REMOTE RAIN GAUGE

MODEL: RGR122 USER'S MANUAL

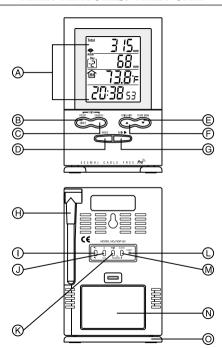
INTRODUCTION

Congratulations on your purchasing the RGR122 Remote Rain Guage. The rain guage is equipped with the following functions:

- Daily and total rainfall display
- Nine-day rainfall history
- Rainfall alarm
- Indoor temperature display
- Maximum and minimum temperatures
- Real-time calendar clock
- Daily alarm
- 300-feet transmission range

The RGR122 operates at 433MHz. No wire installation is required.

MAIN FEATURES: MAIN UNIT



A. FOUR-LINE DISPLAY

- For displaying the total rainfall, current rainfall or rainfall history, indoor temperature and calendar clock

B. RAIN RESET/SINCE BUTTON

- Displays the start day for total rainfall
- Presses and hold to clear the total and current rainfall
- Press and hold to reset the date stamp

C. RAIN SEARCH BUTTON

- Enforces a search for the rain guage sensor

D. MODE BUTTON

- Changes among the clock, calendar and daily alarm in normal mode
- Presses and hold to enter the setting mode

E. TEMPMEM BUTTON [▼]

- Changes among the maximum, minimum and current indoor temperatures in normal mode
- Presses and hold to clear the temperature memory in normal mode
- Decreases a value in setting mode

F. RAIN HIST BUTTON [▲]

- Displays the rainfall history in normal mode
- Increases a value in setting mode

G. RAIN ALARM [RAIN >] BUTTON

- Displays the rain alarm setting
- Presses and hold to enter the rain alarm setting mode

H. ANTENNA

- Receives radio signal from rain collector

I. [°C/°F] SWITCH

- Selects between degree Centigrade (°C) and Fahrenheit (°F)

J. [in/mm] SWITCH

- Selects between inch and millimeter

K. RAIN AL ON/OFF SWITCH

- Turns on or off the rainfall alarm

L. RESET BUTTON

- Returns all settings to their default values

M. CLOCK AL ON/OFF SWITCH

- Turns on or off the daily alarm

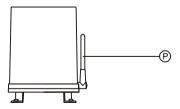
N. BATTERY COMPARTMENT

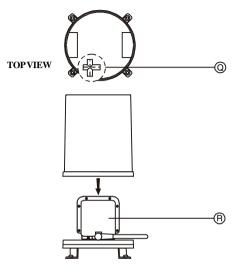
- Accommodates two UM-3 or AA-sized batteries

O. REMOVABLE TABLE STAND

- For securing the main unit on a flat surface

MAIN FEATURE: RAIN COLLECTOR





P. ANTENNA

- Transmits radio signal to main unit

Q. CROSS

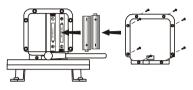
- Checks the leveling of the rain collector

R. BATTERY COMPARTMENT

- Accommodates two UM-3 or AA-sized batteries

INSTALLATION

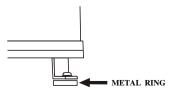
- Position the main unit and rain collector within effective range (300 feet).
- 2. a) Insert batteries into the rain collector.



- b) Mount the rain collector on a level surface
- c) Put drops of water on the cross at the base to check the leveling



d) Use the metal ring to adjust the leveling of the rain collector

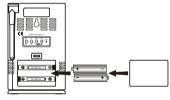


33

3. Remove the fiber tape from around the bucket assemblies.



4. Insert batteries into the main unit.



- 5. Press the [RESET] button on the main unit to initiate operation.
- Set the calendar and clock.
- Press [RAIN RESET / SINCE] to display the date stamp. Press and hold to reset the date stamp to current date.

LOW BATTERY WARNING

There are two low-battery indicators, one appears on the total rainfall display section and one on the indoor temperature display section. The former represents the batteries of the remote rain collector, the latter those of the main unit. Replace the batteries immediately when the respective indicator lights up.

Note: Every time the battery in the main unit is changed, repeat installation step 4 to 7 before use.

TOTAL RAINFALL

The total rainfall is displayed on the top line of the LCD display. Use the [IN/MM] switch to select between inch and millimeter. To display the commencing date of the record, press [RAIN RESET/SINCE] once. The date will appear on the bottom line of the display.

To clear the record, hold [RAIN RESET/SINCE] for two seconds. Note that this will also clear the current (Day 0) rainfall.

RAINFALL HISTORY

The rainfall history is displayed on the second line of the LCD display. The main unit can record up to nine days of rainfall.

Use [RAIN HIST / \blacktriangle] to display the record for a particular day. The day of the record will be displayed with a minus (-) sign. Zero (0) means the record is for the current day.

To clear the current day rainfall, hold [RAIN RESET/SINCE] for two seconds. Note that this will also clear the total rainfall record.

RAINFALL ALARM

To set the rainfall alarm,

- Press and hold [RAIN ALARM]. The alarm will be activated automatically. The rain alarm indicator will light up.
- Use [RAIN HIST / ▲] to increase the setting or [TEMP MEM / ▼] to decrease the setting.

The alarm will go off for one minute when the rainfall reaches the preset value and the rain alarm indicator will flash. A reminder beep will be emitted every minute. Once the rain alarm is on the indicator will not stop flashing unless [RAIN AL] switch is turned off or the rain alarm value is reset or normally pass to next day. To stop the alarm and reminder beep, press any button or reset the rainfall alarm value.

To deactivate the alarm all together, turn off the $[RAIN\,AL]\,$ switch.

DISCONNECTED SIGNALS

If without obvious reason the display for the main unit goes blank, press [RAIN SEARCH] to enforce an immediate search.

If that fails, check:

- The remote rain collector is still in place.
- The batteries of the main unit and rain collector are still good.
 Replace them if necessary.
- The transmission is within range and path is clear of obstacles and interference. Shorten the distance if necessary.

Then press [RAIN SEARCH] again.

INDOOR TEMPERATURE

The indoor temperature is displayed on the third line of the LCD display. Use the [°C/°F] switch to select between degree Centigrade and Fahrenheit.

Use [TEMP MEM] to display the maximum and minimum temperatures in record. The reading will go from maximum to minimum to current and back. To clear the memory, press and hold [TEMP MEM] for two seconds.

CALENDAR CLOCK

The calendar clock is displayed on the bottom line of the display. Use [MODE] to change among the clock, calendar and daily alarm.

To set the clock.

- 1. Press [MODE] to display the clock or calendar.
- 2. Press and hold [MODE] for two seconds.
- Use [RAIN HIST /▲] or [TEMP MEM /▼] to set the desired value.
- 4. Press [MODE] and repeat from Step 3 to complete all settings.
- 5. Press [MODE] to confirm.

To set the daily alarm,

- Press [MODE] to display the daily alarm. The daily alarm will be activated automatically. The daily alarm indicator will light up.
- 2. Press and hold [MODE] for two seconds.
- 3. Use [RAIN HIST /▲] or [TEMP MEM /▼] to set the desired value.
- $4. \ \ Press \ [MODE] \ and \ repeat \ from \ Step \ 3 \ to \ complete \ all \ settings.$

When active, the daily alarm will go off for one minute at the set time and the daily alarm indicator will flash. Press any button to stop the alarm. The alarm is still active and will go off at the set time the following day.

To deactivate the function all together, turn off the $\mbox{ [CLOCK AL]}$ switch.

THE RESET BUTTON

This button is used only when the unit is operating in an unfavorable way. Use a blunt stylus to hold down the button. All settings will return to their default values.

PRECAUTIONS

This product is engineered to give you years of satisfactory service if you handle it carefully. Here are a few precautions:

- 1. Do not immerse the unit in water.
- Do not clean the unit with abrasive or corrosive materials. They may scratch the plastic parts and corrode the electronic circuit.
- Do not subject the unit to excessive force, shock, dust, temperature or humidity, which may result in malfunction, shorter electronic life span, damaged battery and distorted parts.
- Do not tamper with the unit's internal components. Doing so will invalidate the warranty on the unit and may cause unnecessary damage. The unit contains no user-serviceable parts.
- Only use fresh batteries as specified in the user's manual. Do not mix new and old batteries as the old ones may leak.
- Always read the user's manual thoroughly before operating the unit

SPECIFICATIONS

Main unit

Display rainfall range (total) : 0 - 999.99 inches

(0 - 25,400 mm)

Display rainfall range : 0 - 99.99 inches (history / daily) (0 - 2.540 mm)

Rainfall resolution : 0.04 inches (1 mm

Rainfall resolution : 0.04 inches (1 mm)

Display temperature range : $23.0^{\circ}F$ to $122.0^{\circ}F$ (- $5.0^{\circ}C$ to $+50.0^{\circ}C$)

Proposed operating range $\hspace{3cm} : 23.0^{\circ}F \text{ to } 122.0^{\circ}F$ $(-5.0^{\circ}C \text{ to } +50.0^{\circ}C \text{)}$

Temperature resolution : (0.1°C) to 0.2°F

Remote Rain Collector

Proposed operating range: : 33.8° F to 140.0°F (1.0° C to 60.0°C)

General

RF Transmission Frequency : 433 MHz

RF Transmission Range : 300 feet (100 meters)

Temperature sensing cycle : around 30 seconds

Power

Main unit : 2 pcs UM-3 or "AA" 1.5V

battery

Remote sensing unit : 2 pcs UM-3 or "AA" 1.5V

alkaline battery

Weight

Main unit : 6.10 ounces (173 gm)

Remote sensing unit : 9.17 ounces (260 gm)

Dimensions

Main unit : 5.24 x 3.54 x 0.98 inches

(133 x 90 x 25mm)

Remote sensing unit : Dia 5.51x5.71 inches

(140 x 145mm)

NOTE ON COMPLIANCE

This device complies with Part 15 of the 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 operations.

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

FCC:

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 radio communications.

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.
- $\quad Increase the separation between the equipment and receiver.\\$
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer of an experienced radio/TV technician