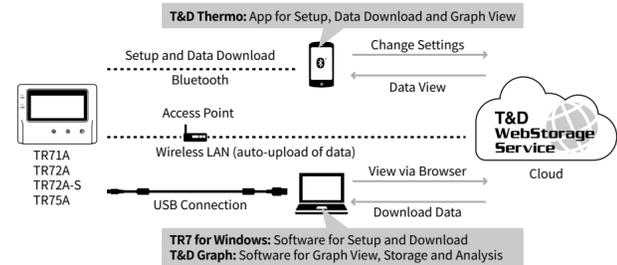


# Thermo Recorder TR7A Series User's Manual

T&D Corporation  
tandd.com 2022.10 16508230021 (6th Edition) © Copyright T&D Corporation. All rights reserved.

TR71A/TR72A/TR72A-S/TR75A are data loggers for measuring and recording temperature and humidity. The recorded data can be either directly downloaded to a smartphone or computer, or automatically uploaded to the cloud service via wireless LAN. By using the cloud service, it is possible to receive a warning notification by email when a deviation such as temperature excursion is detected.

Also, the TR71A and TR75A have a vaccine mode that is useful for managing vaccine temperature. The vaccine mode configuration can be done from a smartphone or computer.



In this document, TR71A, TR72A, TR72A-S and TR75A are collectively referred to as the "TR7A Series" or simply as the "device" or "logger".

## TR71A/TR75A Operational Differences by Measurement Mode

|                                   | Normal Mode  | Vaccine Mode   |
|-----------------------------------|--|--|
| <b>Max / Min Values</b>           | Max/Min temperature reading since the start of recording or reset (via buttons or software/app)  | Max/Min recorded value since the start of recording or reset (via buttons or software/app)   |
| <b>Warning Judgment Time</b>      | 30 sec to 60 min (9 selections)<br>A warning will be issued when a measurement exceeds the set threshold value or a sensor error occurs for longer than the set judgment time. | 0 sec.<br>If a recorded value exceeds the set threshold value or if a sensor error occurs, a warning will be issued.   |
| <b>Warning Display [ALM] Icon</b> | Warning alarms for exceeding a set upper and lower limit and for sensor errors will both disappear when the warning condition is resolved.                                     | Warning alarms for exceeding a set upper and lower limit will not disappear even after a value returns to within the threshold range. Warning alarms for sensor errors will disappear upon return to normal. |

## Free Cloud Storage "T&D WebStorage Service"

"T&D WebStorage Service" is a free cloud-based storage service provided by T&D Corporation, which enables you to access the uploaded recorded data from a web browser and check the current readings, remaining battery life of the device, and alert status. You can also receive warning notifications by email. In order to use the "T&D WebStorage Service", user registration (free) and device registration are required.

### Important Notes

\* Before registering as a user, please read [Service Details / License Agreement] for information on service contents and specifications, including the data storage period in the "T&D WebStorage Service".

\* The registration code of the device can be found on the supplied Registration Code Label. If you lose the code label, install the software "TR7 for Windows" and connect your logger via USB to the computer. The registration code and device information will be displayed at the lower-left area of the screen.

\* When the storage period in "T&D WebStorage Service" is exceeded, old data will be deleted.

### User and Device Registration Procedures

1. Access "T&D WebStorage Service" from the web browser.

[www.webstorage-service.com](http://www.webstorage-service.com)

- Click [Create Account] to go to the registration page, and follow the directions to complete the registration.
- Login by entering the registered User ID and Password.
- Click [Devices] in the left menu to open the Device Settings window.
- Clicking the [+Device] button will take you to the Add a Device page.
- Enter the serial number and registration code for the device, then click [Add].

## Marks on LCD Screen



|                     |   |
|---------------------|---|
| <b>Wireless LAN</b> | ON: Connected to the wireless network. (Signal strength: 1 to 3 bars)<br>BLINKING: Unable to connect to the wireless network.<br>OFF: Wireless LAN Settings are not made or Auto-Upload is "OFF". |
| <b>Web</b>          | ON: Connected to the server.<br>BLINKING: Unable to connect to the server.<br>OFF: Wireless LAN Settings are not made or Auto-Upload is "OFF".  |
| <b>[WPS]</b>        | ON: Wireless LAN Setup using WPS Possible   |
| <b>COM</b>          | ON: Connected via LAN, Bluetooth or USB.<br>BLINKING: Communicating via LAN, Bluetooth or USB   |
| <b>REC</b>          | Recording Status<br>ON: Recording in progress<br>BLINKING: Waiting for programmed start<br>OFF: Recording stopped   |

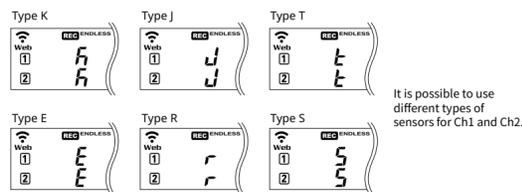
|                             |   |
|-----------------------------|---|
| <b>ENDLESS ONETIME</b>      | ENDLESS: Upon reaching the logging capacity of 30,000 readings, the oldest data is overwritten and recording continues.<br>ONETIME: Upon reaching the logging capacity of 30,000 readings, recording automatically stops.<br>Cannot be set or changed using buttons on the logger.  |
| <b>DATA</b>                 | Amount of Recorded Data in Device   |
| <b>Battery Warning Mark</b> | BLINKING: Indicates low battery<br>ON: Auto-upload will stop. (Recording will continue.)<br>• Replacing the batteries while this is displayed will allow recording to continue uninterrupted. Please change the batteries as soon as possible when you see this mark.<br>• If + (plus) and - (minus) are mistaken, or if the battery terminals + and - are shorted, the recorded data that is stored in the device will be lost.<br>• Measurement and recording will cease approximately 3 minutes after removing batteries. Please install new batteries quickly to avoid data loss. |
| <b>Upload</b>               | Auto Upload Interval  |
| <b>Rec.</b>                 | Recording Interval  |
| <b>1 2</b>                  | Displayed Measurement Channel   |
| <b>ALM</b>                  | BLINKING: Indicates either upper/lower limit error or sensor error  |
| <b>Max Min</b>              | Maximum and minimum values since the start of measurement or reset  |

## Messages on LCD Screen

|  |   |
|--|---|
|  | Indicates a sensor error (No sensor connected, improper connection, damaged, etc.)  |
|  | Recording Full (Recording Stopped)<br>This appears when the logging capacity (30,000 readings) is reached in "ONETIME" mode.  |
|  | Low Battery (Recording Stopped)<br>This appears if, after the battery warning mark is displayed, no action is taken and the batteries become too low to keep recording. Please refer to [About Battery Replacement] below, and change the batteries.<br>If the batteries are not changed, the display will automatically shut off. The previously recorded data will remain saved. The logger will then turn off the LCD display and reset the internal clock. Please refer to [About Battery Replacement] below, and change the batteries. |
|  | Firmware Version<br>This appears immediately after the power is turned on.  |

## Thermocouple Sensor Type (TR75A only)

By pressing and holding the <DISPLAY> button when in fixed display mode for Ch1/Ch2 current values, you can see which sensor type is currently set for each channel as shown below.



The factory default setting is "K" for both channels. Depending on the thermocouple type to be used, make settings or changes using the PC software "TR7 for Windows", mobile app "T&D Thermo", or cloud-based "T&D WebStorage Service".

## About Battery Replacement

Three stages of diminishing battery life are described below. It is recommended to replace the batteries at stage 1.

- When it is time for the battery to be replaced, a battery life warning mark will appear.
  - After Battery Replacement**
    - Recording will continue as it was before the battery replacement.
    - It is possible to download all saved recorded data.
- If you continue to use the device without replacing the batteries, the display will show this message and recording will stop.
  - After Battery Replacement**
    - Recording will remain stopped until you start recording. However, if the device communicates with the "T&D WebStorage Service" and the recording data is successfully uploaded, recording will resume.
    - It is still possible to download all saved recorded data. Please note that if you start recording before the recorded data is downloaded to a PC or uploaded to the server, all recorded data in the device will be lost.
- If the batteries are further left unchanged, the device will then turn off the LCD display and reset the internal clock.
  - After Battery Replacement**
    - Recording will remain stopped until you start recording. However, if the device communicates with the "T&D WebStorage Service" and the recording data is successfully uploaded, it will automatically synchronize the clock with the server and resume the recording.
    - If auto-upload is set to OFF, you will need to set the clock again.
    - It is still possible to download all saved recorded data. Please note that if you start recording before the recorded data is downloaded to a PC or uploaded to the server, all recorded data in the device will be lost.

## Factory Default Settings

Recording Mode: Endless  
Auto-Upload: OFF  
Warning Settings: OFF  
Time Zone: UTC+1:00 for Serial Number "No.4XXXXXXX"  
UTC-8:00 for Serial Number "No.3XXXXXXX"

Recording Interval: 10 min  
Upload Destination: T&D WebStorage Service  
Max/Min Auto Reset: ON / every day at 0:00

## Via Bluetooth®: Device Settings and Data Download using Mobile App

Install the batteries and sensor(s) in the logger, and make sure the LCD is displaying measurements.

The following explanations are based on the iOS version of "T&D Thermo".

### "T&D Thermo" App Preparation

- Install "T&D Thermo" to your smartphone or tablet.
  - \* Search for "TandD Thermo" on the Apple Store for iOS devices and the Google Play Store for Android devices.
- Open "T&D Thermo".
- On the top screen, tap [⊕ Add] to open the device registration page.
- By selecting the desired device in the list of Nearby Bluetooth Devices, its serial number will be entered automatically. Enter the registration code manually, then tap [Apply].
  - \* When turning on the "T&D WebStorage Service" in the Target Entity field, your account for "T&D WebStorage Service" needs to be configured in App Settings. (Refer to the "T&D Thermo" HELP - [Accessing Cloud Storage] for the App Settings.)
- After registering the devices, tap [◀] to return to the top screen.

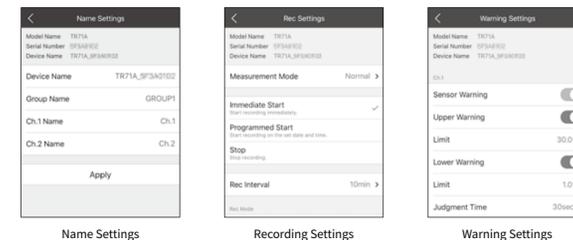
### Device Settings Screen

- Tap the device in the list to open the Device Info screen.
- Tap [Bluetooth] at the bottom of the screen. The app connects to the device via Bluetooth and opens the Graph/Device Settings screen.



### Device/Recording/Warning Settings

Make necessary changes in [Name Settings], [Rec Settings] and [Warning Settings] menu. Tap [Apply] to apply the changes to the logger.



### Items that can be set or changed in [Name Settings]:

Device Name, Group Name, Channel Name

### Items that can be set or changed in [Rec Settings]:

Measurement Mode (TR71A/TR75A only), Recording Start Method (Programmed Start or Immediate Start), Recording Interval, Recording Mode, Sensor Type (TR75A only),

- \* The Vaccine Mode setting is available for the TR71A/TR75A; tap Measurement Mode and select Vaccine.
- \* Upon the start of a new recording session all stored data will be deleted from the device.
- \* Changes to the recording interval and recording mode are applied at the start of recording; they cannot be changed while recording is in progress.



#### Recording Interval in Vaccine Mode

- In the vaccine mode, warning judgments are made on the recorded value at the interval set for recording on the logger.
- 1-hour interval is not available.

#### References:

##### Recording Intervals & Estimated Maximum Recording Times

| Recording Interval | 1 sec.        | 30 sec.       | 5 min          | 10 min (default) | 15 min       | 60 min          |
|--------------------|---------------|---------------|----------------|------------------|--------------|-----------------|
| Estimated Time     | About 8 hours | About 10 days | About 100 days | About 200 days   | About 1 year | About 3.5 years |

##### Recording Intervals & Corresponding Maximum Length (in days) of Data Stored in "T&D WebStorage Service"

| Recording Interval       | 1 sec. | 2 sec. | 5 sec. | 10 sec. | 15 sec. | 20 sec. | 30 sec. | 1 min.  | 2 min.  | 5 min.   | 10 min.  | 15 min.  | 20 min.  | 30 min.  | 1 hr.    |
|--------------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| Maximum Length (in days) | 1 day  | 2 days | 3 days | 6 days  | 9 days  | 12 days | 20 days | 40 days | 80 days | 200 days | 450 days |

### Items that can be set or changed in [Warning Settings]:

Sensor Warning, Upper Limit, Lower Limit, Judgment Time, Battery Warning

- If you wish to make the upper/lower limit settings in Fahrenheit, change the temperature unit in [Other Settings].
- By making warning settings, you will see the [ALM] blinking on the LCD screen of the logger when a deviation such as temperature excursion is detected. In order to receive a warning email, you need to make the network settings. (See [Auto-Upload Settings] below.) Warning mail recipients can be set in the "T&D WebStorage Service".



#### Warning Judgment Time in Vaccine Mode

- In the vaccine mode, warning judgments are made on the recorded value at the interval set for recording on the logger. (Warning Judgment Time is fixed to 0 sec. and cannot be changed.)

### Auto-Upload Settings

To automatically send the recorded data to "T&D WebStorage Service" or to use the warning mail function, configure the wireless LAN settings and upload interval in [Network Settings].

- In addition, your account for T&D WebStorage Service needs to be selected in App Settings.

### Items that can be set or changed in [Network Settings]:

Wireless LAN, Auto-upload Interval

- DHCP and proxy settings can be made by selecting a network in WLAN Settings - Edit Network.

#### Ref: Auto-Upload Intervals & Corresponding Estimated Battery Life

In general, the shorter the upload interval, the shorter the battery life.

| Upload Interval | 1 min         | 10 min         | 1 hr         | 12hrs or more   |
|-----------------|---------------|----------------|--------------|-----------------|
| Battery Life    | About 10 days | About 2 months | About 1 year | About 15 months |

- All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life.
- When Auto Upload is used frequently on TR71A, the measurement of the internal sensor may rise by around 0.3°C.

### Clock Settings

Go to [Other Settings] - Clock Settings and make necessary settings related to the time.

#### Auto-Adjustment

When using Auto Upload to the "T&D WebStorage Service", select either [Synchronize with SNTP Server] (recommended) or [Synchronize with T&D WebStorage Service]. When using a USB connection to download data to your PC, select [Synchronize with Smartphone].

#### Time Zone

Specify the region where the device will be used.

#### Daylight Savings Time

When turning on this option for the device that automatically sends data to the "T&D WebStorage Service", you need to configure the Daylight Saving Time Display setting on the "T&D WebStorage Service" as well. For details, see [Via Cloud: Viewing Data in a Browser] - [Daylight Saving Time Display] on the back of this manual.

#### Max/Min Auto Reset

The TR7A Series has a function to automatically reset the maximum and minimum values on the LCD at specific time(s) of the day. If necessary, enable and change the reset times.

Default Setting: ON / 0:00 every day

### Applying Settings

- Tap the [Apply] button in each setting to send the settings information to the logger. The settings can also be applied by starting a recording from the Rec Settings.
  - Upon the start of a new recording session all stored data will be deleted from the device.
- Place the device in the measurement location.
  - Make sure to check the connection status. Refer to [Checking Connection Status (for Auto-upload)] on the bottom right of the back page.

### Output Options for Recorded Data (Save/Share/Report)

By tapping [Bluetooth] at the bottom of the Device Info screen, the app will download and display data in the Graph/Device Settings screen.

The downloaded data can then be saved on the mobile device, shared via email or other methods, sent to the "T&D WebStorage Service", and output as a PDF report.

- Tap the [Save] icon at the upper right of the graph to save graph data.
- Go back to the Device Info screen and tap [Files] at the bottom of the screen.
- Select a file from the file list and tap on the desired icon at the bottom of the screen.

\* By tapping [WebStorage] on the Device Info screen, you can download the recorded data from the "T&D WebStorage Service" to your mobile device for storage and sharing.

For details about the operations of "T&D Thermo", refer to [tandd.com/support/webhelp/tdthermo/](http://tandd.com/support/webhelp/tdthermo/)



# Via USB: Device Settings using Windows Software

## Software Installation

- Download "TR7 for Windows" from the T&D Website and install it to your PC. [tandd.com/software/tr7win.html](http://tandd.com/software/tr7win.html)
- Connect the TR7A Series device via USB to your computer.
  - \* "TR7 for Windows" will open automatically. (If not, please open it manually from the Windows Start Menu or Start Screen.)

## Clock Settings

Open [Clock Settings] from the [Settings] menu, and make necessary settings related to the time.



### Auto-Adjustment

Select [Auto-Adjustment] when using the Auto-upload to automatically send the recorded data to the "T&D WebStorage Service", or select [Set to Computer Clock] when using a USB connection to download data to your PC.

### Time Zone

Specify the region where the device will be used.

\* When turning on the Daylight Saving Time option for the device that automatically sends data to the T&D WebStorage Service, you must also go to T&D WebStorage Service - [Data View] - [Clock Display Settings] and set the [Display using Daylight Savings Time info?] to "Yes".

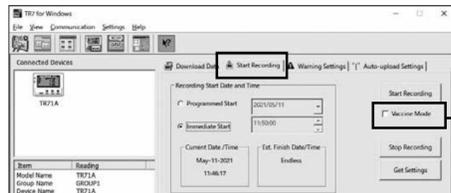
### Max/Min Auto Reset

The TR7A Series has a function to automatically reset the maximum and minimum values on the LCD at specific time(s) of the day. If necessary, change the auto-reset setting, reset time and frequency.

Default Setting: ON / 0:00 every day

## Recording Settings

Click the [Start Recording] tab and make necessary settings for recording.



Check the box to use the TR71A/TR75A in vaccine mode.

### Items that can be set or changed in [Start Recording] tab:

Recording Start Method (Programmed Start or Immediate Start), Recording Interval, Recording Mode, Sensor Type (TR75A only), Group Name, Device Name, Channel Name

### Recording Interval in Vaccine Mode

- In the vaccine mode, warning judgments are made on the recorded value at the interval set for recording on the logger. To quickly detect the out-of-limit condition and sensor error, set a shorter recording interval.
- 60-min interval is not available.

### References:

#### Recording Intervals & Estimated Maximum Recording Times

| Recording Interval | 1 sec.        | 30 sec.       | 5 min          | 10 min (default) | 15 min       | 60 min          |
|--------------------|---------------|---------------|----------------|------------------|--------------|-----------------|
| Estimated Time     | About 8 hours | About 10 days | About 100 days | About 200 days   | About 1 year | About 3.5 years |

#### Recording Intervals & Corresponding Maximum Length (in days) of Data Stored in T&D WebStorage Service

| Recording Interval       | 1 sec. | 2 sec. | 5 sec. | 10 sec. | 20 sec. | 30 sec. | 1 min.  | 2 min.  | 5 min.  | 10 min.  | 15 min.  | 20 min.  | 30 min.  | 1 hr.    |
|--------------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|
| Maximum Length (in days) | 1 day  | 2 days | 3 days | 6 days  | 9 days  | 12 days | 20 days | 40 days | 80 days | 200 days | 450 days | 450 days | 450 days | 450 days |

## Warning Settings

Click the [Warning Settings] tab and make the necessary settings. By making warning settings, you will see the **ALM** blinking on the LCD screen of the logger when a deviation such as temperature excursion is detected. You can also receive a warning email by specifying "T&D WebStorage Service" as the data destination and

making wireless LAN settings in the [Auto-Upload Settings]. Warning mail recipients can be set in the "T&D WebStorage Service" - [Account] menu.

### Items that can be set or changed in [Warning Settings] tab:

Lower Limit, Upper Limit, Sensor Warning, Judgment Time, Battery Warning

- By changing the temperature unit to Fahrenheit in [Settings] - [Temperature Unit Settings] menu, the upper and lower limits can be set in Fahrenheit here.



### Warning Judgment Time in Vaccine Mode

- In the vaccine mode, warning judgments are made on the recorded value at the interval set for recording on the logger. (Warning Judgment Time is fixed to 0 sec. and cannot be changed.)

## Auto-Upload Settings

To automatically send the recorded data to "T&D WebStorage Service" or to use the warning mail function, configure the Wireless LAN Settings in the [Auto-upload Settings] tab.



### Items that can be set or changed in [Auto-upload Settings] tab:

DHCP, Wireless LAN Settings, Proxy Server, Upload Interval, Data Destination, Clock Settings

### Ref: Auto-Upload Intervals & Corresponding Estimated Battery Life

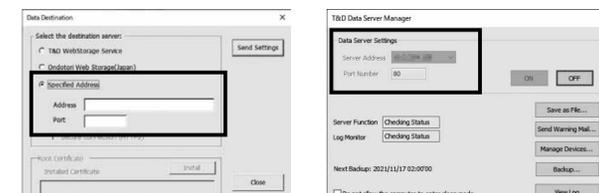
In general, the shorter the upload interval, the shorter the battery life.

| Upload Interval | 1 min         | 10 min         | 1 hr         | 12hrs or more   |
|-----------------|---------------|----------------|--------------|-----------------|
| Battery Life    | About 10 days | About 2 months | About 1 year | About 15 months |

- All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life.
- When Auto-upload is used frequently on TR71A, the measurement of the internal sensor may rise by around 0.3°C.

### Data destination other than "T&D WebStorage Service":

By setting the computer on which "T&D Data Server" is installed as the destination server, you can automatically save the recorded data in the server's database. Monitoring of current readings and warnings via a web browser is also possible.



\* Set the same IP address and port number for the data destination of "TR7 for Windows" and the server address of "T&D Data Server".

\* For details about operations of "T&D Data Server", please refer to the software's Help.

## Applying Settings

- Click the [Send Settings] button on the [Warning Settings] tab or the [Auto-upload Settings] tab to send the settings to the device. The settings can also be applied by clicking the [Start Recording] button in the [Start Recording] tab.

\* Upon the start of a new recording session all stored data will be deleted from the device.  
 \* When using auto-upload to the cloud, sending the setting changes will not be actually applied on the "T&D WebStorage Service" screen until communication occurs between the TR7A Series and "T&D WebStorage Service". By pressing the <REC/STOP> button on the logger, however, settings can be applied immediately.

- Place the device in the measurement location.

\* Make sure to check the connection status. Refer to [Checking Connection Status (for Auto-upload)] at the end of this page.

## Downloading Data and Viewing in Graph

By connecting the TR7A Series device to a PC via USB, it is possible to download recorded data. Data downloaded can then be viewed in a graph for analysis by using the software "T&D Graph".

- Download "T&D Graph" from the T&D Website and install it to your PC.

[tandd.com/software/td-graph.html](http://tandd.com/software/td-graph.html)

- Connect the TR7A Series via USB to your computer.

- Open "TR7 for Windows", click on the [Download Data] tab and proceed with the download.

Upon completion of download, the summary (such as total time out of range) will be displayed.

[Detailed Settings] allow you to :

- View and change the [Graph Display] and [File Name] settings
  - Select whether to create a report (PDF/CSV) with daily maximum and minimum values and total time out of threshold, etc.
- If you check the [After downloading, automatically display graph] option in the [Download Data] tab - [Detailed Settings], "T&D Graph" will automatically open and display the graph after the download is complete.
  - For details about operations please see the [Help] menu in the "T&D Graph".

For details about the operations of "TR7 for Windows", refer to [cdn.tandd.co.jp/glb/html\\_help/tr7win-help-eng/](http://cdn.tandd.co.jp/glb/html_help/tr7win-help-eng/)



# Button Operations on the Device

|  |   |
|--|---|
| <b>Power ON/OFF</b>  | Press-and-hold*1 the <PWR> button.  |
| <b>Start*2 / Stop Recording</b>  | Press-and-hold the <REC/STOP> button.   |
| <b>Check Recording Interval / Upload Interval</b>                      | Press the <INTERVAL> button. With each pressing of the button, the display will switch between the recording interval (Rec.) and the upload interval (Upload).  |
| <b>Recording Interval Setting</b>                                      | Press the <INTERVAL> button. While <b>Rec.</b> is displayed, press-and-hold*2 the <INTERVAL> button until the interval time flashes. Press <INTERVAL> again to select the interval time.  |
| <b>Upload Interval Setting</b>   | Press the <INTERVAL> button twice. While <b>Upload</b> is displayed, press-and-hold the <INTERVAL> button until the interval time flashes. Press <INTERVAL> again to select the interval time.  |
| <b>Transmit Data and Settings to "T&amp;D WebStorage Service"</b>      | Press the <REC/STOP> button.  |
| <b>Cancel Communication</b>  | Press the <PWR> button.   |
| <b>Switch Display Items and Pattern (Fixed or Alternating Display)</b> | Press the <DISPLAY> button. Each pressing of the button will change the display items and pattern (fixed or alternating display) as shown below: Ch1/Ch2 current values (fixed) → Ch1 MAX/MIN values (fixed) → Ch2 MAX/MIN values (fixed) → alternating display |
| <b>TR75A Sensor Type</b>   | Press-and-hold the <DISPLAY> button.  |
| <b>Clear Max/Min (and ALM)</b>   | While Max/Min (and ALM) are displayed (in fixed display), press-and-hold the <DISPLAY> button.  |
| <b>Wireless LAN Settings using WPS</b>                                 | Press-and-hold <PWR> and <DISPLAY> together.  |

- \*1."Press-and-hold" means to hold the button down for about two seconds. During recording, the power cannot be turned off.
- \*2.Upon the start of recording, all previously recorded data in the unit will be deleted.
- \*3.Recording Interval setting cannot be changed while a recording session is in progress.

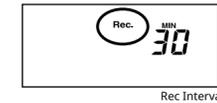
Before performing button operations, please read the attached document [Please Read First] and install the batteries and sensor(s) in the logger, and make sure the LCD is displaying measurements.

## Recording Interval Setting

Follow the steps below to change the recording interval using the buttons on the device. The factory default setting is 10 minutes.

- Upon the start of recording, all previously recorded data in the logger will be deleted.
- Note: When **REC** is ON (recording in progress), the logger cannot be turned off, nor can the recording interval be changed.

- When **REC** is ON, press-and-hold the <REC/STOP> button until it turns OFF (recording stops).
- Press the <INTERVAL> button.
- While **Rec.** is displayed, press-and-hold the <INTERVAL> button until the interval time flashes.



- Press the <INTERVAL> button. Recording Intervals (**Rec.**) 1, 2, 5, 10, 15, 20, 30 SEC / 1, 2, 5, 10, 15, 20, 30, 60 MIN

- When the desired recording interval appears, stop pressing the button. Within a few seconds, the display will return to measurement mode to indicate the upload interval is set.



- Press-and-hold the <REC/STOP> button. **REC** will turn on and recording will start.

## Auto-upload Interval Setting

Follow the steps below to change the auto-upload interval using the buttons on the

# Via Cloud: Viewing Data in a Browser

You can access "T&D WebStorage Service" to view the uploaded data and check and/or change the various settings.

### Items that can be set or changed in individual Device Settings:

Device Name, Group Name, Recording Interval, Recording Mode, Auto-upload Interval, Time Difference, Daylight Saving Time, Temperature Unit, Channel Name, Sensor Type (TR75A only), Upper Limit, Lower Limit, Sensor Warning, Judgment Time, Battery Warning

- Note that the setting changes will not be actually applied until communication occurs between the logger and "T&D WebStorage Service". By pressing the <REC/STOP> button on the logger, however, settings can be applied immediately.

### Daylight Saving Time Display

When the Daylight Saving Time option for a device that automatically sends data to the "T&D WebStorage Service" is turned on, you must also go to [Data View] - [Clock Display Settings] and set the [Display using Daylight Savings Time info?] to "Yes".

device. The factory default setting is OFF (no auto-upload).

- Press the <INTERVAL> button twice to display the auto-upload interval.
- While **Upload** is displayed, press-and-hold the <INTERVAL> button until the interval time flashes.
- Press <INTERVAL> again to select the interval time. Each press changes the interval as follows: Auto-upload Intervals (**Upload**): OFF / 1, 2, 5, 10, 15, 20, 30 MIN / 1, 2, 3, 4, 6, 12, 24 HOUR
- The interval time will stop flashing and the display will return to the normal measurement mode, confirming that it is set.



## Wireless LAN Connection using WPS

This function is not available if your wireless LAN access point does not support WPS or the security setting is other than WPA/WPA2 PSK.

### What is the WPS?

WPS (Wi-Fi Protected Setup) is a feature that makes it easy to set up a wireless LAN connection. It allows you to set up wireless LAN communication between the TR7A Series and a wireless access point (router) that supports WPS with just a push of a button on the logger. Button name of the WPS may differ depending on the router.

For details about operating WPS on the wireless LAN access point device, please check the User's Manual that came with the unit.

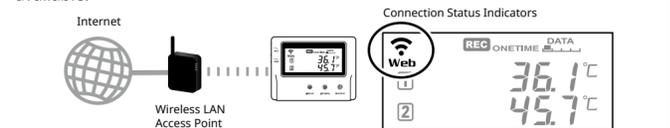
- Press the <PWR> and <DISPLAY> buttons together until **WPS** appears on the LCD screen.
- Set your wireless LAN access point to [WPS] mode.

\* For details about Wireless LAN Access Point settings, refer to the user manual for that access point.

- When the wireless LAN connection is successfully established, the **Web** mark on the LCD display will turn ON.

## Checking Connection Status (for Auto-upload)

Place the logger in the desired measurement location where Internet access is available.



Press the <REC/STOP> button on the logger to immediately send the recorded data to "T&D WebStorage Service" without waiting for the next transmission. If the transmission is successful, **Web** and **Web** will remain ON after **COM** turns OFF.

**Web** is OFF or blinking: Unable to connect to the wireless network. Try adjusting the position of the device or its distance from the access point, or check the access point settings. (See [Device Settings using Windows Software] - [Auto-Upload Settings])

**Web** is blinking: Internet connection failed. Please check the access point's internet connection.

## For More Information and Support

Please contact the distributor from which you purchased the product. [tandd.com/purchasing/](http://tandd.com/purchasing/)

