

MEADE[®]
INSTRUMENTS

**FIVE-CHANNEL REMOTE
THERMO-HYGROMETER
For Professional
Weather Station TE923W-M**

USER MANUAL

(TS34C-M)

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Introduction


Thank you for selecting a Meade Instruments 5-channel thermo-hygro sensor!

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 innovation and high performance to its own line of precision, feature rich weather stations.

In this package you will find:

- One Five-Channel Remote Thermo-hygrometer (transmitter) (TS34C-M)
- One User Manual

Standard Package Contents

Picture	Components
	Thermo Hygrometer Sensor

Installation

All data measured by this remote sensor is transmitted to the main unit wirelessly, with the operating range up to 328 feet (100 meters) in the open area.

Remote thermo-hygrometers (temperature & humidity sensors) can be placed indoors or outdoors, depending on the area where the temperature and humidity are intended to be measured. If you intend measuring outdoor temperature and humidity, place the remote sensor outdoors.

Note: It is critical to power up and test communication between the remote sensor and the main unit **BEFORE** permanently mounting them outside.

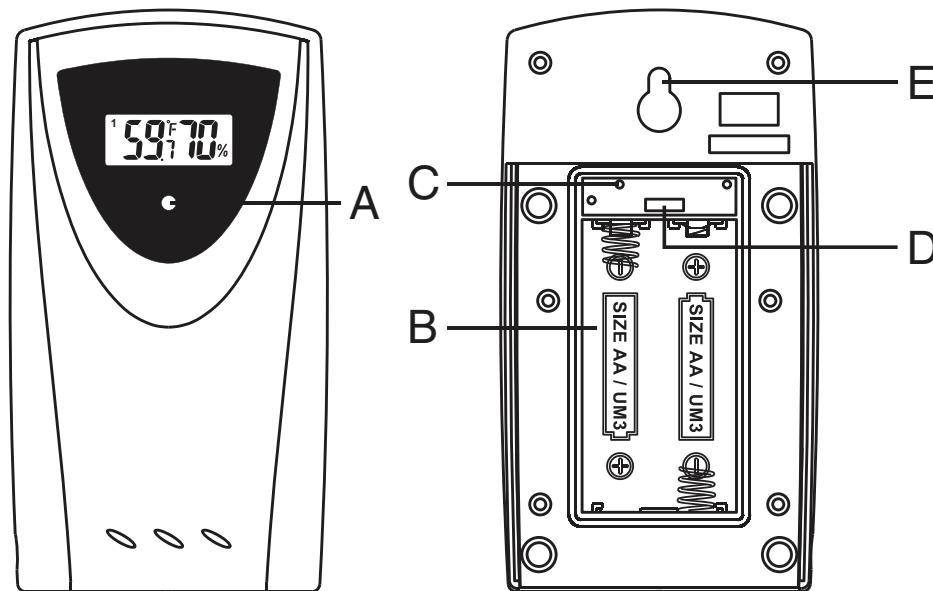
Before you begin

- We recommend using alkaline batteries for the remote thermo-hygrometer when temperatures are above 32°F (0°C) and lithium batteries when temperatures are below 32°F (0°C).
- Avoid using rechargeable batteries. (Rechargeable batteries cannot maintain correct power requirements).
- Insert batteries before first use, matching the polarity in the battery compartment
- Remove protective plastic screen from LCD display (if any).
- During an initial setup, place the main unit close to the remote sensor.
- After reception is established (the remote readings will appear on the main unit's display), position the remote sensor and the main unit within the effective transmission range of up to 328 feet (100 meters). Ideally they should be placed within the line of sight of the main unit.
- Transmission range may be affected by trees, metal structures and electronic appliances.
- The effective operating range may be influenced by the surrounding building materials and how the receiver (main unit) and transmitters (weather sensors) are positioned.
- Place the remote thermo-hygrometer so that it faces the main unit (receiver), minimizing obstructions such as doors, walls and furniture.

Note: When the temperature falls below freezing, the batteries in the outdoor remote thermo-hygrometers may have reduced voltage supply and a shorter effective range. We recommend using lithium batteries at temperatures of 32°F (0°C) and below.

Features

- LCD display of measured temperature and humidity
- Five (5) transmission channels selection
- Case can be wall mounted using built-in hanger



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. RESET

Resets all readings

D. CHANNEL SWITCH

Selects the desired channel from 1 to 5

E. WALL-MOUNT RECESSED OPENING

Keeps the remote sensor on the wall

Note: Install the batteries and select the channel before mounting the sensor.

Battery installation

- Remove the screws from the battery compartment with a small Phillips screwdriver.
- Set the channel 1 through 5. The switch is located in the battery compartment. Channel 1 is typically selected if only one remote thermo-hygrometer is being used.
- Install 2 "AA" size alkaline batteries (not included) matching the polarities shown in the battery compartment.
- Replace the battery compartment door and secure the screws.
- Secure the remote thermo-hygrometer in the desired location.

Mounting

- The remote thermo-hygrometer can be placed on the flat surface or mounted on the wall in vertical position
- Use the wall mount hardware and screws provided when mounting the remote thermo-hygrometer on the wall

Placement tips:

- The remote thermo-hygrometer should be placed in the area with a free air circulation and sheltered from the direct sunlight and an extreme weather conditions.
- Ideally, place the remote thermo-hygrometer above the natural surfaces (such as a grassy lawn).
- Avoid placing the remote thermo-hygrometer near sources of heat such as chimneys and heating elements.
- Avoid any areas collecting and radiating a heat from the sun, such as metal, brick or concrete structures, paving, patios and decks.
- The international standard for the valid air temperature measurements is 4 feet (1.25meters) above the ground.

Note: To display the readings from the remote thermo-hygrometer you must own the main display unit of the Meade Professional Weather Station TE923W-M, model number TE923W-M. Additionally it will work with all other Meade weather station models.

Troubleshooting

Q: "The remote sensor display shows dashes "---"

A: Press the **RESET** opening with a paper clip or similar tool. If this does not work, check the batteries and replace them.

Q: "Main unit display in temperature and humidity portion shows dashes "---"

A: The display will show "- - -" when the wireless connection with the remote thermo-hygrometer is lost for 15 minutes. Check or replace the batteries in remote sensor. Then press and hold **DOWN** button on the main unit to force a search for the remote signals.

If this does not work, check the wireless transmission path from the remote thermo-hygrometer to the main unit and change their locations if necessary.

The following may be the cause of reception problems:

- The remote thermo-hygrometer and a main unit are too far from each other.
- The signal shielding materials, such as metal surfaces, concrete walls or dense vegetation, are in the path of transmission.
- There is interference from the wireless devices (such as cordless phones, radio headsets and baby listening devices) and electronic appliances.

Precautions

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

- 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.
- Do not tamper with the product's internal components. Doing so will invalidate the warranty and may cause damage. The product contains no user-serviceable parts.
- Use only fresh batteries. Do not mix new and old batteries.
- Read the user's manual thoroughly before operating the product.

Specifications

Radio Frequency: 433 MHz

RF Reception range: 328 feet (100 m)

Temperature

Range: -40°F to 122°F (-40°C to 50°C)

Resolution: 0.2°F (0.1°C)

Accuracy: 2°F (1°C)

Transmitting Interval: around 47 seconds

Humidity

Operating Range: 0% to 99%

Resolution: 1%

Accuracy: 5%

Sampling Interval: 10 seconds

Transmitting Interval: around 47 seconds

Power: 2 x UM-3 or AA 1.5V battery

Battery life (alkaline): over 12 months

Weight (without batteries): 2.29oz (65g)

Dimensions: 2.37(L) x 4(H) x 1(D) inches /
60(L) x 101(H) x 25(D) mm

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, installed and used in accordance 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:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- 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: Meade Instruments Corporation

Address: 27 Hubble, Irvine, CA92618

Telephone No.: 1-949-451-1450

declare that the product

Product No.: TS34C-M

Product Name: Five-channel Remote Thermo-Hygrometer

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.

BATTERY SAFETY INSTRUCTIONS

- Always purchase the correct size (2 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.



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