio Wave Monitoring Function, the Auto Power Off Function will be disabled.

Menu List

📶 WL GATHER DATA

```
┌──────────┐     ┌──────────────┐     ┌──────────────────┐     ┌──────────────┐
│ [Back]   │ ──▶ │ [Back]       │ ──▶ │ [Back]           │ ──▶ │ Start        │
│ Group    │     │ RU / VRU List│     │ Execute          │     │ Downloading  │
│ List     │     │              │     │                  │     │ Data         │
└──────────┘     └──────────────┘     │ Repeater Rout :  │     │              │
                                       │ No Rpt / Obey Reg│     │ Canceled *   │
                                       │                  │     └──────────────┘
                                       │ Specify Period   │
                                       │ of Data to be    │
                                       │ Downloaded       │
                                       └──────────────────┘
```
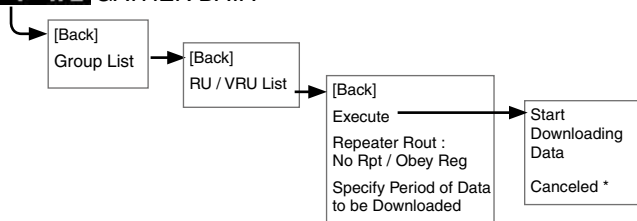
* It is possible to cancel by pushing the operation dial while Downloading.

📶 WL Monitor Mode

```
┌─────────────────────┐
│ [Back]              │
│ All Groups ─────────────────────────────────────────────────▶ ┌──────────────┐
│                     │                                          │ Start        │
│ Specify a Group ──▶ ┌──────────┐ ───────────────────────────▶ │ Serching     │
│                     │ [Back]   │                               │              │
│                     │ Group    │                               │ Canceled *   │
│ Specify a           │ List     │                               └──────────────┘
│ Remote Unit ──────▶ └──────────┘                               ▲
│                     ┌──────────┐    ┌──────────────┐           │
│ Interval            │ [Back]   │ ─▶ │ [Back]       │ ──────────┘
│                     │ Group    │    │ RU / VRU List│
│                     │ List     │    └──────────────┘
└─────────────────────┘
```
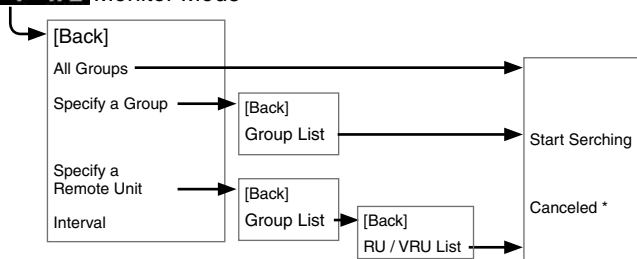
* It is possible to cancel by pushing the operation dial while Serching.

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📶 📶 RU Settings

[Back]

Start Recording → [Back]
Group List → [Back]
RU / VRU List → [Back]   Time
Execute ────
Start:
Programmed /
immImmediate
Interval *1

Recording
Mode*1

'YY/MM/DD
XX:XX:XX *2

Stop Recording → [Back]
Group List → [Back]
RU / VRU List → [Back]
Execute ───

[Back]
Confirmatin
Display
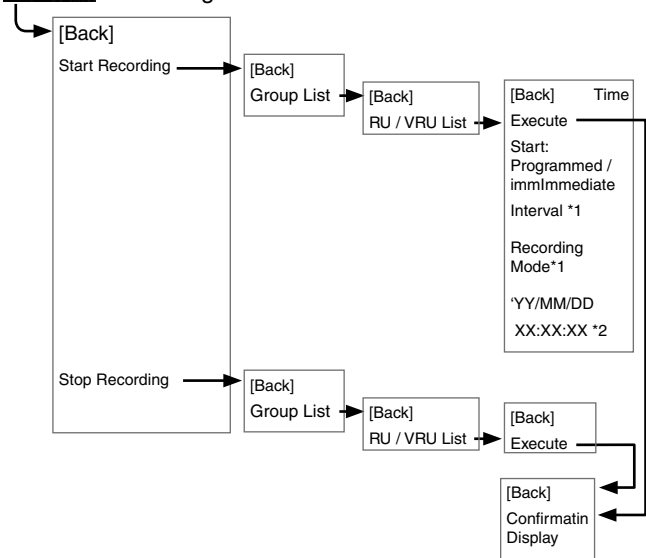
*1 Only the confirmation.
*2 Sets it for Programmed Start.

☰ WL Visitor Entry

[Back]

Accept Visitor RU →

[Back]
Join VRU, Push Dial →

[Back]
Serial No *

Unit Name *

Release One →

[Back]
Vistor List →

[Back]
Execute

Release All →

[Back]
Execute
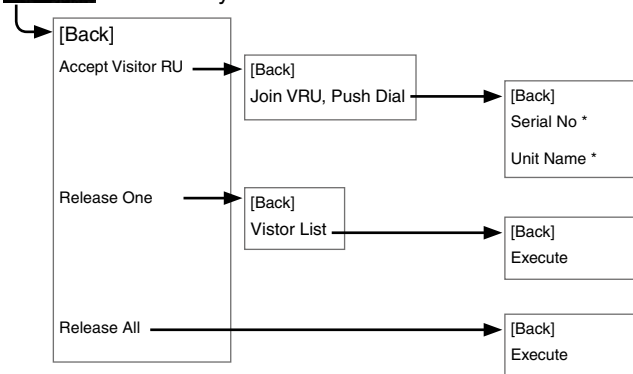
* Only the confirmation.

OP·▱ Gather Data

↳ Specify the period of data to be downloaded.

Upon completion of the download, a graph will appear.

OP·▱ Recording Settings

↳

[Back]

Execute → Send Recording Settings
to Remote unit.

Start

Interval*

REC Mode*

REC Mode*

YY/MM/DD XX:XX:XX *2

*1 Only the confirmation.
*2 Sets it for Programmed Start.

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Data List

```
[Back]          →   [Back]              →   (Press Operation Dial
Data List           Display Graph           to display Graph)
                                            [Back]
                                            Continue

                    Select Delete      →   [Back]
                                            Execute
```

Set Functions
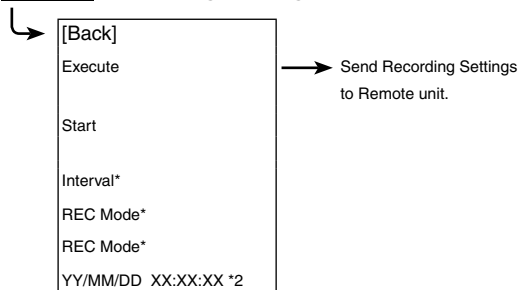
```
[Back]
Set Temp Unit       →   Back
                        °C
                        °F

Set Backlight       →   Back
                        OFF, 1 to 100

Set Contrast        →   Back
                        0 to 100

Check Memory        →   Back
                        Display Memory Usage (%)

Clear Memory        →   Back
                        Execute

Set Clock           →   Back
                        Settings

Beep                →   Back
                        ON
                        OFF

Battery Voltage     →   Back
                        Display Battery Voltage (V)

Radio Wave Monitor  →   Display
```

Specifications for RTR-500DC Data Collector

RTR-500DC Unit	
Compatible Devices	Remote Unit: RTR-501/501L, RTR-502/502L, RTR-503/503L, RTR-574 Repeater : RTR-500
Recording Capacity	16 units at full storage capacity16,000 readings x16= 256,000 readings. Can hold up to 250 downloading sessions
Functions	Downloading data (possible to display results of upper and lower limit check after downloading) Display Highest and Lowest Measurement after downloading Display Saved Data Graphs Set Recording Start for Remote Data Loggers Delete stored data (one reading) / Clear Memory Monitor Current Readings Search for Remote Units Wave Check (5-level display of radio wave strength for each channel (0-21ch.))
LCD Display	Operation Menu, Graph Display, Low Battery Life Warning, Calendar and Clock, Contrast Adjustment, Backlight
Power	2 AAA Alkaline Batteries (LR03) AAA Ni-MH 1.2V batteries Optional AC adaptor (AD-0638) USB Bus Power
Battery Life*	96 hrs* under Continuous Operation : 　Using 2 AAA Alkaline Batteries / Monitor Current Readings 　60 sec. pitch / No Repeater 32 hrs* under Continuous Operation : 　Using 2 AAA Alkaline Batteries / Checking the Condition of 　Radio Wave Transmissions 730 Downloading Sessions for RTR-501 at full storage capacity (calculated value) 　via Wireless communication / No Repeater / No Backlight 　function * Battery life varies depending upon the type of battery, the measuring environment, the frequency of communication, and the ambient temperature in which it is used.
Data Backup	About 1 month (Saved data will be erased if all battery power is lost.)
Communication Interface (with PC)	USB RS-232C(RS-232C)
Communication Interface (with Data Logger)	Short Range Radio Communication Optical Communication (RTR-50x) : 2,400 to 19,200 bps RS-232C (RTR-574) : 9,600 to 19,200 bps

Interface Communication Time	When downloading one Remote Unit at full storage capacity: 　Data from RTR-500DC to PC 　　USB :　　12 sec (1ch) / 24 sec (4ch) 　　RS-232C: 22 sec (1ch) / 42 sec (4ch) 　Data from Remote Unit to RTR-500DC 　　Optical:　170 sec (RTR-50x) 　　RS-232C: 45 sec (RTR-574)
Dimensions	H125mm x W58mm x D26.3mm (excluding Antenna Connector) Antenna Length: 109mm
Weight	About 127g (including 2 AAA Alkaline batteries)
Operating Conditions	Temperature: 0 to 50°C, Humidity: 90 % RH or less (no condensation)
Other	Not waterproof, moistureproof, or dustproof

Short Range Radio Communication

Radio Standard Specifications	FCC Part15 Section247 / IC RSS-210 Frequency Range: 902 to 928MHz
Communication Range	About 150m if direct and unobstructed.
Communication Time	When downloading one Remote Unit at full storage capacity:
RTR-50x	About 120 sec. *
RTR-574	About 240 sec * 　* The same amount of time will be necessary for each added Repeater.

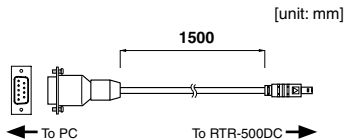# Software (RTR-500DC for Windows)

Operating Environment

| Compatible Devices	Base Units: RTR-500DC Remote Units: RTR-501/501L, RTR-502/502L, RTR-503/503L, RTR-574 Repeater: RTR-500
Compatible OS	Microsoft Windows 7 32 / 64bit English Microsoft Windows Vista 32bit English Microsoft Windows XP 32bit (SP2 or above) English
PC/CPU	A Stable Windows Operating Environment
Memory	A Stable Windows Operating Environment
Hard Disk	More than 30 MB of free space (More free space is necessary for data)
Monitor	SVGA (800 x 600) more than 256 colors

Optional Accessories

RS-232C Communication Cable

[unit: mm]

TR-07C
RS-232C Communication Cable
Cable Length: 1.0m (40 in)
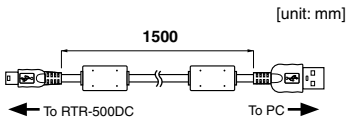Connector Type:
Specialized Connector D-sub9pin

1500

← To PC   To RTR-500DC →

TR-6C10
Cable Length: 1.0m (40 in)

1000

← To RTR-574   To RTR-500DC →

USB Communication Cable

[unit: mm]
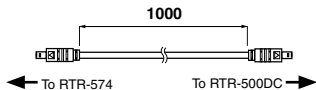
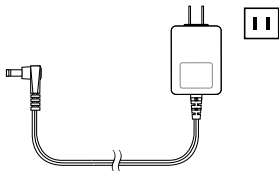**US-15C**
Cable Length: about 1.5m (60in)

1500

← To RTR-500DC   To PC →

AC Adaptor

AD-0638
Input: AC100-240V
Output: DC6V 500mA
Frequency: 50/60Hz
Cable length: 1.85m (74in)
Plug Figuration: A

For product information or questions contact us at:

T&D CORPORATION

817-1 Shimadachi, Matsumoto, Nagano, JAPAN 390-0852
Fax: +81-263-40-3152   E-mail: support@tandd.com

Website

http://www.tandd.com/

We have opened an English Website for your convenience. Here you can find
information about our company, news, products, upcoming events, software and
Introductory manual downloads, as well as, other support. Please stop by and
see what we have to offer.

Data Collector RTR-500DC

Introductory manual

Data Collector RTR-500DC Warranty

Customer's name: Address: Phone No.:	
Dealer's name: Address: Phone No.:	
Guarantee period	12 months from date of purchase
Date of purchase	

Provisions for Free Repair

1. **If the Unit does not work properly despite the fact that the customer used it properly and in line with the manual, the Unit shall be repaired free of charge through the distributor which sold the Unit.**

2. **If the customer requests free repair because of trouble within the warranty period, bring or send the Unit along with the warranty to the distributor.**

3. **If you have moved after purchasing, or there are difficulties contacting the distributor from which you purchased the Unit, please contact T&D directly for service.**

4. **Free repair is not available in the following cases even though it is within the warranty period:**

   1. Trouble or damage was caused by careless operation, natural disaster, fire, public pollution, or use of a power source other than specified.
   2. If repair, adjustment, disassembly or modification of the Unit has been carried out by a person other than a T&D authorized engineer.
   3. Trouble or damage was caused by transportation, movement or dropping of the Unit after purchase.
   4. Failure to submit the Warranty or failure to fill in all items required in the Warranty.

5. **The Warranty cannot be reissued.**
   This Warranty only promises customers free repair within the period and conditions clarified in this Warranty. Therefore, the customer's legal rights will not be limited by this Warranty. For further information on repair and other service questions after the termination of the warranty period, contact your distributor.

T&D CORPORATION