



Web Data Recorder

WDR-3



*This Introductory Guide explains in a simple manner the basic operations and set up for WDR-3. For a more detailed explanation, see the User's Guide on the provided CD-ROM.

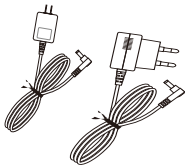
*This data logger has been designed to be used solely with a network connection. It does not include any RS-232 or USB communication interface. To make use of this product you must connect it to a network.

Package Contents

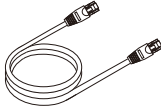
Besides the WDR-3, the following items are included in the package:



Software CD-ROM x 1



AC Adaptor
AD-0605 or AD-05C1 x 1



LAN Cable LN-20Wx 1



Introductory Manual
(Warranty)x 1

Compliance Information

Radio, EMC and Safety Regulations

This device complies with Part 15 of the Federal Communications Commission (FCC) rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

⚠ Provisions for Free Repair

The warranty is contained in the User's Manual (English) included in the package. When seeking repair, please make sure to fill in all required fields and present it.

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 afterpurchase.
 4. Failure to submit the Warranty or failure to fill in all items required in the Warranty.
5. The Warranty cannot be reissued.

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

T&D Corporation

Shimadachi 817-1, Matsumoto, Nagano 390-0852 JAPAN
Tel: +81-263-40-0131 Fax: +81-263-40-3152
E-mail: support@tandd.com
Homepage: <http://www.tandd.com/>

Safety Precautions and Instructions *Please carefully observe the following safety measures when using our product.

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 make sure to carefully read, understand and follow the safety rules and precautions for our products as outlined below.

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. Inside or near the symbol will appear another symbol giving details. (EX: ⚠ Be careful of electrocution)
	Denotes a forbidden action. Inside or near the symbol will appear another symbol giving details. (EX: ⚡ Do not use in wet areas)
	Denotes an action that you must take. Inside or near the symbol will appear another symbol giving details. (EX: 🔌 Unplug power plug from outlet)

⚠ Warning

 Do not take apart. Do not take apart, repair or modify the main unit. This may cause fire or electrocution.	 Strictly Follow If any smoke or strange smells are emitted from the unit, immediately pull out the AC adaptor and cease using it. Continued use may cause fire or electrocution.	 Strictly Follow Store main units, AC adaptors, and LAN cables out of the reach of children. Touching them may result in injury and it is dangerous if they are dropped.
 Do not use with wet hands. Do not unplug the AC adaptor with wet hands. This may cause electrocution.	 Strictly Follow Do not drop the unit, or expose the unit to a strong impact. If that happens to the unit, immediately remove the batteries and stop using. Continued use may cause fire or electrocution.	 Strictly Follow When installing and using this product, make sure to follow all warnings and directions from your computer manufacturer.
 Be careful of igniting fire. If water or a foreign body enters into this unit, immediately unplug the AC adaptor and stop using. Continued use may cause fire or electrocution.	 Strictly Follow Make sure to periodically remove dust and dirt from the AC adaptor plug. If dust is allowed to accumulate on the plug, moisture may cause poor insulation and result in fire.	 Do not use in wet areas. Do not use this unit in wet or humid places, such as a bathroom. It may cause a fire or other trouble including malfunction.

⚠ Caution

 Strictly Follow This unit is not waterproof. If the unit gets dirty, wipe it with a clean cloth dipped in alcohol.	 Strictly Follow 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 and the humidity is between 20% and 80% RH (no condensation). When using a Wireless LAN card, please follow all instructions included with the card.	 FORBIDDEN Do not use or store the unit in places such as listed below: Doing so may cause electrocution, fire and/or other adverse effects to the device and/or your computer. <ul style="list-style-type: none">- Areas exposed to direct sunlight This will cause the inside of the device to become overheated and may cause fire, deformation, and/or other damage including malfunction.- Areas prone to strong magnetic fields This may cause damage including malfunction.- Areas exposed to water leakage This may cause electrocution or other damage including malfunction.- Areas exposed to excessive vibration This may cause injury, malfunction, damage or loss of proper electrical contact.- Areas that are not flat or level This may cause the unit to fall and result in injury and/or damage.- Areas near fire or exposed to excessive heat This may cause damage including malfunction and deformation.- Areas prone to smoke, dust and dirt This may cause damage including malfunction.
 Strictly Follow We are not responsible for any damage, malfunction or trouble, whether direct or indirect, caused by the use of our product. Please be fully aware of this before using our product.	 Strictly Follow Make sure that the LAN cable and AC adaptor are inserted fully, so as not to cause an improper connection.	
 Strictly Follow 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.	 Strictly Follow Also, when unplugging the LAN cable from the main unit, do not pull the cord, but hold the connector to disconnect.	
 FORBIDDEN Harmful gases or chemicals may cause corrosion and/or other danger to the unit. Also, by coming in contact with hazardous substances, harm may occur to the people handling the unit. Therefore, do not use in any environment that is exposed to chemicals and harmful gases.	 Strictly Follow 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.	
 FORBIDDEN Do not put anything on top of the AC adaptor. This may cause overheating.		

1. Getting the WDR-3 Ready to Use

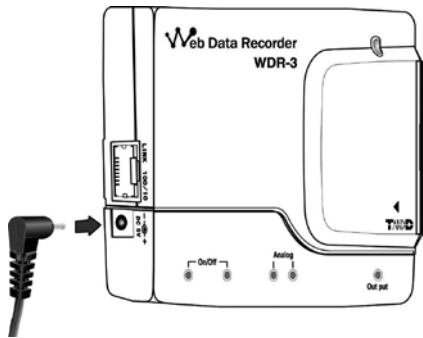
1.Connecting the AC Adaptor

Please make sure to use the proper AC adaptor for your local voltage. The AD-0605 AC adaptor has an input range of 100 to 120V, the AD-051C AC adaptor has a range of 100 to 240V.

* To ensure a proper connection make sure that the plug is completely inserted.

NOTE :

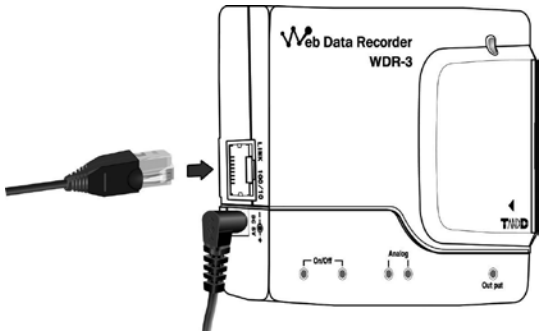
- Do not use an AC adaptor other than the one that is supplied with the product. Doing so may cause fire or other trouble.
- Insert the AC adaptor plug into the socket. Inserting the plug into a socket with different voltage may cause fire or other trouble.
- Do not insert or pull out the AC adaptor plug with wet hands or if there are water drops on the plug; it may cause electrocution.



2.Connecting a LAN Cable

- When first making settings, please connect to a computer that is connected to the a local network.

* To ensure a proper connection make sure that the plug is completely inserted.



* For how to directly connect to a computer or for how to connect to use a Wireless LAN card, see [Connecting to a Network] in the User's Guide on the CD-ROM.

3.Connecting the Signal Wire

1. Prepare a $\phi 0.5 \sim 0.9$ single type wire and remove the covering to about 10mm from the tip.

⚠Caution

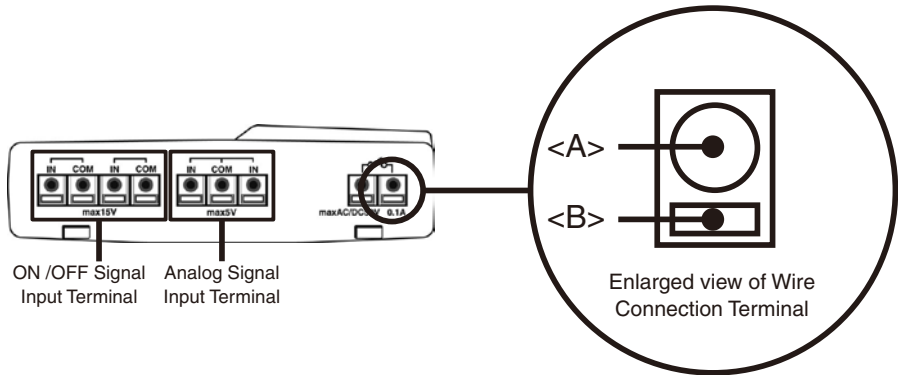
Do not connect to a voltage higher than the allowed input (measurement) voltage.

- The allowed input (measurement) voltage for an analog input signal is 0 ~ +5V (resolution of 4.88mV).
- The allowed input (measurement) voltage for an ON /OFF input signal is 0 ~ 15V (both contact input and open collector input are possible).

2. Using a screwdriver or other such tool, while pressing down on the terminal button at the back of the unit, insert the wire into the hole <A>.

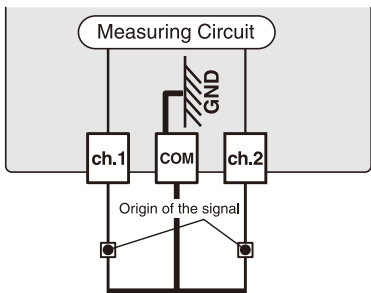
⚠Caution

Do not remove the input cable from the logger and leave it while still connected to the origin of the signal. There is a chance that it will come into contact with another signal and cause a short.



⚠Caution

The Analog Signal Input Terminal uses a common ground for both channels, so when connecting input cables be sure to connect the ground for each channel to the same point.



Removing an Input Signal Wire

If you wish to remove an input signal wire, press down on the button with a screwdriver and pull out the wire.

⚠Caution

Please be careful when pulling out the wire.

2. Installing the Software

To properly use WDR-3, the following operational environment is necessary.

OS	Microsoft® Windows® 7 32/64bit English Microsoft® Windows Vista® 32bit English Microsoft® Windows® XP 32bit (SP2 or above)* English Microsoft® Windows® 2000 English
PC / CPU	A Stable Windows Operating Environment LAN, TCP/IP Communication Possible
Memory Capacity	Enough memory to stably operate Windows
Disc Space	More than 20MB free space (More free space is necessary for data)
Monitor	VGA (SVGA higher than 640×480 recommended) more than 256 colors

- Is Windows® operating properly?
If Windows is not operating properly, Network Settings Utility may not be installed correctly or it may not operate properly.
- Please quit all other applications.
If other programs are open, please close and quit all of them, making sure to quit all Quick Start programs such as a virus checker.
- To install the Network Settings Utility, it is necessary to have Administrator Rights for the computer into which it will be installed.

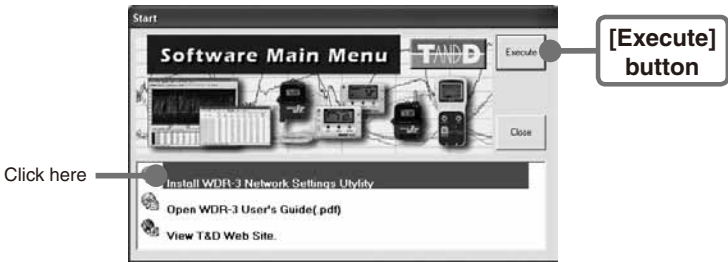
1.Open Windows®.

2.Place the accompanying CD-ROM into your CD-ROM drive.

In a few seconds, the [Install Program] window will appear.

* If that window does not automatically open, please open it by double clicking the CD-ROM icon in [My Computer] on your desktop.

Also, if the file appears in the CD-ROM folder, click on the "start.exe" icon.



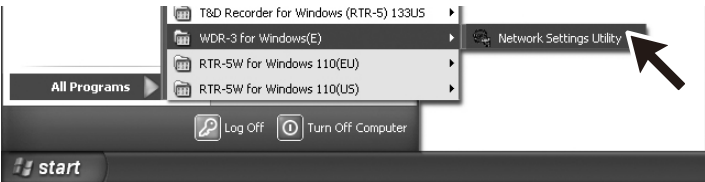
3.Select [Install Network Settings Utility] and click the [Execute] button to start the installation.

4.Continue the installation by following the directions as they appear.

5.After installation has been completed, Network Settings Utility will be registered in the Windows [Start] Menu.

3. Using the Network Settings Utility

To open the Network Settings Utility, go to the Windows [Start] Menu and under Programs, click on [Network Settings Utility].



* For more detailed information about using Network Settings Utility, see the User's Guide on the provided CD-ROM or the software Help Menu.

Network Settings Utility

The Network Settings Utility contains the following functions:

⚠Caution

If you open [Network Settings Utility] on multiple computers in the same network, it may not work properly. Please open it from only one computer at a time in the same network (same broadcast domain).

- [Network Initialization] Tab
After purchasing a WDR-3 unit, the first step is to make all Network Settings for connecting to a network.
- [Detailed Network Settings] Tab
The reception of WDR-3 settings and more detailed network settings can be made here.

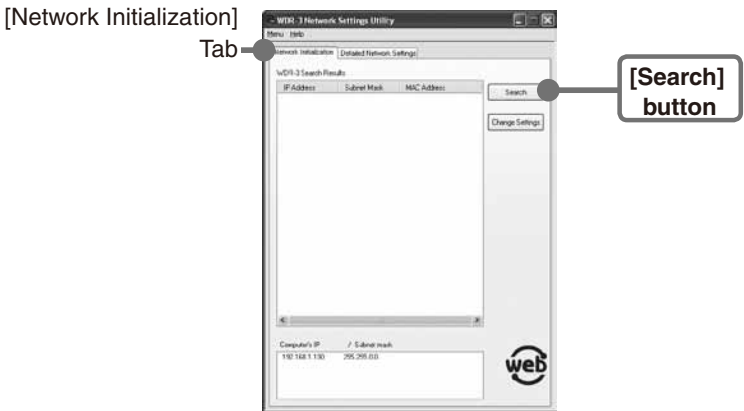
4. Initialization Settings

⚠Caution

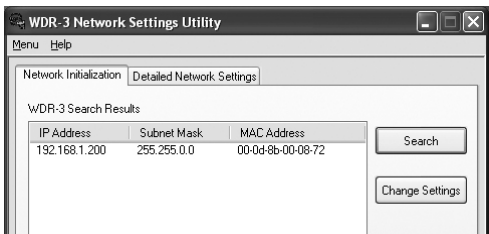
- Please note, that upon purchase, all WDR-3 units are set with the same IP address. To make IP address changes, connect one unit at a time and carry out the changes. Do not connect more than one WDR-3 unit with the same address to the network at the same time.
- This explanation is about how to connect to a local network and is not about how to connect to the Internet. If you wish to use by connecting to the Internet, see [Connecting to the Internet] in the User's Guide on the provided CD-ROM.

1.In [Network Settings Utility], click on the [Initialization Settings] Tab and then click on the [Search] button.

- After clicking, the search results will be shown in about 5 seconds.



* The factory default settings for WDR-3 are as follows: IP Address: "192.168.1.200", Subnet Mask: "255.255.0.0".



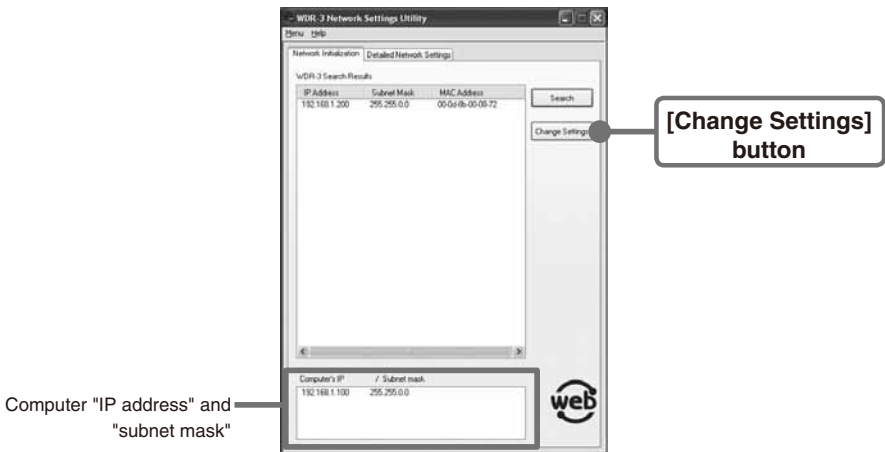
If no units are detected

- Check the connection between the computer and the WDR-3.
- Check the hub power switch and the network cable type.
- In some network environments, it may be necessary to make changes to the IP address and subnet mask at the computer side in order to carry out a search. To find out more details about checking and changing a computer's network settings, see [Network Initialization Settings] in the User's Guide on the provided CD-ROM.

2.Making Changes to the IP Address and Subnet Mask

1. From the displayed list, select the WDR-3 to which you wish to make settings by either double clicking on that address or select and click on the [Change Settings] button.

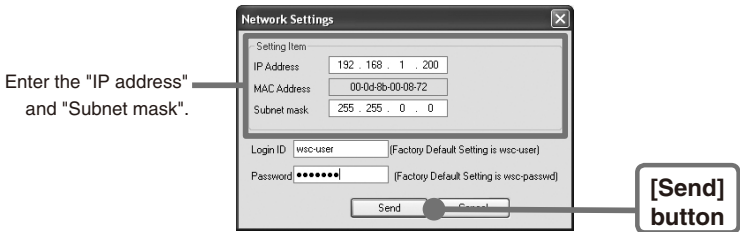
The [Network Settings] window will then appear.



2. Enter an IP address and subnet mask that is appropriate for your network.

For example, if your computer IP address is "192.168.1.1", and the subnet mask is "255.255.255.0", then set the RTR-5W IP address as "192.168.1.10".

- * If you are unsure, ask your company network administrator.



3. After entering the above, next, enter the login ID and password.

* The WDR-3 factory default login ID is "wsc-user" and the password is "wsc-passwd". Make any necessary changes to the login ID and password at [Detailed Network Settings].

4. After checking for entry errors, click the [Send] button. After transmission has been completed a message will appear.

Click the [OK] button to complete the settings.

* After settings are completed the WDR-3 will automatically restart. During the restarting process, a search cannot be performed, even if you click the [Search] button. It should take about 30 seconds.

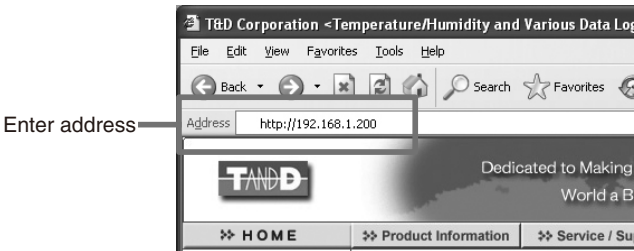
5.Opening the WDR-3 Web Viewer

1.Open Internet Explorer.



2.In the address, enter the IP address that was entered in the [Network Settings Utility] in the form of a URL that begins with http://...and then press the <Enter> key. The WDR-3 Web Viewer will appear.

After this, anytime you wish to view an already initialized WDR-3, enter the address as above, and press the <Enter> key to open the WDR-3 Web Viewer.

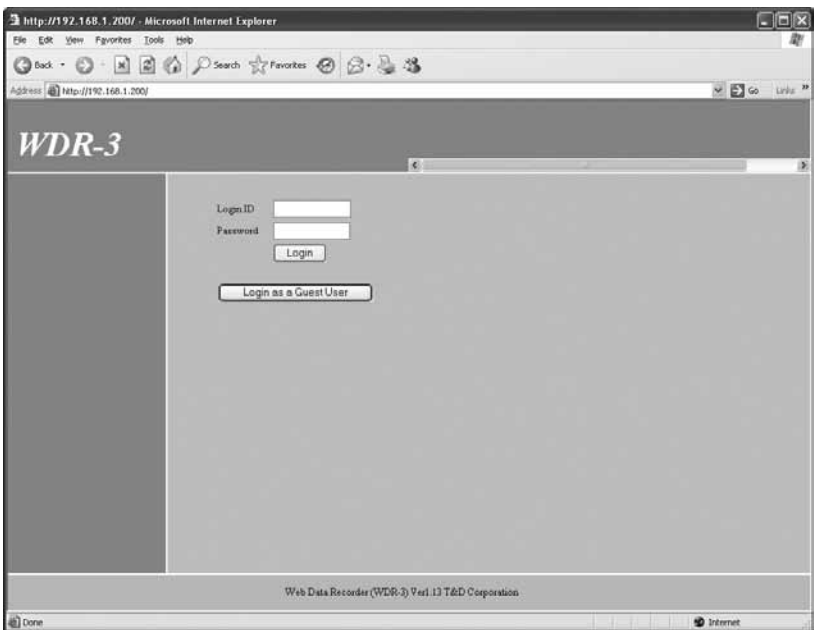


If the Viewer does not appear

Check the IP address and subnet mask, and repeat the steps in [4. Initialization Settings].

About the WDR-3 Web Viewer

There are two ways to log into the WDR-3 Web Viewer. One is to login in using the Administrator Login ID and Password, the other is to login using the User Login ID and Password.



When Logging in as the Administrator

Make all environmental settings for the operation of WDR-3.

The Login ID and Password are the same as those for the [Network Settings Utility]. If, in [Detailed Network Settings] under [Network Settings Utility] changes were made to the Login ID and Password, make sure to enter the new ID and Password.

If no changes were made, the Login ID is: "wsc-user" and the Password is: "wsc-passwd".

- Login Settings

Make Login and Password settings, as well as access permission settings for using without a Login ID.

- LAN Settings

Without opening the Network Settings Utility, settings can be made for Wireless LAN, IP address, Subnet Mask, and DNS server address.

- Mail Settings

Mail settings can be made to enable the sending of warning report mail upon the occurrence of a warning or for sending mail containing measurement readings at a set period of time.

- Clock Settings

If the clock settings for the WDR-3 are set incorrectly, the time will be incorrect for recorded data, warning occurrences and all other functions.

Please make sure to set correctly before using.

When Logging in as a User

Make operational settings for using WDR-3.
The initial settings for both the Login ID and the Password are "user".

Monitor Current Readings

The WDR-3 communicates with the external device and the most recent measurement(s) are displayed.
* If you are using ON / OFF input (contact input), the number of pulses during one minute is displayed.

Monitor Current Readings

Channel Name	Warning Info	Measurement Reading		Unit
		Unconverted	Converted Value	
Analog Input 1	Download	5	0.005	,-
Analog Input 2	Download	0	0.000	,-
Contact Input 1	Download	0	0.000	Pulse
Contact Input 2	Download	0	0.000	Pulse
Contact Input 1(Polarity)		OFF		
Contact Input 2(Polarity)		OFF		

Refresh Interval: 600 (sec) Change

Time Period for Pulse Number: 1 (min) Change

Downloading

Download recorded data and view in graph form.

Download

Channel Name	Download	Graph
Analog Input 1	Download	Graph
Analog Input 2	Download	Graph
Contact Input 1	Download	Graph
Contact Input 2	Download	Graph

View Settings

Name and Scale

View the Channel Name, Scale and Unit of Measurement settings for the Device Name (WDR-3).

View Settings->Name & Scale Settings Info

Unit Type: WDR-3

Input Terminal Name	Channel Name	Physical Quantity		Unit
		when 0V	when 5V	
Analog Input 1	Analog Input 1	Lower Limit	0 Upper Limit	5 ,-
Analog Input 2	Analog Input 2	Lower Limit	0 Upper Limit	5 ,-

Input Terminal Name	Channel Name	Physical Quantity		Unit
		when 0 Pulse	per 1 pulse	
Contact Input 1	Contact Input 1	Lower Limit	0 Upper Limit	1 Pulse
Contact Input 2	Contact Input 2	Lower Limit	0 Upper Limit	1 Pulse

Data Management

View various mail settings including: transmission interval settings, data range settings and recipient address settings.

View Settings->Data Management Settings Info

Send Recorded Data	Yes
Send Interval	Send to every day at 0:00
Attached Data	All Data
Address1	ggg@hhh.kkk.jp
Address2	mmmm@nnn.ooo.jp

Recording

View various recording settings including: channel name for channel which is recording, the set recording method and recording interval.

View Settings->Recording Settings Info

Recording Interval: 60min

Channel Name	Measuring Mode
Analog Input 1	Average Value
Analog Input 2	Average Value
Contact Input 1	Pulse
Contact Input 2	Pulse

Warning and Message Recipient

View the contents of the warning settings.

View Settings->Warning & Message Recipient Settings Info

Channel Name	Monitoring	Monitoring Time	Monitoring Mode		Mail Send	Contact Output 1	LED Output
Analog Input 1	Yes	1min	Upper Limit	100 Lower Limit	1	Yes	1 sec
Analog Input 2	No						
Contact Input 1	No						
Contact Input 2	No						

Recipient Mail Address(Common)

Mail Address1	ggg@hhh.kkk.jp
Mail Address2	mmmm@nnn.ooo.jp

Setting Changes

Name and Scale

Make and change various device (WDR-3) settings such as Channel Name, Scale and Unit of Measurement.

Change Settings->Name & Scale Conversion

Unit Name: WDR-3

Analog Input 1

Channel Name: Analog Input 1

Physical Quantity when 0V: 0

Physical Quantity when 5V: 5

Unit: mV

Analog Input 2

Channel Name: Analog Input 2

Physical Quantity when 0V: 0

Physical Quantity when 5V: 5

Unit: mV

Contact Input 1

Channel Name: Contact Input 1

Physical Quantity when 0 pulse: 0

Physical Quantity per 1 pulse: 1

Unit: Pulse

Contact Input 2

Channel Name: Contact Input 2

Physical Quantity when 0 pulse: 0

Physical Quantity per 1 pulse: 1

Unit: Pulse

Change Cancel

Data Management

Make settings to have the WDR-3 send recorded data via mail to a specified address.
Make various mail settings including: transmission interval settings, data range settings and recipient address settings.

Change Settings->Data Management

Send Recorded Data Settings

Sending Mail: ☐ No ☐ Yes

Send Interval: ☐ Send at Fixed Time Every Day Every day at 0 00 ☐ Send at Fixed Interval Every 1 hour(s)

Attached Data: ☐ All Data ☐ Latest Data
(If you have selected 'Polarity Change' for Contact Input 1 and 2 in 'Measuring Mode', then the attached data will automatically be 'All Data'.)

Mail Address 1: ggg@hhh.kkk.jp

Mail Address 2: mmmm@nnn.ooo.jp

Change Cancel

Recording

Make settings in order to carry out recording.

Change Settings->Recording Settings

Recording Interval: 60min

Measuring Mode

Analog Input 1: ☐ Instantaneous Value ☐ Average Value

Analog Input 2: ☐ Instantaneous Value ☐ Average Value

Contact Input 1: ☐ Pulse ☐ Polarity Change ON->OFF

Contact Input 2: ☐ Pulse ☐ Polarity Change ON->OFF

Start Recording Cancel

Warning Report Settings

Make settings in order to carry out warning moitoring.

Change Settings->Warning Settings

Analog Input 1: ☐ Monitor ☐ Do not Monitor

Warning Level

Analog Input Monitor Time: 1min

Upper Limit Value: 100 Lower Limit Value: 1

Contact Input Monitor Time: 1min

Pulse: Upper Limit Value: Lower Limit Value:

Continuity of Polarity: Polarity OFF

Enter the Upper and Lower Limits as Physical Quantities

Message Output Recipient

Contact Output: ☐ No ☐ Yes Output Time: 1 sec

LED Output: ☐ No ☐ Yes

Send Mail: ☐ No ☐ Yes

Mail Address1: ggg@hhh.kkk.jp

Mail Address2: mmmm@nnn.ooo.jp

Change Cancel

Customize the Window

Make settings to change the background color in the WDR-3 Web Viewer. Click the topic you wish to change.

Change Settings->Customize the Window

Color Settings

Upper Section of Window Background Color: ABA0C0

Menu Background Color: ABA0C0

Main Display Background Color: CCCCFF

Setting Display Background Color: CCCCFF

Select Menu Background Color: CCCCFF

Background Color Settings

Change Cancel Default Color