Part Names and LCD Display

Interpreting the Battery Mark
Checking the Power Supply Condition
Whether the battery mark is “blinking” or “on” indicates the source of power. This mark will not appear when batteries are not installed.

1. Battery Mark

2. Battery Power - OK

3. Battery Power - Getting Low

4. Battery Power - Too Low

When running on batteries only, it will take about 24 hours to go from Stage 1 to Stage 2 and another 24 hours from Stage 2 to Stage 3.

3. [Registation Window]

Step 4. Connect the RTR-576 to your computer via USB cable. The New Hardware Wizard will open immediately. Please run the New Hardware Wizard.

4. [Registation Window]

Step 5. Double click on the [RTR-576 Settings Utility] icon on your desktop. Follow the on-screen instructions to complete the registration process.

5. [Registation Window]

Step 6. Once registered, return to the RTR-576's Settings Utility. Click the "Connection" tab and select "USB Connection". Then click "OK" to confirm the connection.

6. [Registation Window]

Step 7. The RTR-576 is now connected to your computer and ready to use. You can now install the software that came with the Base Unit you are using.

7. [Registation Window]

Step 8. Once the installation is complete, you can connect the RTR-576 to your computer via USB cable. The New Hardware Wizard will open immediately. Please run the New Hardware Wizard.

8. [Registation Window]

Step 9. Double click on the [RTR-576 Settings Utility] icon on your desktop. Follow the on-screen instructions to complete the registration process.

9. [Registation Window]

Step 10. Once registered, return to the RTR-576's Settings Utility. Click the "Connection" tab and select "USB Connection". Then click "OK" to confirm the connection.

10. [Registation Window]

Step 11. The RTR-576 is now connected to your computer and ready to use. You can now install the software that came with the Base Unit you are using.

11. [Registation Window]

Step 12. Once the installation is complete, you can connect the RTR-576 to your computer via USB cable. The New Hardware Wizard will open immediately. Please run the New Hardware Wizard.

12. [Registation Window]

Step 13. Double click on the [RTR-576 Settings Utility] icon on your desktop. Follow the on-screen instructions to complete the registration process.

13. [Registation Window]

Step 14. Once registered, return to the RTR-576's Settings Utility. Click the "Connection" tab and select "USB Connection". Then click "OK" to confirm the connection.

14. [Registation Window]

Step 15. The RTR-576 is now connected to your computer and ready to use. You can now install the software that came with the Base Unit you are using.

15. [Registation Window]

Step 16. Once the installation is complete, you can connect the RTR-576 to your computer via USB cable. The New Hardware Wizard will open immediately. Please run the New Hardware Wizard.

16. [Registation Window]

Step 17. Double click on the [RTR-576 Settings Utility] icon on your desktop. Follow the on-screen instructions to complete the registration process.

17. [Registation Window]

Step 18. Once registered, return to the RTR-576's Settings Utility. Click the "Connection" tab and select "USB Connection". Then click "OK" to confirm the connection.

18. [Registation Window]

Step 19. The RTR-576 is now connected to your computer and ready to use. You can now install the software that came with the Base Unit you are using.

19. [Registation Window]

Step 20. Once the installation is complete, you can connect the RTR-576 to your computer via USB cable. The New Hardware Wizard will open immediately. Please run the New Hardware Wizard.

20. [Registation Window]

Step 21. Double click on the [RTR-576 Settings Utility] icon on your desktop. Follow the on-screen instructions to complete the registration process.

21. [Registation Window]

Step 22. Once registered, return to the RTR-576's Settings Utility. Click the "Connection" tab and select "USB Connection". Then click "OK" to confirm the connection.

22. [Registation Window]

Step 23. The RTR-576 is now connected to your computer and ready to use. You can now install the software that came with the Base Unit you are using.

23. [Registation Window]

Step 24. Once the installation is complete, you can connect the RTR-576 to your computer via USB cable. The New Hardware Wizard will open immediately. Please run the New Hardware Wizard.

24. [Registation Window]
Getting Ready to Use External Alarm Terminal

It is possible to connect an external device such as a siren to the RTR-576. Please make sure to check specific details of the external alarm terminal before purchasing or getting an external device ready for connection.

About the External Alarm Terminal (EXT ALM)

The connection between [A] and [B] decides whether Warning Output is enabled or disabled. If a warning condition occurs while Warning Output is enabled, a connection between [C] and [D] will be established and a warning will be output.

The Compatible Connector

The JST Connector PA041W-5 is compatible with the external alarm terminal. For questions concerning sales of the connector, please contact JST Mfg. Co., Ltd. http://www.jst.co.jp

Auto Calibration Function for CO2 Sensor

What is “Auto Calibration”?

Auto calibration is a function designed to enable long-term accurate measurements for the RTR-576 by gradually lowering the measured CO2 concentration over a 16-hour period, to the global average concentration (pre-industrial CO2 level of 400 ppm).

• The factory default setting for auto calibration is ON.

Turning ON and OFF Auto Calibration

Turn off auto calibration (*) when continuously measuring in an environment where the lowest CO2 concentration does not exceed 350 ppm for more than 16 hours. Failure to turn off the auto calibration function when the lowest CO2 concentration is less than 350 ppm may cause the sensor's accuracy and sensitivity to deteriorate even under normal operational conditions.

Cautions about using the Temperature-Humidity Sensors

• If the sensor is removed from the unit for an extended period of time, it should be stored in a cool, dry place.

Options

Temperature-Humidity Sensor: TMA-301

High Precision Temperature-Humidity Sensor: SIA-301

Specifications

| Product |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| RTR-500 | RTR-500 NW/500AW | RTR-500MBS-A | RTR-500DC |
| Temperature (°C) | 0 to 80 °C | 0 to 80 °C | 0 to 80 °C | 0 to 80 °C |
| Humidity (%RH) | 0 to 99 %RH* | 0 to 99 %RH* | 0 to 99 %RH* | 0 to 99 %RH* |
| Temperature ± 0.5°C, Humidity ± 2.5 %RH |
| Measurement Resolution: Minimum of 1 ppm |
| Response Time (90%): Approx. 1 min. |
| Measurement Range: 0 to 9,999 ppm |
| CO2 Sensor: (Internal) NDIR |
| Long-Term Stability: 5 years |
| Accuracy: ±(50 ppm + 5 % of reading) at 5,000 ppm or less (*) |
| Channels: CO2 Concentration 1ch |
| Temperature 1ch |
| Humidity 1ch |
| Communication: Serial Bus (RS-232C, RS-485) |
| Frequency Range: 869.7 to 870MHz |
| RF Power: 5mW |
| Specifications for wireless communication |
| Current when ON: less than 0.1A |
| Internal Pull-up: 3V 100 kΩ |
| Maximum Input Voltage: 30V |
| GND |
| Open Drain Output |
| Accessory: Plastic Case |
| Cable Length: 3 m |
| Material: Vinyl Coated Electrical Wire |
| Weight: Approx. 125 g |
| Accessories: Screw x 2 |

Manual Calibration

The manual calibration must be undertaken in an outside area. Also, make sure to stop recording on the RTR-576 first. We suggest that you download the recorded data before initial calibration.

1. Turn off the power of the RTR-576.

2. While holding down the [CALIBRATION] button, turn on the [POWER] switch. Keep holding the [DISPLAY] button until “CAL” appears in the LCD display.

3. Let go of the [DISPLAY] button.

4. Push the [CALIBRATION] button, and the upper row of the display will show “CAL” while the lower row will show the CO2 concentration.

5. Wait until the CO2 concentration becomes stable.

6. Once the measurement becomes stable, push the (RED/STOP) button.

7. Step away from the RTR-576, and wait until “CAL” turns to “SET” when the calibration process begins. In about 1 minute, calibration will be completed and the display will return to normal.

8. Check to make sure that the measured CO2 concentration values are close to 400 ppm.

Explanations of Symbols

Explanation of Warning Symbols

There are warning symbols which indicate whether Warning Output is enabled or disabled. If a warning condition occurs while Warning Output is enabled, a connection between [C] and [D] will be established and a warning will be output.

Explanation of Picture Symbols

- Temperature -25 to 70°C, Humidity 0 to 99 %RH*

- Channels Temperature 1ch Humidity 1ch Temperature 1ch Humidity 1ch

- Communication Serial Bus (RS-232C, RS-485)

- Frequency Range: 869.7 to 870MHz, RF Power: 5mW

- Specifications for wireless communication

- Current when ON: less than 0.1A

- Internal Pull-up: 3V 100 kΩ

- Maximum Input Voltage: 30V

- GND

- Open Drain Output

- Accessory: Plastic Case

- Cable Length: 3 m

- Material: Vinyl Coated Electrical Wire

- Weight: Approx. 125 g

- Accessories: Screw x 2

- Cable Length: 1.5 m

- Material: Vinyl Coated Electrical Wire

- Response Time (90%): Approx. 7 min.

- Temperature ± 0.5°C,

- Measurement Resolution: Minimum of 1 ppm

- Response Time (90%): Approx. 1 min.

- Temperature -25 to 70°C, Humidity 0 to 99 %RH*