MULTI-CHANNEL IN-OUT CABLE FREE THERMO-HYGROMETER

MODEL : EMR812HG

USER'S MANUAL

INTRODUCTION

Congratulations on your purchase of the Multi-Channel In-Out Thermometer / Hygrometer (EMR812HG) with a 433MHz cable-free thermo-hygro sensor.

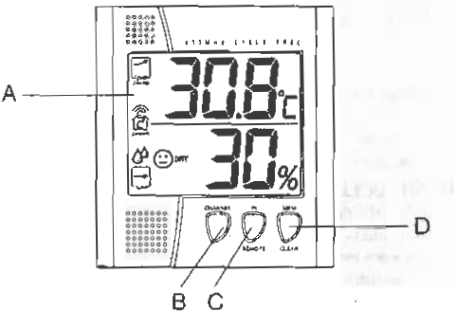
Enclosed with this package is one (1) main display unit and one (1) cable-free remote thermo-hygro sensor unit.

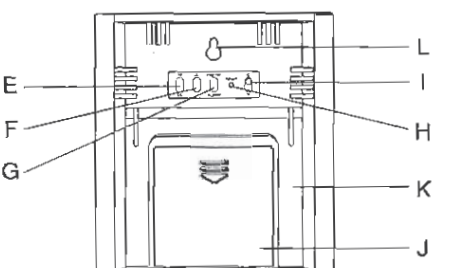
The main unit has an extra-large multifunction 2-line LCD that shows recordings for indoor and outdoor temperatures, humidity, maximum and minimum recordings and trend indicators. The unit supports up to three 433MHz remote thermo-sensors or thermo-hygro sensors. A variety of additional sensors can be purchased separately.

In addition to monitoring maximum and minimum temperature and humidity readings, the unit also has an alarm that can be set to activate once readings exceed a given variance.

No wire installation is required between the main and remote units. As the EMR812HG operates at 433MHz, it can be used in the U.S. and most places in Continental Europe.

FEATURES: MAIN UNIT





rge two-line Liquid Crystal Display (LCD)
ction display showing temperature and humidity,
, memory, and trend indicators for the main unit and
ensors.

EL button
among different channels
es remote sensor scanning mode

OTE
between the main-unit display and a selected
unit
es search mode

LEAR button
the maximum or minimum temperature and
ty readings
the maximum and minimum temperature and
ity memory of remote sensor channels or the main
splay

utton
upper or lower temperature alarm limits of
ual channels
ms alarm settings

n
eadings for the upper or lower temperature and
of individual channels

I **°C/°F slide switch**
Selects between degree Centigrade (°C) and Fahrenheit (°F)

J **Battery compartment**
Accommodates two AA-size batteries

K **Retractable table stand**
For standing the main unit on a flat surface

L **Recessed Wall-mount hole**
For mounting the main unit on a wall

FEATURES: REMOTE THERMO-HYGRO SENSOR

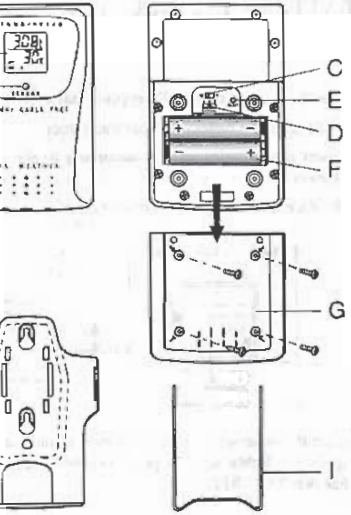
A **Two-line LCD**
Displays the current temperature and humidity monitored by the remote unit

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**



holder

BEFORE YOU BEGIN

To ensure proper functioning of the EMR812HG follow this setup procedure.

For best operation:

1. Assign different channels to different remote units.
2. Insert batteries for remote units before doing so for the main unit (see instructions for battery installation).
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.
4. 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.

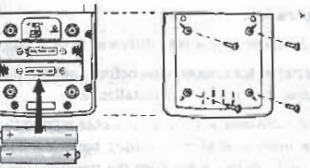
Though the remote units are weather proof, they should be placed away from direct sunlight, rain or snow.

steps to install / replace batteries:

ıe screws on the battery compartment.

channel number on the **CHANNEL** slide switch.

temperature display unit on the °C/°F slide switch.



batteries strictly according to the polarities shown

e battery compartment door and secure its screws.

tteries when the low-battery indicator of the particular up on the main unit. (Repeat the steps described in ORE YOU BEGIN")

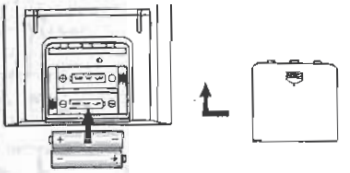
nce a channel is assigned to a remote unit, you can e it by removing the batteries or resetting the unit.

BATTERY INSTALLATION: MAIN UNIT

The main unit uses two (2) UM-3 or "AA" size alkaline batteries.

Follow these steps to install / replace batteries:

1. Slide open the battery compartment door.
2. Insert the batteries strictly according to the polarities shown therein.
3. Replace the battery compartment door.



Replace the batteries when the low-battery indicator of the indoors temperature lights up. (Repeat the steps described in section "BEFORE YOU BEGIN")

If not disposed of properly, batteries can be harmful. Protect the environment by taking exhausted batteries

GETTING STARTED

are placed in a given remote sensor unit, it will start formation at 40-second intervals.

oximately a 3-minute duration, the main unit will earch for signals once batteries are installed. Upon ption, the individual channel temperature reading d on the top line and the respective humidity reading line. The main unit will automatically update its ut 40-second intervals.

e received, blanks " --- " will be displayed and the on will not show.

al search:

hold **IN/REMOTE** for 2-seconds to enforce a arch.

synchronizing the transmission and reception of the n units.

p whenever you find discrepancies between the on the main unit and that on the respective remote

TO CHECK REMOTE AND

Kinetic-wave Icon				
Designated Display	Indoor Display	Remote Display Channel One	Remote Display Channel Two	Remote Display Channel Three

To display temperature / humidity readings from the main unit:

- Press **IN / REMOTE** 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 form 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 **IN/REMOTE** for 2-seconds to enforce a search.

HOW TO READ THE KINETIC-WAVE DISPLAY

s in searching mode.	•	
sion data are securely	•	
s.		•

E COMFORT-LEVEL ICONS

level is based on the recorded relative humidity. An be displayed ot show if the level is comfortable, wet or

vel	COMFORT	DRY	WET

RATURE AND HUMIDITY TREND INDICATORS

ure-trend and humidity-trend indicators show the trends readings. Arrows indicate a rising, steady or falling

Arrow Indicator			
Temperature Trend	Rising	Steady	Falling

Arrow indicator			
Humidity 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".

REMOTE SENSOR SCANNING

The unit can be set to automatically scan and display readings from the remote sensors. 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.

the remote-sensor scanning mode:

utton.

AXIMUM AND MINIMUM PERATURE AND HUMIDITY

and minimum recorded temperature and humidity utomatically be stored in the memory.

maximum and minimum display memory:

hannel to be checked.

I/CLEAR once to display the maximum temperature he minimum temperature. The respective indicators, IN will be displayed.

nemory:

old **MEM/CLEAR** for 2-seconds.

MEM/CLEAR now, the maximum and minimum vill have the same values as the current ones until ngs are recorded.

GB

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** three times	Enters LO temperature display
Pressing **HI/LO** a four 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.

rature range is from -50°C (-58°F) to +70°C

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

ity range is from 2% to 98%.
first time you set the limits, the lower limit will start
d the upper limit 98% Otherwise, the reading will
he humidity last selected.

steps to set the upper humidity setting and the lower
e and humidity settings.

shed, press **HI/LO** to set another limit or wait
s and the unit will automatically return to the normal
he respective HI, LO or both indicators will light up
he status of the alarm.

hannel other than channel one is selected, when the
s the display will switch to channel-1 and the display
eft untouched, the alarm will activate for a 1-minute.
o momentarily stop the alarm. The alarm will activate
nit continues exceeds the set limit.

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 any button, the alarm sound will stop.

DISCONNECTED SIGNALS

If without obvious reasons the display for a particular channel goes blank, press **IN/REMOTE** 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.

RANSMISSION COLLISION

ther household devices, such as door bells, home s and entry controls, may interfere with those of this se temporarily reception failure. This is normal and t the general performance of the product. The d reception of temperature readings will resume once e recedes.

NOTE ON °C AND °F

perature display is selected on the °C/°F slide switch. entigrade or °F for Fahrenheit.

e remote temperature display on the main unit is by the selection on the °C/°F slide switch of the Whatever the display units of the remote sensors l be automatically converted to the chosen one of it.

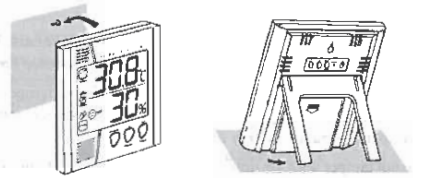
OW BATTERY WARNING

HOW TO USE THE TABLE STAND OR WALL MOUNTING

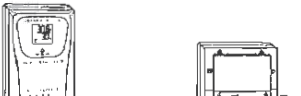
The main unit has a retractable table stand, which when flipped open, can support the unit on a flat surface. Or you can flip close the stand and mount the unit on a wall using the recessed screw hole.

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

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

PRECAUTIONS

1 is engineered to give you years of satisfactory service
e it carefully. Here are a few precautions:

mmerse the unit in water.

lean the unit with abrasive or corrosive materials. They
atch the plastic parts and corrode the electronic circuit.

bject the unit to excessive force, shock, dust, temperature
lity, which may result in malfunction, shorter electronic
, damaged battery and distorted parts.

mper with the unit's internal components. Doing so will
e the warranty on the unit and may cause unnecessary
The unit contains no user-serviceable parts.

fresh batteries as specified in the user's manual. Do not
and old batteries as the old ones may leak.

ead the user's manual thoroughly before operating the

SPECIFICATIONS

Main unit

Proposed operating range	:	- 5.0° C to 50.0°C (23.0° F to 122.0°F)
Temperature resolution	:	0.1° C to (0.2°F)
Temperature compensation	:	-10.0° C to 60.0° C (14.0° F to 140.0° 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 to (0.2°F)
Temperature compensation	:	-10.0° C to 60.0° C (14.0° F to 140.0° F)
Relative Humidity Operating range	:	25% RH to 90% RH

ı Frequency	:	433 MHz
unit	:	Maximum of 3
ı Range	:	Maximum 30 meters
npensation	:	0.1° C to (0.2°F)
sing cycle	:	around 40 seconds
	:	2 pcs UM-3 or "AA" 1.5V alkaline battery
unit	:	2 pcs UM-4 or "AAA" 1.5V alkaline battery
	:	159.5 gm
unit	:	63 gm
	:	117 x 107 x 26 mm
unit	:	92 x 60 x 20 mm

NOTE ON COMPLIANCE

This product complies to standards and specifications of BZT, FCC and article number 334 of PTT.

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.

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.

CAUTION

ontent of this manual is subject to change without
r notice.

o printing limitation, the displays shown in this
al may differ from the actual display.

manufacturer and its suppliers held no
nsibility to you or any other person for any damage
ses, lost profits, or any other claim arise by using
roduct.

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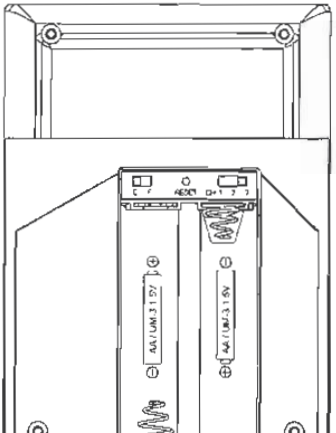
MANUAL ADDENDUM FOR BATTERY COMPARTMENT