# Honeywell

Weather Forecaster with Indoor/Outdoor Temperature and Humidity

USER MANUAL

(TE529ELW)

## INTRODUCTION

Thank you for selecting the Honeywell Weather Forecaster. This device includes weather forecast with pressure trend, precise time keeping and temperature and humidity monitoring features that you can use from the comfort of your home. In this package you will find:

· Main unit (receiver)

• Remote sensor (transmitter) TS33

Please keep this manual handy as you use your new item. It contains practical step-by-step instructions, as well as technical specifications and precautions you should know.

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## PRODUCT OVERVIEW

## MAIN UNIT

## FEATURES

- Wireless sensor transmits temperature and humidity to the main unit from up to 100 feet away
- Multi-channel capability to monitor temperature and humidity in up to 3 remote locations
- · Indoor/Outdoor temperature with trends
- · Indoor/Outdoor humidity with comfort level indicators
- Weather forecast in 5 large graphic icons: Sunny, Partly Cloudy, Cloudy, Rainy and Snowy
- · Barometric pressure indication
- Precise time and date set via RF signal from the US Atomic Clock
- Calendar displays date with month and weekday in English, Spanish, French, German or Italian
- · Dual crescendo alarm with snooze
- Programmable low-temperature alarm warning about icy or inclement weather conditions
- · Blue backlight



#### A WEATHER AND PRECISE TIME INFORMATION IN FIVE - LINE LCD DISPLAY

Views indoors and outdoors conditions along with precise time

#### **B MEMORY BUTTON**

1). Recalls current, maximum or minimum temperature and humidity

2). Clears all readings memory

#### C MODE BUTTON

Changes clock display modes, activates and confirms settings

#### D ALARM ON/OFF BUTTON

Sets weekday, single and pre-alarm and allows displaying alarm status

#### **E UP BUTTON**

- 1). Increases settings
- 2). Activates all alarms
- 3). Activates atomic clock receiver

#### F DOWN BUTTON

- 1). Decreases setting
- 2). Disables all alarms
- 3). Enforces remote sensor channel signal search

#### **G CHANNEL BUTTON**

- 1). Recalls the different remote sensor reading
- 2). Enables auto-scan feature

## H SNOOZE/LIGHT BUTTON

- 1). Stops alarm temporarily
- 2). Activates LCD backlight



#### REAR VIEW

- I WALL MOUNT RESESSED HOLE Keeps unit on the wall
- J BATTERY COMPARTMENT Accommodates 2 (two) UM-3 or AA 1.5V alkaline batteries

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K REMOVABLE TABLE STAND Keeps unit in upright position

#### REMOTE SENSOR

#### FEATURES

- Remote temperature transmission to the main unit via 433 MHz signal
- Case can be wall mounted using built-in hanger
- 100 feet transmission range without interference
- LCD display of measured temperature and humidity
- Temperature display type (C<sup>o</sup>or F<sup>o</sup>) selection Transmission channel selection



#### A LED INDICATOR

Flashes once when the remote sensor transmits the reading to the main unit. Flashes twice indicating low battery

- **B BATTERY COMPARTMENT** Holds two AA-size batteries
- C RESET

Resets all previous settings

## D CHANNEL SWITCH

Selects the desired channel

## E WALL-MOUNT RECESSED HOLE

Keeps the remote sensor on the wall

#### F °C/ °F SWITCH

Selects the temperature display unit in Celsius or Fahrenheit

#### **BEFORE YOU BEGIN**

- We recommend using alkaline batteries for the main unit and remote sensor.
- 2. Avoid using rechargeable batteries.
- Insert batteries before first use, matching the polarity as shown in the battery compartment.
- Always install batteries in the remote sensor before the main unit.
- 5. Press RESET after each battery change, using a paper clip or similar tool.
- During an initial setup, place the main unit as close as possible to the remote sensor.
- After reception is established (remote temperature will appear on the receiver's display), position the remote sensor and main unit within the effective transmission range of 100 feet.

#### NOTE:

- Avoid setting the time and date on the main unit before the outdoor temperature is displayed.
- The effective operating range may be influenced by the surrounding building materials and how the receiver and transmitter are positioned.
- Position the remote sensor so that it faces the main unit (receiver), minimizing obstructions such as doors, walls, and furniture.
- 4. Though the remote sensors are weather-resistant, they should be placed away from direct sunlight, rain or snow.

#### BATTERY INSTALLATION REMOTE SENSOR

NOTE: Install the batteries; select the channel and type of temperature ( $^{\circ}C/^{\circ}F$ ) before you mount the sensor.

- Remove the screws from the battery compartment with a small Phillips screwdriver.
- 2. Set the channel. The switch is located in the battery compartment. Channel 1 is typically selected if

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only one remote sensor is being used.

- 3. If you are using more than one sensor, select a different channel for each sensor.
- Install two "AA" size alkaline batteries (not included) matching to the polarities shown in the battery compartment.
- 5. Replace the battery compartment door and secure the screws.
- 6. Secure the remote sensor in the desired location.

## BATTERY INSTALLATION MAIN UNIT

- 1. Open the battery compartment door.
- 2. Install two batteries (UM-3 or "AA" size 1.5V) matching the polarity as shown in the battery compartment.
- 3. Replace the battery compartment door.

## LOW BATTERY WARNING

A low-battery indicator [ **\*\***] will appear on the indoor or remote temperature reading line of the main unit warning that the corresponding batteries need replacement.

#### HOW TO USE THE TABLE STAND

The main unit has a removable table stand, which supports the unit on the flat surface. The main unit can also be mounted on the wall using the recessed screw hole. The stand must be removed prior to mounting. The remote sensor can be similarly mounted or placed on a flat surface.

## GETTING STARTED

After batteries are installed, remote sensors will transmit temperature readings at 45 second intervals. The main unit may take up to 2 (two) minutes to receive the initial readings. Upon successful reception, remote temperature will be displayed. Then the main unit will automatically update readings at 45-second intervals.

If no signals are received from the remote sensor(s) within (2) two minutes, dashes " •••" will be displayed. Press and hold [♥] button on the main unit for 2 seconds to initiate another signal search.

## CHECKING REMOTE AND INDOOR TEMPERATURES

The wave icon on the main unit's display located near the remote sensor reading line, indicates a good reception from the remote sensor. If the temperature goes above or below the temperature operating range stated in specifications, the display will show dashes "••••"

#### READING THE KINETIC WAVE DISPLAY

The kinetic wave display shows the main unit (receiver) signal reception strength.

| The unit is in searching mode.            |       |
|---|-------|
| Temperature readings securely registered. | Ŵ     |
| No signals.                               | ••.°F |

### WWVB RADIO CONTROLLED TIME

The NIST (National Institute of Standards and Technology) radio station is located in Ft. Collins Colorado. It transmits an exact time signal continuously throughout the continental United States at 60 KHz frequency. The Weather Forecaster can receive this WWVB signal through its internal antenna from up to 2,000 miles away. Due to the nature of the Earth's ionosphere, reception can be limited during the daylight hours. The radio controlled clock will search for an alternate station that derives its signal from the NIST Atomic clock in Boulder, Colorado.

The WWVB tower icon on the main unit's display will flash indicating radio signal reception from the WWVB station. If the tower icon is not fully lit, or if the time is not set automatically, please consider the following:

\* During night-time hours, atmospheric disturbances are typically less severe and reception may improve. A single daily reception is sufficient enough to keep the accuracy reading within 1 second.

- \* Make sure the main unit is positioned at 8 feet minimum distance from any interference source such as a TV, computer monitor, microwave, etc. The successful reception of the atomic time signal depends on the positioning and location of the clock. Always place the main unit by the window for better reception.
- \* Within concrete wall rooms such as basements or office buildings, the received signal may be weakened. Always place the unit near the window.

#### MAXIMUM AND MINIMUM TEMPERATURE & HUMIDITY

The maximum and minimum records of the indoor/outdoor temperature and humidity will be automatically stored in the memory of the main unit (receiver). Main unit will display the minimum, maximum and the current reading upon each press of **MEM** button. The unit will return to the current temperature display in 15 seconds. To clear the memory, press and hold **MEM** button and stored readings will be erased.

#### TEMPERATURE TRENDS

The temperature trend indicator shows the trend of temperatures collected at particular remote sight. There are three trends will be shown: rising, steady, and falling.

| Arrow<br>indicator   | )<br>J |        |         |
|----------------------|--------|--------|---------|
| Temperature<br>Trend | Rising | Steady | Falling |

#### COMFORT LEVEL INDICATORS

The comfort level indicators **COM**, **WET** or **DRY** will tell you if the current environment is comfortable, too wet or too dry. The comfort indicators will appear on the display of the main unit when the following conditions are satisfied:

| Indicator<br>displayed<br>on the unit | Temperature<br>Range                                    | Humidity<br>Range    | Shows<br>Current<br>Environment                                 |
|---------------------------------------|---|----------------------|---|
| сом                                   | 20°C to 25°C<br>(68°F to 77°F)                          | 40%RH-<br>70%RH      | Ideal range for<br>both relative<br>humidity and<br>temperature |
| WET                                   | -5°C -+ 50°C<br>(23°F - 122°F)                          | OVER<br>70%RH        | Contains excess<br>moisture                                     |
| DRY                                   | -5°C -+ 50°C<br>(23°F - 122°F)                          | Below<br>40%RH       | Contains<br>inadequate<br>moisture                              |
| No<br>Indicator                       | Less than<br>20°C (68°F) or<br>More than<br>25°C (77°F) | 40%RH<br>to<br>70%RH | No comment  |

#### WEATHER FORECAST

The weather station is capable of detecting atmospheric pressure changes. Based on collected data, it forecasts the weather for the next 12 to 24 hours.

| When the<br>display<br>shows | Ø     | ĝ                | Ø      |       | $\mathcal{O}$ |
|------------------------------|-------|------------------|--------|-------|---------------|
| Forecast is                  | Sunny | Partly<br>Cloudy | Cloudy | Rainy | Snowy         |

#### NOTE:

- 1. The weather forecast accuracy is approximately 70%.
- 2. Display shows forecasted, not current conditions.
- 3. The "Sunny" icon indicates clear weather, even when displayed during night-time.

#### TEMPERATURE AND HUMIDITY SCANNING

Press and hold **CHANNEL** button for 2 seconds – the indoor, channel 1, channel 2 and 3 readings will be displayed in sequence automatically.

#### LOST COMMUNICATIONS

If the main unit display for the remote sensor goes blank, press and hold [ $\bigtriangledown$ ] button for 2 seconds to begin a new signal search. If the signal still isn't received, please make sure that:

- 1. The remote sensor is in its proper location.
- 2. The distance between main and remote units is not over 100 feet.
- 3. The path between the units is clear of obstacles. Shorten the distance between units if necessary.
- Fresh batteries are installed correctly in both remote and main units.

Note: When the temperature falls below freezing, the batteries in outdoor remote sensors may have reduced voltage supply and a shorter effective range. We recommend to Use lithium-ion batteries at the temperatures below 32°F

If everything listed above is in order and there is no reception anyway, please perform the following steps:

- 1. Bring main unit and remote sensor close together.
- Remove 4 small screws from the back of the remote sensor and open the battery compartment.
- Remove the batteries from the battery compartment and reinstall them in the same manner. Remote sensor LED indicator will flash showing transmission of the signal.
- 4. Remove the batteries from the main unit and reinstall them in the same manner.
- On the main unit select the same channel number as set on the remote sensor. Outdoor temperature on the display will show that transmission is being received successfully.

#### TRANSMISSION COLLISION

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

#### ATOMIC CLOCK

- After the main unit receives readings from the remote sensor(s), the atomic time signal receiver will automatically search for the time signal. This takes about 5-8 minutes.
- 2. When the radio signal is received, the date and time will be set automatically, and the [ •] icon will appear.
- If in 8 minutes the time signal has not been received, press "MODE" button to set the time manually. Always place the main unit by the window for better reception.
- 4. The clock will continue to search for the WWVB time signal daily for every hour between 1:00 am and 4:30 am. After the signal has been successfully obtained, the time and date will be updated automatically.

#### CALENDAR AND CLOCK DISPLAY MODES

Date is displayed in month-date format. Each press of the **MODE** button will change the clock display setting between the time with seconds and time with weekday.

## SETTING CLOCK MANUALLY TIME ZONE

- Press MODE to select HOUR/MINUTE/WEEKDAY display.
- Press and hold "UP" button for 3 seconds to enter into TIME ZONE display mode.
- 3). Keep holding "UP" button to select the desired TIME ZONE.

#### CLOCK

- 1). Press and hold MODE for 3 seconds: the year will flash.
- 2). Press "▲" or "▼" to change the flashing digits. After the first value is set, press MODE again. Continue setting month, day, 12/24 hour time display, minutes, day of week, and Fahrenheit or Celsius display. When you've set the last value, press MODE for the last time to return to regular mode.

#### ALARM

To set any alarm,

- Press [ALARM ON/OFF] once to display alarm time. If the alarm is off, "OFF" will be displayed.
- Press and hold [ALARM ON/OFF] for two seconds. The hour digit will flash.
- 3. Enter the hour using  $[\mathbf{\nabla}]$  or  $[\mathbf{\Delta}]$ .
- Press [ALARM ON/OFF] again. The minute digits will flash.
- 5. Enter the minutes using  $[ \mathbf{\nabla} ]$  or  $[ \mathbf{\Delta} ]$ .
- 6. Press [ALARM ON/OFF] again to exit.
- 7. Repeat the same procedure to set a Single and Pre-Alarm.

#### SNOOZE

When the alarm sounds, press the **SNOOZE/LIGHT** button to temporarily stop the alarm. After depressing **SNOOZE/LIGHT** button, the alarm sound will resume in 5 minutes. If the alarm is not disabled after that, it will sound for 4 more minutes and then will stop by itself.

#### DISABLING ALARM

Press [ALARM] button on the main unit to disable an alarm.

## ALARMS

\* Weekday Alarm The alarm will sound and the alarm icon will flash at the set time Mondays through Fridays.

#### \* Single Day Alarm

The alarm will sound and the alarm icon will flash at the set time, but will not activate on subsequent days.

#### \* Low Temperature Pre-Alarm

If an outdoor temperature is  $32^{\circ}$  F / 0° C or below, the pre-alarm feature will be activated. The pre-alarm time interval can be set for 15, 30, 45, 60, 75 or 90 minutes before the weekday or single alarm time. Press and hold [ALARM ON/OFF] button for two seconds in Pre-Alarm mode to set the pre-alarm interval.

"(%W" (Weekday alarm), "(%S" (Single day alarm), and "Pre-AL" (Pre-alarm) icons will indicate which alarm mode is armed. You can enable or disable an alarm by pressing the [▲], [♥] buttons in alarm display mode. Press ALARM ON/OFF to toggle between alarm modes or to return to the default display.

### PRECAUTIONS

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

- 1. Do not immerse the units in water.
- Do not clean the units with abrasive or corrosive materials. They may scratch the plastic parts and corrode the electronic circuits.
- Do not subject the product to excessive force, shock, dust, temperature, or humidity, which may result in malfunctions, shorter lifespan, damaged batteries, and damaged parts.
- 4. Do not tamper with the units' internal components. Doing so will invalidate the warranty and may cause damage. These units contain no user-serviceable parts.
- 5. Use only fresh batteries. Do not mix new and old batteries.
- 6. Read the user's manual thoroughly before operating the units.

## SPECIFICATIONS

Temperature and Humidity Measurement Main unit Indoor Temperature Proposed operating range :-5°C to +50°C / 23°F to 122°F Temperature resolution :0.1°C / 0.2°F Indoor Humidity Proposed operating range :25% RH to 90% RH Resolution:1% Comfort indicators – COMFORT, WET & DRY

User- Selectable F° or C° temperature display format

| Remote Sensor<br>Temperature   |   |  |  |  |
|--|---|--|--|--|
| Proposed operating range<br>with alkaline batteries  | : -20°C to + 70°C /<br>-4°F to 158°F                |  |  |  |
| Proposed operating range with lithium batteries  | $:-38^{\circ}F$ to $158^{\circ}F$                   |  |  |  |
| Temperature resolution<br>Humidity   | (-38.8 C° to 70°C)<br>: 0.1°C/ 0.2°F                |  |  |  |
| Proposed operating range<br>Resolution   | : 25% to 90%<br>: 1%                                |  |  |  |
| RF Transmission Frequency<br>Maximum number of Remote sensors  |   |  |  |  |
| RF Transmission Range<br>Temperature sampling cycle  | : Maximum 100 feet<br>: approximately<br>45 seconds |  |  |  |
| Calendar and Clock<br>12 hour display in hh : mm format<br>Date Format: Month – Day format<br>Day of week: User- selectable in 5 languages<br>(English, Spanish, French, German, Italian)<br>Dual 4-minute crescendo alarm with snooze<br>Pre-alarm for ice alert with programmable time intervals<br>Blue Backlight |   |  |  |  |
| Wall Mount or Table Stand<br>Power   |   |  |  |  |
| Main unit : 2 AA batteries<br>- alkaline are suggeste  | d (not included)                                    |  |  |  |
| Remote Sensor : 2 AA batteries<br>– alkaline are suggested   | d (not included)                                    |  |  |  |
| Dimensions<br>Main unit : 3.68"(L) x 7.31"(H) x<br>Remote sensor : 2.37"(L) x 4"(H) x 1"(  |   |  |  |  |
|  |   |  |  |  |

#### FCC STATEMENT

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 operation.

Warning: Changes or modification 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 had 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:

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

#### DECLARATION OF CONFORMITY

#### We

Name: Hideki Electronics, Inc. Address: 7865 SW Mohawk, Tualatin, OR 97062 Telephone No.: 1-503-612-8395

declare that the product

Product No.: TE529ELW Product Name: Weather Forecaster with Indoor/Outdoor Temperature and Humidity Manufacturer: Hideki Electronics Ltd. Address: Unit 2304-06, 23/F Riley House, 88 Lei Muk Road, Kwai Chung, New Territories, Hong Kong

is in conformity with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

The information above is not to be used as contact for support or sales. Please call our customer service hotline (refer to the warranty statement) for all inquiries instead.

#### STANDARD WARRANTY INFORMATION

This product is warranted from the manufacturing defects for one year from date of retail purchase. It does not cover damages or wear resulting from accident, misuse, abuse, commercial use, or unauthorized adjustment and repair.

Note that online product registration is required to ensure valid warranty protection.

To register your product, go to our Company website at: www.hidekielectronics.us. Click Online Product Registration under the Customer Service menu. Should you require assistance with this product and its

Should you require assistance with this product and its operation, please contact our

Customer Service Hotline 1(866) 443 3543

Please direct all returns to the place of the original purchase. Should this not be possible, contact Customer Service Hotline for assistance and to obtain a Return Merchandise Authorization (RMA). Returns without a return authorization will be refused. Please retain your original receipt as you may be asked to provide a copy for proof of purchase.

Hideki Electronics, Inc. reserves the right to repair or replace the product at our option.

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