



MEADE[®]
INSTRUMENTS



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Wireless Indoor/Outdoor Thermometer with Alarm Clock

Meade Instruments Corp.

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All user manual contents and information are subject to change.

TE109NL-M
USER MANUAL

INTRODUCTION

Thank you for selecting a Meade Instruments Wireless Indoor/Outdoor Thermometer with Alarm Clock. This device combines precise time keeping, alarms and temperature monitoring features that you can use from the comfort of your home.

Meade Instruments is the world's leading designer and manufacturer of telescopes for professional and amateur astronomers – famous for its innovative, high performance telescopes at affordable prices. Meade Instruments now brings that same passion for innovation and high performance to its own line of precision, feature rich weather stations.

In this package you will find:

- One (1) Main unit (receiver)
- One (1) remote sensor (transmitter) TS03-M
- One (1) user manual

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

A THREE-LINE DISPLAY

Allows easy reading of indoor or outdoor temperature and calendar clock

B MEMORY [MEM] BUTTON

Recalls maximum or minimum temperature

C MODE BUTTON

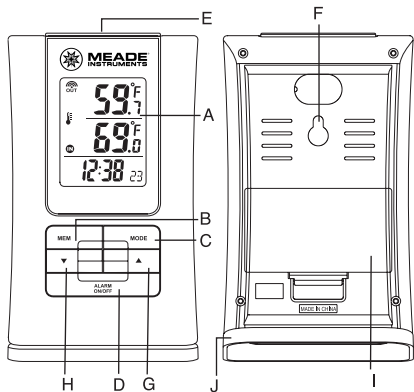
Changes display modes and confirms settings

D ALARM ON/OFF BUTTON

Displays the alarm time and sets the alarm status

E SNOOZE BUTTON

Activates the snooze



F WALL-MOUNT RECESSED HOLE

Attaches the main unit to a wall

G UP (▲) BUTTON

Increases the setting

H DOWN (▼) BUTTON

Decreases the setting

I BATTERY COMPARTMENTS

Accommodates two "AA" size 1.5V alkaline batteries

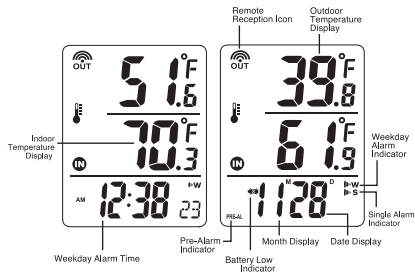
J REMOVABLE TABLE STAND

Holds unit in upright position on a flat surface

FEATURES

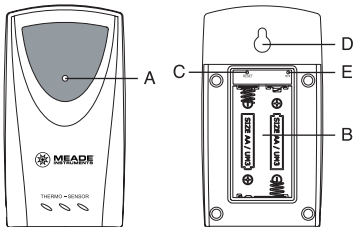
MAIN UNIT

- * Time display shows hours, minutes and seconds
- * Calendar display with month and date
- * User-selectable 12/24 hour time format
- * Weekday displayed in 5 different languages- English, Spanish, French, German or Italian
- * User-selectable temperature display in °C or °F
- * Indoor temperature display
- * Remote temperature monitored from the remote sensor via 433 MHz frequency band (one remote sensor is included)
- * Wall mount or desktop option
- * Dual crescendo alarm with snooze
- * Programmable low-temperature pre-alarm warns about icy or inclement weather conditions prior to regular alarm time



REMOTE TEMPERATURE SENSOR

- * Remote temperature transmission to the main unit via 433MHz signal
- * Case can be wall mounted using built-in hanger
- * 100 feet transmission range without interference
- * Selectable temperature display (choose °F or °C)



A LED INDICATOR

- Flashes once when the remote unit transmits a reading
- Flashes twice when battery power is low

B BATTERY COMPARTMENT

- Accommodates two AA-size batteries

C RESET

- Resets all previous settings

D WALL-MOUNT RECESSED HOLE

- Keeps remote sensor on the wall

E °C/ °F SWITCH

- Selects the temperature display in Fahrenheit or Celsius

BEFORE YOU BEGIN

1. We recommend using alkaline batteries for main unit and remote sensor.
2. Avoid using rechargeable batteries .
3. Insert batteries before first use, matching the polarity as shown in the battery compartment
4. Always insert batteries in the remote sensor first.
5. Press **RESET** after each battery change, using a paper clip or similar tool.
6. During the initial setup, place the main unit as close as possible to the remote sensor.
7. After reception is established, position the remote sensor and main unit within the effective transmission range of 100 feet.

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

BATTERY INSTALLATION TEMPERATURE SENSOR

NOTE: Install the batteries; select the channel and temperature unit (°C/°F) before you mount the remote sensor.

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

BATTERY INSTALLATION MAIN UNIT

The thermometer uses 2 “AA” batteries (not included). When the LCD becomes dim or the respective low battery indicator shows up on the indoor or remote temperature display, battery replacement is required.

To install or replace the batteries, please follow these steps:

1. Remove the battery compartment door on the back of the main unit.
2. Insert 2 “AA” size batteries (not included) matching the polarities shown.
3. Replace the battery compartment door.

HOW TO USE THE TABLE STAND OR WALL MOUNTING

The main unit has a removable table stand, that supports the unit on a flat surface. The 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

1. After the batteries are installed, remote sensor will start transmitting readings at about 45 second intervals.
2. The main unit may take up 2 minutes to receive the initial readings.
3. Upon successful reception, the remote temperature will be displayed on the top line of the main unit LCD display and the indoor temperature will be displayed below the remote one.
4. The main unit will automatically update readings at 45-second intervals.

FUNCTION KEYS

Your thermometer has 5 easy- to -use function keys that control operation:

Use the **MODE** button:

- * To set the time manually.
- * To view the calendar.

Use the **↑** button:

- * To increase the hour, minute, year, month and date.
- * To select 12/24 hour format.
- * To select temperature display unit (°C or °F).
- * To select the weekday language.

Use the **↓** button:

- * To decrease the hour, minute, year, month and date.
- * To select 12/24 hour format.
- * To select temperature display unit (°C or °F).
- * To select the weekday language.
- * To search for the remote sensor signal.

Use the **MEM** button:

- * To view the maximum or the minimum indoor or remote temperature.
- * To clear the previous temperature records.

Use the **ALARM ON/OFF** button:

- * To view the weekday alarm, single alarm or the pre-alarm.
- * To set the alarm times.
- * To turn off any alarm.

CALENDAR CLOCK DISPLAY MODES

The time, the alarm time and the calendar share the same section of the display. The seconds field in the time display and the day of the week share the same section of the display. The calendar is displayed in the month and day format.

1. The time with seconds will be displayed when the time is set.
2. Press **MODE**: the time with the day of the week will be displayed.
3. Press **MODE** again: the calendar in month and day format will be displayed.

THE DATE AND TIME SETTING

1. Press and hold **MODE** for 3 seconds: The year digit will flash. Press **↑** or **↓** to select the year.
2. Press **MODE** again: The month digit will flash. Press **↑** or **↓** to select the month.
3. Press **MODE** again: The date digit will flash. Press **↑** or **↓** to select the date.
4. Press **MODE** again: The “12 Hr” digit will flash to prompt for 12/24 hour display format selection. Press **↑** or **↓** to select “12 Hr” or “24 Hr”.
5. Press **MODE** again: The hour digit will flash. Press **↑** or **↓** to select the hour.
6. Press **MODE** again: The minute digit will flash. Press **↑** or **↓** to select the minute.

LANGUAGE SETTING

The weekday may be displayed in one of five languages: English, Spanish, French, German, or Italian.

1. After the minute is set, press **MODE**, and the weekday display will indicate the current preset language, “EN” for English.
2. Press **↑** to set the desired language for the weekday display. The selection sequence is ① “EN” for English, ② “DE” for German, ③ “FR” for French, ④ “IT” for Italian, and ⑤ “SP” for Spanish.

°C or °F TEMPERATURE DISPLAY SELECTION

1. When the weekday language is set, press **MODE**.
2. “°F” will flash to prompting the Fahrenheit display.
3. Press **↑** or **↓** to select desired temperature display: “°F” for Fahrenheit or “°C” for Celsius.

EXITING THE MANUAL SETTING MODES

- * When the temperature display is set, press **MODE** to return to the default hours, minutes and seconds display.
- * If there is no key pressed for 30 seconds, the unit will return to the default time display.

VIEWING THE ALARM TIME SETTINGS

There are 3 different alarms available: Weekday alarm, Single alarm and the Pre-alarm.

* Weekday Alarm

The alarm will sound and alarm icon “**Ⓜ**” will flash at the set time, Monday through Friday.

* Single Alarm

The alarm will sound and the alarm icon “**Ⓢ**” will flash at the set time. Once it is finished, it will be disabled automatically.

This is useful for weekends, holidays or any day when you wish to wake at a time other than your normal weekday alarm time, no need to reset your regular alarm time. This alarm can be bypassed during the set up if you choose not to use it.

* Pre-Alarm

If the remote temperature is 32°F 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.

This alarm will only sound if either the weekday or single alarms are armed. This can help you avoid delays caused by icy conditions by waking you earlier in case of a potential ice or snow. This alarm can be bypassed during the set up if you choose not to use it. If the calendar is displayed, pressing **ALARM ON/OFF** will display the weekday alarm. Each press on **ALARM ON/OFF** button will display the next available alarm in the sequence of Weekday alarm, Single alarm and Pre-alarm.

Press **MODE** to return to the calendar display.

WEEKDAY ALARM SETTING

1. Press **↑** to view the previous weekday alarm time and arm the alarm.
2. Press **↓** to disarm the weekday alarm and have the display read “OFF”.
3. When the weekday alarm time is visible, press and hold **ALARM ON/OFF** for 3 seconds.
4. The alarm hour digit will flash, then press **↑** or **↓** to adjust the desired hour.
5. Press **ALARM ON/OFF** again, the alarm minute digit will flash, then press **↑** or **↓** to adjust the desired minute.
6. Press **ALARM ON/OFF** again and the weekday alarm is set with the icon “**Ⓜ**” on the display.

SINGLE ALARM SETTING

Press **ALARM ON/OFF** to select the single alarm. If the alarm is disarmed, the alarm time will be displayed as “OFF”. If you choose not to set the **SINGLE ALARM** press **ALARM ON/OFF** again to advance to the **PRE-ALARM** setting procedure.

1. Press **↑** to view the previous single alarm time and arm the alarm.
2. Press **↓** to disarm the single alarm and have the display read “OFF”.
3. When the single alarm time is displayed, press and hold **ALARM ON/OFF** for 3 seconds;
4. The alarm hour digit will flash, then press **↑** or **↓** to adjust the desired hour.
5. Press **ALARM ON/OFF** again, the alarm minute digit will flash, then press **↑** or **↓** to adjust the desired minute.
6. Press **ALARM ON/OFF** again and the single alarm is set with the icon “**Ⓢ**” on the display.

PRE-ALARM SETTING

Press **ALARM ON/OFF** to select the pre-alarm. If the alarm is disarmed, the alarm time will be displayed as "OFF". The pre-alarm can be set only if the weekday alarm or the single alarm is set. If you choose not to set the **PRE-ALARM** press **ALARM ON/OFF** again to exit the setting procedure.

1. Press **↑** to view the previous pre-alarm time and arm the alarm.
2. Press **↓** to disarm the pre-alarm time and have the display read "OFF".
3. When the pre-alarm time is displayed, press and hold **ALARM ON/OFF** for 3 seconds.
4. The minute digit will flash, then press **↑** or **↓** to adjust the desired pre-alarm period in the sequence of 15, 30, 45, 60, 75, 90 minutes.
5. Press **ALARM ON/OFF** again and the pre-alarm is set with the icon "PRE-AL" on the display.

USING THE ALARM AND SNOOZE

When the alarm sounds, press the **SNOOZE** key to temporarily stop the alarm. After depressing **SNOOZE**, 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.

Press **ALARM ON/OFF** to disable any alarm.

LOST COMMUNICATION

If the main unit display for the remote sensor goes blank, press and hold **↓** for 3 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 the main and remote units is not over 100 feet.
3. The path between units is clear of obstacles.
Shorten the distance between units if necessary.
4. Fresh batteries are installed correctly in both remote sensor and main unit.

If this does not work, please perform the following steps:

1. Bring the main unit and remote sensor close together.
2. Remove all 4 small screws from the back of the remote sensor and open the battery compartment.
3. Remove the batteries from the battery compartment and reinstall them in the same manner. The 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.
5. On the main unit select the same channel number that set on the remote sensor. Outdoor temperature on the display will show that transmission is being received successfully.

Note: When the temperature falls below the freezing point the batteries in the remote sensor will freeze lowering their voltage output and effective range. During prolonged periods of extreme cold it is advisable to bring the remote sensor indoors, if alkaline batteries are being used. We recommend to use lithium ion batteries at temperatures below 32°F.

TRANSMISSION INTERFERENCE

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

CHECKING REMOTE AND INDOOR TEMPERATURE

The indoor temperature is shown on the second line of the main unit display. The remote temperature is shown on the top line of the display. The wave icon near the remote temperature reading indicates that there is good reception from the remote sensor. If no signals are received from the remote unit for more than 2 minutes, dashes “- -” will be displayed.

Press and hold \downarrow button for 2 seconds to activate an immediate signal search.




MAXIMUM AND MINIMUM TEMPERATURE

The maximum and minimum records of the indoor and remote temperature are automatically stored in the memory. The main unit will display the minimum, maximum and the current reading upon each press of the **MEM** button. If the **MEM** button is not pressed, the unit will return to the current temperature display in 15 seconds.

To clear the memory, press and hold **MEM** for 3 seconds. The maximum and minimum readings will be erased.

READING 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	
Temperature readings are securely registered	
No signals.	

CARE OF YOUR WIRELESS THERMOMETER

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 units in water.
2. Do not use any corrosive cleanser or chemical solution on the units. They may scratch the plastic parts and corrode the electronic circuit.
3. Do not subject the units to excessive force, shock, dust, temperature or humidity, which may result in malfunction, shorter electronic life span, damaged batteries and distorted parts
4. Do not tamper with the units internal components. Doing so will invalidate the warranty on the units and may cause unnecessary damage. The units contain no user-serviceable parts.
5. 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 replace both batteries at the same time.
6. Always read the user's manual thoroughly before operating the units.
7. Replace the batteries promptly when necessary (display becomes dim). Remove batteries when not in use.
8. A soft cloth or paper towel may be used to clean your units.
9. Keep the units clean and dry to avoid any problems.

SPECIFICATIONS

Temperature Measurement

Main unit

Indoor Temperature

Optimal operating range : -5°C to +50°C /
23°F to 122°F

Temperature resolution : 0.1°C/ 0.2°F

Remote Sensor

Optimal operating range : -20°C to + 70°C /
with alkaline batteries -4°F to 158°F

Optimal operating range : -38°F to + 158°F /
with lithium batteries (-38.8°C to 70°C)

Temperature resolution : 0.1°C/ 0.2°F

RF Transmission Frequency : 433 MHz

Maximum number of Remote sensors : 1

RF Transmission Range : Maximum 100 feet

Temperature sampling cycle : approximately
45 seconds

Calendar and Clock

12 hour display in hh : mm format

Date Format: Month – Day format

Day of week: User- selectable in 5 languages
(English, Spanish, French, German, Italian)

Dual 4-minute crescendo alarm with snooze

Pre-alarm for ice alert with programmable time intervals

Power

Main unit : 2 x AA (1.5V) batteries
- alkaline are suggested (not included)

Remote Sensor : 2 x AA (1.5V) batteries
- alkaline are suggested (not included)

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 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.
- 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 or an experienced radio/TV technician for help.

DECLARATION OF CONFORMITY

We

Name: Meade Instruments Corp.
Address: 27 Hubble, Irvine, CA 92618
Telephone No.: 1-949-451-1450

declare that the product

Product No.: TE109NL-M
Product Name: Wireless Indoor/ Outdoor Thermometer with Alarm Clock
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.

NOTE: The information above shall NOT be used as a contact for customer support or sales. Please call our Customer Support at 800-626-3233

Battery Safety Instructions

- Always purchase the correct size (4 x 1.5V AA, 15A/15AC ANSI, LR6 IEC), (2 x ANSI/NEDA-5004LC, IEC-CR2032) and grade of battery most suitable for the intended use.
- Replace all batteries of a set at the same time.
- Clean the battery contacts and also those of the device prior to battery installation.
- Ensure the batteries are installed correctly with regard to polarity (+ and -).
- Remove the batteries from any weather station which is not to be used for an extended period of time.
- Remove used batteries promptly.
- Do not mix old batteries with new batteries.
- Do not mix alkaline, lithium, standard (Carbon Zinc), or

rechargeable (Nickel Cadmium) batteries.

Caution:

- If batteries or parts are swallowed, see a doctor immediately.

STANDARD WARRANTY INFORMATION

This product is warranted by Meade Instruments Corp. (MIC) to be free of defects in materials and workmanship for a period of ONE YEAR from date of original retail purchase in the U.S.A. MIC will repair or replace the product, or part thereof, found upon inspection by MIC to be defective, provided the defective part or product is returned to MIC, freight prepaid, with proof of purchase. This warranty applies to the original purchaser only and is non-transferable. Meade products purchased outside North America are not included in this warranty.

RGA Number Required: Prior to the return of any product or part, a Return Goods Authorization (RGA) number must be obtained by writing to Meade's Customer Service Department or by calling 800-626-3233. Each returned part or product must include a written statement detailing the nature of the claimed defect, as well as the owner's name, address, phone number, and a copy of the original sales invoice.

This warranty is not valid in cases where the product has been abused or mishandled, where unauthorized repairs have been attempted or performed, or where depreciation of the product is due to normal wear-and-tear. MIC specifically disclaims special, indirect, or consequential damages or lost profits, which may result from a breach of this warranty. Any implied warranties which cannot be disclaimed are hereby limited to a term of one year from the date of purchase by the original retail purchaser. This warranty gives you specific rights. You may have other rights which vary from state to state. MIC reserves the right to change product specifications or to discontinue products without prior notice. This warranty supersedes all previous Meade product warranties.