# Digiview Wireless Thermometer with Atomic Clock USER MANUAL (TE22W)

## INTRODUCTION

Thank you for selecting the Hideki Wireless Thermometer with Atomic Time. This device includes precise time keeping and temperature monitoring features that you can use from the comfort of your home. In this package you will find:

• One main unit (receiver)

• One remote sensor (transmitter) TS03 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.

# ABOUT HIDEKI ELECTRONICS, INC.

Visit our website (www.hidekielectronics.us) to learn more about other Hideki Electronics products such as precise projection time pieces, environmental products and weather monitoring devices. The website also includes important information about an extended warranty program and other useful facts.

# PRODUCT OVERVIEW

# MAIN UNIT

## FEATURES

- Wireless transmission of the temperature from the remote sensor to the main unit from up to 100 feet (30 meters) away
- Indoor and Outdoor temperature display
- Precise time and date set via RF signals from the US Atomic Clock
- Calendar displaying date with month and day of the week in English, Spanish, French, German or Italian
- · Dual crescendo alarm with snooze feature
- Programmable Freeze Pre-Alarm
- Wall mount or desktop option
- · Low battery indicator



FRONT VIEW

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

- 1st line : one-channel remote temperature with trend.
- 2nd line : indoor temperature with trend .
- 3rd line : time of day with seconds, time of day with the day of the week, US time zone map.
- 4th line : calendar and alarms -weekly, single and pre-alarm.

## **B MEM BUTTON**

- Toggles between current, minimum and maximum readings of the indoor and remote temperatures.
- · Clears the memory.

#### C MODE BUTTON

 Toggles between the clock modes – time with seconds and time with the day of the week.

#### D ALARM BUTTON

Switches between weekly, single alarm and pre-alarm modes.

## E UP(▲) BUTTON

- · Increases all function parameters.
- Activates atomic clock receiver.
- · Activates US Time Zone selection mode.
- · Enables any of the alarms.

### F DOWN (▼) BUTTON

- · Decreases all function parameters.
- · Disables all available alarms.
- · Enforces the remote sensor signal search.

#### G SNOOZE BUTTON

· Stops any alarm temporarily.



#### REAR VIEW

#### H BATTERY COMPARTMENT

 Accommodates 2 (two) UM-3 or AA 1.5V alkaline batteries.

## I WALL-MOUNT RECESSED HOLE

• Keeps main unit on the wall.

#### J REMOVABLE TABLE STAND

· Keeps unit in upright position on a flat surface.

### 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 (30 meters) transmission range without interference
- · Selection of the temperature display in Celsius or Fahrenheit



### A LED INDICATOR

- Flashes once when the remote sensor transmits a reading to the main unit.
- · Flashes twice when battery power is low.

#### **B BATTERY COMPARTMENT**

· Holds two AA-size batteries.

## C WALL-MOUNT RECESSED HOLE

. Keeps the remote sensor on the wall.

## D RESET

· Resets all readings.

#### E °C/ °F SWITCH

· Selects the temperature display in Celsius or Fahrenheit.

## **BEFORE YOU BEGIN:**

- 1 The remote sensor can be placed indoors or outdoors, the main unit must be placed indoors.
- 2 We recommend using alkaline batteries for the remote sensor and main unit when temperatures are above 32°F (0°C). We recommend using AA lithium batteries for the remote sensor when temperatures are below 32°F (0°C).
- 3 Avoid using rechargeable batteries. (Rechargeable batteries cannot maintain correct power requirements).
- 4 Insert batteries before first use, matching the polarity in the battery compartment.
- 5 ALWAYS install batteries in the remote sensor *before* the main unit.
- 6 Press RESET after each battery change with a paper clip or similar tool.
- 7 During an initial setup, place the main unit as close as possible to the remote sensor.
- 8 After reception is established (the remote temperature will appear on the main unit's display), position the remote sensor and the main unit within the effective transmission range of 100 feet (30 meters).

## NOTĚ:

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

NOTE: When the temperature falls below freezing, the batteries in the outdoor remote sensors may have reduced voltage supply and a shorter effective range. We recommend using lithium batteries at temperature  $32^{\circ}$  (0°C) and below.

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## BATTERY INSTALLATION REMOTE SENSOR

NOTE: Install the batteries; select temperature unit  $C^{\circ}$  or  $F^{\circ}$  before mounting the remote sensor

- Remove the screws from the battery compartment with a small Phillips screwdriver.
- Install 2 "AA" size alkaline batteries (not included) matching the polarities shown in the battery compartment.
- 3. Replace the battery compartment door and secure the screws.
- 4. Secure remote sensor in the desired location.

#### MAIN UNIT

- 1. Open the battery compartment door.
- Install 2 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 unit batteries need replacement.

## HOW TO USE THE TABLE STAND

The main unit has a removable table stand that supports it on the flat surface. Attach table stand to the bottom of the main unit in the slots provided. The unit can also be mounted on the wall using the recessed screw hole. The table 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 sensor will transmit temperature readings at 45 second intervals.

The main unit may take up to two minutes to receive the initial readings. Upon successful reception, remote temperature will appear on the top line of the main unit's display. The main unit will automatically update readings at 45-second intervals. If no signals received from the remote sensor within two minutes, dashes [\*\*] will be displayed. Press and hold **DOWN** ( $\mathbf{V}$ ) button on the main unit for two seconds to initiate another signal search.

# CHECKING REMOTE AND INDOOR TEMPERATURES

The remote temperature information line is located on the top of the main unit's display.

The wave icon is located above the remote channel number and indicates the reception status from the remote sensor. There are three following types of the reception status that may be displayed.

The unit is in searching mode.	
Temperature readings are securely registered.	(ب ا
No signals detected.	••. °F

The indoor temperature with the icon **IN** is located below the remote temperature information line.

NOTE: If the indoor or remote temperature goes above or below operating range stated in specifications, the main unit's display will show dashes [\*\*-].

# WWVB RADIO CONTROLLED TIME

The NIST (National Institute of Standards and Technology) radio station (WWVB) is located in Ft. Collins, Colorado. It transmits an exact time signal continuously throughout the most of the continental United States at 60 KHz frequency. The Wireless Thermometer can receive this WWVB signal through the 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 receives the atomic time signal from the NIST Atomic clock in Boulder, Colorado. The WWVB tower icon on the main unit's display will flash indicating a radio signal reception from the WWVB station. If the tower icon is not fully lit, or if the time and date are not set automatically, please consider the following:

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

- Make sure the main unit is positioned at 8 feet (2 meters) distance from any interference source such as a TV, computer monitor, microwave, etc.
- Within concrete wall rooms such as basements or office buildings, the received signal may be weakened. Always place the unit near the window for better reception.

#### MAXIMUM AND MINIMUM READINGS

The maximum and minimum record of the indoor and remote temperatures will be automatically stored in the memory of the main unit (receiver).

To display the minimum, maximum or the current reading press **MEM** button.

If no button is pressed for the next 15 seconds, the unit will return to the current temperature display.

To clear the memory, press and hold **MEM** button for two seconds and all previously stored readings will be erased.

#### TEMPERATURE TRENDS

The temperature trend indicators located on the indoor and remote temperature information lines show the trend of temperatures collected indoors and at particular remote sight. There are three trends that can be displayed: Rising, Steady, and Falling.

## LOST COMMUNICATION

If the main unit display line for the remote sensor reading goes blank, press and hold **DOWN** ( $\checkmark$ ) 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 unit and remote sensor is not over 100 feet (30meters).
- The path between units is clear of obstacles. Shorten the distance if necessary.

- Fresh batteries are installed correctly in both remote sensor and main unit.
- If there is no reception, please perform the following steps:
- 1. Bring the main unit and remote sensor close together.
- Remove four (4) small screws from the back of the remote sensor with small Phillips screwdriver, 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.
- The remote temperature appeared on the main unit's display will show that transmission is being received successfully.

## TRANSMISSION COLLISION

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

## ATOMIC CLOCK

After the main unit receives information from the remote sensor, the atomic time signal receiver will start to search for the time signal. It usually takes between 5-8 minutes. Once the atomic time signal is received, the date and time will be set automatically, and the  $\left[ \bigcap \right]$  icon will appear under the US Time Zone Map icon.

If the time signal has not been received in 8 minutes, press **MODE** button to set the time and date manually.

After the unit is set manually, place it by the window for the better reception. The unit's atomic clock receiver is programmed that it will continue to search for the atomic time signal daily for every hour between 1:00 am and 4:30 am. Once the time signal has been successfully received, 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 of day with seconds and time of day with the day of the week.

#### MANUAL SETTINGS TIME ZONE

- Press MODE button to select time of day with day of the week display mode.
- Select the Time Zone by pressing and holding the UP (▲) button for 3 seconds.
- Keep holding UP (▲) button until the desired time zone (Pacific, Mountain, Central or Eastern) is highlighted on the main unit's display map.

# CLOCK

- Press and hold MODE button for 3 seconds: the year digits will flash.
- Press UP (▲) or DOWN (▼) to change flashing digits.
- After the first value is set, press MODE button again to confirm.
- Continue setting month, date, 12 or 24 hour time format, hour, minute, day of the week display language and Fahrenheit or Celsius display.
- Press MODE for the last time to return to the default mode (time of day with seconds) after the last parameter is set.

## ALARMS

Weekly Alarm (( W )

The alarm will sound and the alarm icon will flash at the set time Mondays through Fridays.

Single Day Alarm (((S)

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 for remote location (**PRE-AL**) If the remote temperature reaches 32° 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 earlier than the day of the week or single alarm time. Press and hold **ALARM** button for two seconds in Pre-Alarm mode to set the pre-alarm interval.

((W (Weekly 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 mby pressing the **UP** (▲) or **DOWN** (♥) buttons in the selected alarm display mode. Press **ALARM** button to toggle between alarm modes or to return to the default display.

# SETTING THE ALARM

To set any alarm,

- Press ALARM button once to display alarm time. If the alarm is off, OFF will be displayed.
- Press and hold ALARM button for two seconds. The hour digit will flash.
- Enter the hour using DOWN (▼) or UP (▲).
- Press ALARM button again. The minute digits will flash.
- Enter the minutes using DOWN (▼) or UP (▲).
- Press ALARM button again to exit.
- · Repeat the same procedure to set a Single and Pre-Alarm.

# SNOOZE

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

## DISABLING ALARM

Press ALARM button on the main unit to disable any of the alarms.

When Weekly, Daily or Pre-Alarm is disabled, an applicable icon  $(\mu W)$ ,  $(\mu S)$ , or Pre-Al will disappear from the main unit's 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 Main Unit

Indoor Temperature Proposed operating range

: -5.0°C to +50.0°C/ 23.0°F to 122.0°F : 0.1°C/0.2°F

 

 Temperature resolution
 : 0.1°C/0.2°F

 User-selectable (F° or C°) temperature display

 Low battery indicator

 Calendar and Clock

 12/24 hour display in hh: mm format

 Date format: month – day format

 US Time Zone map

 Day of the week: User-selectable in five languages (English, Spanish, French, German, Italian)

 Dual 4-minute crescendo alarms with a 5-minute snooze

 Freeze pre-alarm with programmable time intervals

 Wall Mount or Desktop option

#### Remote Sensor

Remote Sensor Remote Temperature Proposed operating range with	
alkaline batteries	: -20.0°C to + 70.0°C/ -4.0°F to + 158°F
Proposed operating range with lithium batteries	: -38.8°C to + 70.0°C/ -38.0°F to +158°F
Temperature resolution Low battery indicator	: 0.1°C/0.2°F
RF Transmission Frequency	: 433 MHz
Maximum number of remote sensors	: 1 (included)
RF transmission range	: Maximum 100 feet (30 meters)
Temperature transmission cycle	: approximately 45 seconds
Power	
Main unit : 2 AA size (UM-3) 1.5 Remote Sensor : 2 AA size (UM-3) 1.5	5V batteries (not included) 5V batteries (not included)
<b>Dimensions</b> Main unit : 2.64(L) x 4.84(H) x 1 Remote sensor : 2.37(L) x 4(H) x 1(D)	

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#### 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 cocordance with the instructions, may cause harmful interference to radio communications.

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 improve or correct turning 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.: TE22W Product Name: Wireless Thermometer with Atomic Time 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: 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 a contact for support or sales. Please call our customer service hotline (refer to the Standard Warranty Information) for all injuries instead.

# STANDARD WARRANTY INFORMATION

This product is warranted from 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 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.