

DIGITAL WEATHER FORECASTER WITH REMOTE THERMO-HYGRO SENSOR AND RADIO CONTROLLED CLOCK

MODEL NO.: BAR112HG

USER'S MANUAL

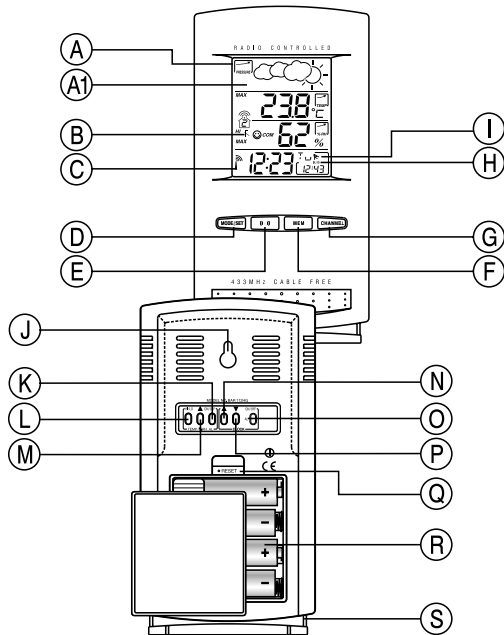
INTRODUCTION

Congratulations on your purchase of the Weather forecaster with cable free sensor and radio-controlled calendar clock (BAR112HG).

A multifunction device, this unit has a large four-line liquid crystal display (LCD) for displaying weather forecast information, in/outdoor temperatures, relative humidity, a radio frequency (RF) controlled calendar clock, time zone adjusted time, and dual daily alarms. Also, the main unit can support up to three remote sensors.

Other features include a day-of-the-week display in four abbreviated languages, a four-step crescendo alarm, and interchangeable clock display modes.

MAIN FEATURES: MAIN UNIT



A. FRONT DISPLAY

A four line easy-to-read LCD each with specific purposes that relate to weather forecasting, temperature, relative humidity, or clock / calendar / alarm functions.

A1. WEATHER FORECAST WINDOW

Graphically illustrates a weather forecast

B. [] BATTERY-LOW INDICATOR


Activates when the remote-sensor or main unit battery power is low

C. [] RADIO-RECEPTION SIGNAL

Indicates the condition of radio reception

D. [MODE/SET] BUTTON

Changes the display mode of the clock, and alters time/date setting

E. ALARM [] BUTTON



Displays the alarm time, or changes the alarm set time

F. [MEM] BUTTON

Displays minimum and maximum temperature and humidity readings, and erases memory data

G. [CHANNEL] BUTTON

Sets the remote sensor channel.

H. [] / [] ALARM ICONS

Appears when the alarm time is displayed

I. [] / [] ALARM-ON ICONS

Appears when the alarm is activated

J. WALL-MOUNT HOLE

For mounting the unit on a wall

TEMPERATURE & RELATIVE HUMIDITY ALARM :**K. [AL ON/OFF] BUTTON (TEMP/% RH ALARM ON/OFF)**

Enables / disables HI/LO temp alarm and HI/LO % RH alarm

L. [HI/LO] BUTTON

- Set the upper or lower temperature alarm limits of individual channels
- Confirms alarm settings

M. [] BUTTON


Sets the readings for the upper or lower temperature and humidity of individual channels

CLOCK :**N. [] BUTTON**

Advances the value of a setting

O. [AL ON/OFF] BUTTON

Enables or disables the daily alarms

P. [] BUTTON

Decreases the value of a setting

Q. [RESET] BUTTON

Returns all settings to default values

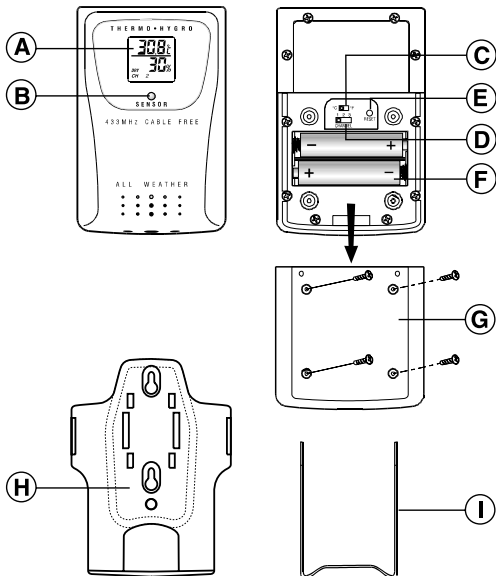
R. BATTERY COMPARTMENT

Accommodates four (4) UM-3 or “AA” size batteries

S. REMOVABLE TABLE STAND

For standing the main unit on a flat surface

FEATURES: REMOTE THERMO-HYGRO SENSOR



A. TWO-LINE LCD

Displays the current temperature and humidity monitored by the remote unit

B. LED INDICATOR

Flashes when the remote unit transmits a reading

C. °C/°F SLIDE SWITCH

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

D. CHANNEL SLIDE SWITCH

Designates the remote unit Channel 1, Channel 2 or Channel 3

E. RESET

Returns all settings to default values

F. BATTERY COMPARTMENT

Accommodates two AAA-size batteries

G. BATTERY DOOR

H. WALL-MOUNT HOLDER

Supports the remote unit in wall-mounting

I. REMOVABLE TABLE STAND

For standing the remote unit on a flat surface

BEFORE YOU BEGIN

For best operation,

1. Assign different channels to different remote units.
2. Insert batteries for remote units before doing so for the main unit.
3. Place the main unit as close as possible next to the remote unit, reset the main unit after installing batteries. This will ensure

easier synchronization between the transmission and reception of signals.

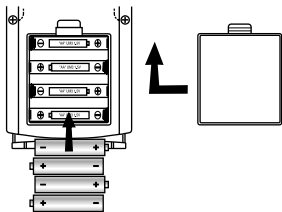
- Position the remote unit and main unit within effective transmission range, which, in usual circumstances, is 20 to 30 meters.

Note that the effective range is vastly affected by the building materials and where the main and remote units are positioned. Try various set-ups for best result.

Though the remote units are weather proof, they should be placed away from direct sunlight, rain or snow.

BATTERY INSTALLATION: MAIN UNIT

- Gently lift the tab on the battery compartment door.
- Insert four UM-3 or “AA” size alkaline batteries.



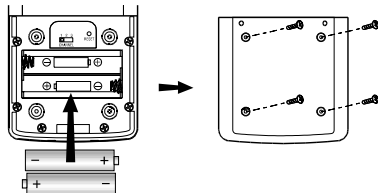
- Replace the battery compartment door.

BATTERY AND CHANNEL INSTALLATION: REMOTE UNIT

The remote thermo-hygro sensor unit uses two (2) UM-4 or “AAA” size alkaline batteries.

Follow these steps to install / replace batteries:

- Remove the screws on the battery compartment.
- Select the channel number on the [CHANNEL] slide switch.
- Select the temperature display unit on the °C/°F slide switch.



- Insert the batteries strictly according to the polarities shown therein.
- Replace the battery compartment door and secure its screws.

Replace the batteries when the low-battery indicator of the particular channel lights up on the main unit. (Repeat the steps described in section “BEFORE YOU BEGIN”)

Note that once a channel is assigned to a remote unit, you can only change it by removing the batteries or resetting the unit.

LOW BATTERY WARNING

When it is time to replace batteries, the respective low-battery indicator will show up when the respective channel is selected. The battery level of the main unit will be shown on the selected indoor temperature when it is running low.

HOW TO USE THE TABLE STAND OR WALL MOUNTING

The main unit has a removable table stand, which when connected, can support the unit on a flat surface. Or you can remove the stand and mount the unit on a wall using the recessed screw hole.

As for the remote unit, it comes with a wall-mount holder and a removable stand. Use either to hold the unit in place.

Main unit

Wall-mount

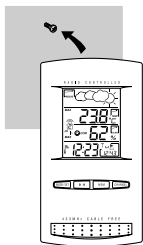
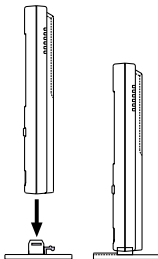


Table Stand

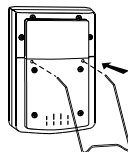


Remote unit

Wall-mount



Table Stand



THE RESET BUTTON

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

GETTING STARTED

Once batteries are placed in a given remote sensor unit, it will start transmitting information at 40-second intervals.

Also, for approximately a 3-minute duration, the main unit will automatically search for signals once batteries are installed. Upon successful reception, the individual channel temperature reading will be displayed on the top line and the respective humidity reading on the bottom line. The main unit will automatically update its readings at about 40-second intervals.

If no signals are received, blanks “---” will be displayed and the kinetic wave icon will not show.

To force a signal search:

- Press and hold [CHANNEL] & [MEM] for 2-seconds to enforce a 3-minute search.

This is useful in synchronizing the transmission and reception of the remote and main units.

Repeat this step whenever you find discrepancies between the reading shown on the main unit and that on the respective remote unit.

HOW TO CHECK REMOTE AND INDOOR TEMPERATURE & HUMIDITY

Display of readings from a remote sensor or the main unit is a one-step procedure. The remote sensor channel or the main unit display is indicated in a box under the kinetic-wave icon.

Kinetic-wave Icon				
Designated Display	Indoor Display	Remote Display Channel 1	Remote Display Channel 2	Remote Display Channel 3

To display temperature / humidity readings from the main unit:

- Press [CHANNEL] until a dot is displayed in the box under the kinetic-wave.

To display temperature / humidity readings from a remote sensor:

- Press [CHANNEL] until the appropriate remote sensor channel is displayed in the box under the kinetic-wave.

If no readings are received from one particular channel for more than 15 minutes, blanks “---” will be displayed until further readings are successfully searched. Check the remote sensor to ensure that it is secure and that the correct channel has been selected. Optionally, press and hold [CHANNEL] & [MEM] for 2-seconds to enforce a search.

HOW TO READ THE KINETIC WAVE DISPLAY




The kinetic wave display shows the signal receiving status of the main unit. There are three possible forms:

The unit is in searching mode.	
Transmission data are securely registered.	
No signal received in search mode.	

THE COMFORT-LEVEL ICONS

The comfort level is based on the recorded relative humidity. An indicator will be displayed or show if the level is comfortable, wet or dry.




Comfort-level	 COMFORT	 DRY	 WET
	Comfort	Dry	Wet


Arrow indicator	 PRESSURE	 PRESSURE	 PRESSURE
Pressure Trend	Rising	Steady	Falling

Note: If the temperature goes above or below the temperature measuring range of the main unit or the remote unit (stated in specification), the display will show “**HHH**” or “**LLL**”.

TEMPERATURE, HUMIDITY & PRESSURE TREND INDICATORS

The temperature-trend, humidity-trend and pressure trend indicators show the trends of collected readings. Arrows indicate a rising, steady or falling trend.

Arrow indicator	 TEMP TREND	 TEMP TREND	 TEMP TREND
Temperature Trend	Rising	Steady	Falling

Arrow indicator	 %RH	 %RH	 %RH
Humidity Trend	Rising	Steady	Falling

REMOTE SENSOR SCANNING

The unit can be set to automatically scan and display readings from the remote sensors and indoor readings. When the remote-sensor mode is active, the display will show the readings from one channel for about 4-second and then proceed to the next channel display.

To activate the remote-sensor scanning mode:

- Press and hold [CHANNEL] for 2-seconds.

To deactivate the remote-sensor scanning mode:

- Press either [CHANNEL], [MEM], [HI/LO], [▲], [ON/OFF]

(TEMP % RH AL)

MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY

The maximum and minimum recorded temperature and humidity readings will automatically be stored in the memory.

To display the maximum and minimum display memory:

1. Select the channel to be checked.
2. Press **[MEM]** once to display the maximum temperature humidity and again the minimum temperature humidity. The respective indicators, MAX or MIN will be displayed.

To clear the memory:

- Press and hold **[MEM]** for 2-seconds.

If you press **[MEM]** now, the maximum and minimum temperatures will have the same values as the current ones until different readings are recorded.

HOW TO USE CHANNEL-1 TEMPERATURE/ HUMIDITY ALARM

Upper and lower temperature and humidity limits for channel-1 can be set so that an alarm activates when the limits are exceeded.

The high and low temperature and humidity displays are selected by sequentially pressing **HI/LO**.

The high-low displays are as follows:

Sequence	Respective Display
Pressing HI/LO once	Enters HI temperature display
Pressing HI/LO twice	Enters HI humidity display
Pressing HI/LO third time	Enters LO temperature display
Pressing HI/LO fourth time	Enters LO humidity display

To set a high or low temperature or humidity alarm:

1. Press **[HI/LO]**, channel-1 will be displayed.
2. Press **[▲]** to set the temperature or humidity limit. Each press will increase increments by one degree or percentage. Press and hold the button for a rapid-scrolling sequence by increments of five.

Note: The **temperature** range is from -50°C (-58°F) to +70°C (158°F).

If this is the first time you set the limits, the lower limit will start from -50°C (-58°F) and the upper limit +70°C (158°F). Other wise, the reading will start from the temperature last selected.

The **humidity** range is from 2% to 98%.

If this is the first time you set the limits, the lower limit will start from 2% and the upper limit 98% Otherwise, the reading will start from the humidity last selected.

3. Repeat the steps to set the upper humidity setting and the lower temperature and humidity settings.
4. When finished, press **[HI/LO]** to set another limit or wait 16-seconds and the unit will automatically return to the normal display. The respective HI, LO or both indicators will light up to signify the status of the alarm.

If in another channel other than channel one is selected, when the alarm activates the display will switch to channel-1 and the display will flash. If left untouched, the alarm will activate for a 1-minute. Press any key to momentarily stop the alarm. The alarm will activate again if the limit continues exceeds the set limit.

Note: If a second limit is passed while an alarm is active, the first alarm will complete its 1-minute cycle and the alarm will continue to activate for a second minute to indicate that a second limit has

been surpassed.

To disable an alarm:

1. Enter the setting mode by pressing [HI/LO].
2. Then, press [AL ON/OFF].

The alarm has been disabled and will not sound at the previously set limit.

To disable a sounding alarm:

- Press either [CHANNEL], [MEM], [HI/LO], [▲], [ON/OFF]

(TEMP % RH AL)

DISCONNECTED SIGNALS

If without obvious reasons the display for a particular channel goes blank, press [CHANNEL] & [MEM] to enforce an immediate search.

If that fails, check:

1. The remote unit of that channel is still in place.
2. The batteries of both the remote unit and main unit. Replace as necessary.

Note that when the temperature falls below freezing point, the batteries of outdoor units will freeze, lowering their voltage supply and the effective range.





3. The transmission is within range and path is clear of obstacles and interference. Shorten the distance when necessary.

TRANSMISSION COLLISION

Signals from other household devices, such as door bells, home security systems and entry controls, may interfere with those of this product and cause temporarily reception failure. This is normal and does not affect the general performance of the product. The transmission and reception of temperature readings will resume once the interference recedes.

WEATHER FORECAST FUNCTION

The unit is capable of detecting atmospheric pressure changes. Based on collected data, it can predict the weather for the forthcoming 12 to 24 hours. The effective range covers an area of 30 to 50 km.

Indicator displays on the unit				
Forecast	Sunny	Slightly Cloudy	Cloudy	Rainy

NOTE:

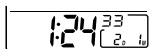
1. The accuracy of a general pressure-based weather forecast is about 70% to 75%.
2. The weather forecasts from this unit are predictions that cover the next 12 to 24 hours. It may not necessarily reflect the current situation.
3. The "Sunny" icon, as applies to nighttime, implies clear weather.

CALENDAR CLOCK DISPLAY MODES

The BAR112HG supports four time display modes in the sequence of:

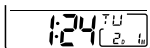
MODE 1. Hour-Minute-Second (of local time)

Day-Month (of local time)



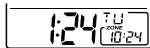
MODE 2. Hour-Minute-Day of the Week (of local time)

Day-Month (of local time)



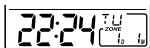
MODE 3. Hour-Minute-Day of the Week (of local time)

Hour-Minute (of alternate time zone)



MODE 4. Hour-Minute-Day of the Week (of second time zone)

Day-Month (of alternate time zone)



Each press on the [MODE/SET] button will toggle the display in the above order.

Note: The bottom line of the display will be replaced by the alarm time if the ALARM SET [(••)] button is pressed.

ABOUT RADIO RECEPTION





The BAR112HG is designed to automatically synchronize its calendar clock once it is brought within range of the Frankfurt DCF77 radio signal.

When the BAR112HG is within range, its radio-control mechanism will override all manual settings.

When the unit is receiving radio signal, the RADIO RECEPTION signal will start to blink. A complete reception generally takes about two to 10 minutes, depending on the strength of the radio signal.

When the reception is complete, the RADIO RECEPTION signal will stop blinking. The strength of the reception will remain until the next scanning cycle backs place.

For better reception, place the clock away from metal objects and electrical appliances to minimize interference.

	- Strong
	- Weak
	- No signal
	- Receiving

If you wish to disable the auto-reception feature, press the [▼] button for three seconds. The radio reception signal [] will disappear. The unit will not respond to radio signals.

To enable the feature again, press the [▲] button for three seconds.

The radio reception signal [] will start blinking to initiate reception automatically.

HOW TO SET THE CLOCK MANUALLY

To set the clock manually, hold [MODE/SET] for three seconds. The hour digits will blink.

Press [▲] or [▼] select the hour. Keep pressing the button to increase or decrease the value rapidly.

Press [MODE/SET] to confirm. The minute digits will blink.

Repeat the same procedure to set the minutes, current date, month, display language, day-of-week and offset for the alternate time zone.

Note: The time and date are displayed in 24-HOUR clock format. For the language display, you can choose among English (E), German (D), French (F) and Italian (I). Day-of-week is in the usual sequence of Monday through Sunday.

For the alternate time zone, which is indicated by the ZONE icon, enter the hour offset using the [▲] and [▼] buttons and the BAR112HG will calculate the second time accordingly.

If there is an item you do not wish to change, simply press [MODE/SET] to bypass the item.

When you are done, press [MODE/SET] to exit. The display will

return to the mode last chosen.

HOW TO SET AND ARM THE ALARMS

The BAR112HG has two alarms, ALARM 1 and ALARM 2. They can be invoked together or independently.

To set an alarm:

1. Press [(••)] once to select ALARM 1 or again to select ALARM 2 the last selected time of the alarm will be displayed. If you have never set the alarm before, the time will be displayed as 0:00.
2. Press [(••)] for three seconds. The hour digits will blink.
3. Enter the hour using [▲] and [▼].
4. Press [(••)]. The minute digits will blink.
5. Enter the minutes using [▲] and [▼].
6. Press [(••)] to exit. The [] icon for the alarm chosen will be displayed indicating the alarm set above is now armed.

You can also arm or disarm an alarm by pressing the [AL ON/OFF] button.

When an alarm is armed, it will go off at the set time.

The four-step crescendo function allows the alarm to start off gently and step up its intensity. Without interruption, the alarm will go off for a total of two minutes.

If a second alarm goes off when the first alarm is sounding off, the first alarm will be disabled automatically.

HOW TO STOP AN ALARM

To stop an alarm, you can use either press [(••)] button or [AL ON/OFF] button.

Pressing [(••)] or [AL ON/OFF] will stop the alarm, which is still armed and will activate at the set time the following day.

If [AL ON/OFF] button is pressed again, the alarm will be stopped and deactivated all together.

NOTE ON OUTDOOR-REMOTE TEMPERATURE / HUMIDITY

Once batteries are in place in the remote unit, it will start transmitting samplings at 40-second intervals.

If no signals are received when the outdoor-remote temperature humidity is selected, “- - -,-” will be displayed. To force the main unit to search for remote sensor signals, press [MEM] and [CHANNEL] buttons simultaneously.

If that fails, check that the remote sensor is still in place. Make sure the transmission is within range and the path is clear of obstacles and interference.

NOTE ON SETTING REMOTE SENSOR CHANNELS

The unit has an auto-scan function that sequentially displays temperature readings of up to three remote sensors. In order to function properly, each remote sensor must be set to different channels.

MAINTENANCE

When handled properly, this unit is engineered to give you years of satisfactory service. Here are a few product care instructions:

1. Do not immerse the unit in water. If the unit comes in contact with water, dry it immediately with a soft lint-free cloth.
2. Do not clean the unit with abrasive or corrosive materials. Abrasive cleaning agents may scratch the plastic parts and corrode the electronic circuit.
3. Do not subject the unit to excessive: force, shock, dust, temperature, or humidity. Such treatment may result in malfunction, a shorter electronic life span, damaged batteries, or distorted parts.
4. Do not tamper with the unit's internal components. Doing so will terminate the unit's warranty and may cause damage. The unit contains no user-serviceable parts.
5. Only use new batteries as specified in this instruction manual. Do not mix new and old batteries as the old batteries may leak.
6. Read this instruction manual thoroughly before operating the unit.

SPECIFICATIONS

Temperature Measurement

Main unit

Indoor Temperature measurement

Proposed operating range : -5.0°C to +50.0°C
(23.0°F to 122.0°F)

EC-DECLARATION OF CONFORMITY

This product contains the approved transmitter module **TX 01** and complies with the essential requirements of Article 3 of the R&TTE 1999/5/EC Directives, if used for its intended use and that the following standard(s) has/have been applied:

Efficient use of radio frequency spectrum
(Article 3.2 of the R&TTE Directive)

applied standard(s) **EN 300 220-1(2,3):1997**

Electromagnetic compatibility
(Article 3.1.b of the R&TTE Directive)

applied standard(s) **ETS 300 683:1997**


Safety of information technology equipment
(Article 3.1.a of the R&TTE directive)

applied standard(s) **EN 60950:1997**


Additional information:


The product is therefore conform with the Low Voltage Directive 73/23/EC, the EMC Directive 89/336/EC and R&TTE Directive 1999/5/EC (appendix II) and carries the respective CE marking.

VS-Villingen / Germany August 2001
Gerhard Preis
R&TTE Representative of manufacturer

CE 0682 

RTTE Compliant Countries :

All EC countries, Switzerland 

And Norway 

Temperature resolution : 0.1°C (0.2°F)
Relative Humidity Operating range : 25% RH to 90% RH

Remote thermo-hygro unit

Proposed operating range : -20.0°C to +60.0°C
(-4.0°F to 140.0°F)

Temperature resolution : 0.1°C (0.2°F)

Relative Humidity Operating range : 25% RH to 90% RH

Power

Main unit : use four (4) UM-3 or "AA"
1.5V alkaline battery

Remote sensing unit : use two (2) UM-4 or "AAA"
1.5V alkaline battery

Weight

Main unit : 189gm (without battery)

Remote sensing unit : 63 gm (without battery)

Dimension

Main unit : 161 x 87 x 28 mm (L x W x D)

Remote sensing unit : 92 x 60 x 20mm (L x W x D)

CAUTION

- The content of this manual is subject to change without further notice.
- Due to printing limitation, the displays shown in this manual may differ from the actual display.
- The contents of this manual may not be reproduced without the permission of the manufacturer.

MODEL: BAR112HG

**DIGITAL WEATHER FORECASTER
WITH REMOTE THERMO-HYGRO SENSOR AND RADIO
CONTROLLED CLOCK**

Instruction Manual

Mode D'emploi

Bedienungsanleitung

Manuale di Istruzioni

Instrucciones de Funcionamiento