AMPROBE®

TR300

Temperature and Relative Humidity Data Logger

Users Manual
- **Mode d'emploi**
- **Bedienungshandbuch**
- **Manual d'Uso**
- **Manual de uso**
- **Användarhandbok**

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TR300

Temperature and Relative Humidity Data Logger

English

Users Manual

TR300_Rev001

Limited Warranty and Limitation of Liability
Your Amprobe product will be free from defects in material and workmanship for 1 year from the date of purchase. This warranty does not cover fuses, disposable batteries or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Amprobe's behalf. To obtain service during the warranty period, return the product with proof of purchase to an authorized Amprobe Test Tools Service Center or to an Amprobe dealer or distributor. See Repair Section for details. THIS WARRANTY IS YOUR ONLY REMEDY. ALL OTHER WARRANTIES - WHETHER EXPRESS, IMPLIED OR STAUTORY - INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, ARE HEREBY DISCLAIMED. MANUFACTURER SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

Repair
All test tools returned for warranty or non-warranty repair or for calibration should be accompanied by the following: your name, company's name, address, telephone number, and proof of purchase. Additionally, please include a brief description of the problem or the service requested and include the test leads with the meter. Non-warranty repair or replacement charges should be remitted in the form of a check, a money order, credit card with expiration date, or a purchase order made payable to Amprobe® Test Tools.

In-Warranty Repairs and Replacement – All Countries
Please read the warranty statement and check your battery before requesting repair. During the warranty period any defective test tool can be returned to your Amprobe® Test Tools distributor for an exchange for the same or like product. Please check the "Where to Buy" section on www.amprobe.com for a list of distributors near you. Additionally, in the United States and Canada In-Warranty repair and replacement units can also be sent to a Amprobe® Test Tools Service Center (see address below).

Non-Warranty Repairs and Replacement – US and Canada
Non-warranty repairs in the United States and Canada should be sent to a Amprobe® Test Tools Service Center. Call Amprobe® Test Tools or inquire at your point of purchase for current repair and replacement rates.

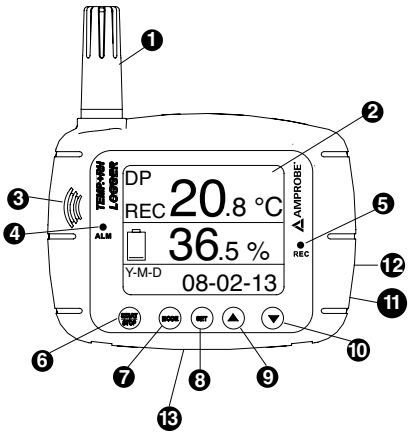
In USA
Amprobe Test Tools
Everett, WA 98203
Tel: 877-AMPROBE (267-7623)

In Canada
Amprobe Test Tools
Mississauga, ON L4Z 1X9
Tel: 905-890-7600

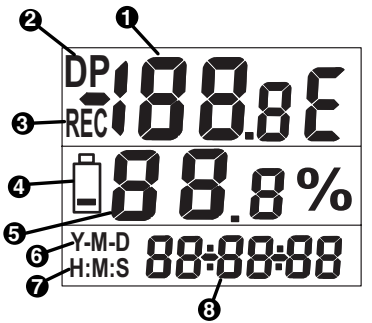
Non-Warranty Repairs and Replacement – Europe
European non-warranty units can be replaced by your Amprobe® Test Tools distributor for a nominal charge. Please check the "Where to Buy" section on www.amprobe.com for a list of distributors near you.

European Correspondence Address*
Amprobe® Test Tools Europe
Beha-Amprobe GmbH
In den Engematten 14
79286 Glottertal, Germany
Tel.: +49 (0) 7684 8009 - 0

*(Correspondence only – no repair or replacement available from this address. European customers please contact your distributor.)



1. Sensor
2. 2.5”X 2.0” LCD display
3. Speaker
4. Alarm LED
5. Record LED
6. Start/Stop to turn on and off the unit
7. Mode
8. Set
9. Up scroll
10. Down scroll
11. 9V DC adaptor (>= 500mA. Depth:9mm Inner: 1.35mm. Outer: 3.5mm) Not Included
12. USB adaptor (USB cable is optional accessory)
13. Tripod mounting screw (tripod not included)



1. Primary display: Displays the measured temperature in °C or °F.
2. **DP:** Dew point indicator
3. **REC:** recording indicator
4. Low battery indicator
5. Secondary display: Displays the air humidity
6. Date indicator
7. Time indicator
8. Date and time display: Alternates between date and time display

CONTENTS

INTRODUCTION

The TR300 Temperature and humidity logger is well suitable to monitor indoor air quality. It is designed with a wall-mounted hook in the back for easy installation. It has a very large LCD display, an audible and visible alarm, and a quick response sensor to help monitor easily the air temperature and humidity. It also has 16K memory capacity storage to record and save continuous readings.

Please read this manual thoroughly before operation. You will find it very easy to operate and a valuable instrument to measure & record the air temperature & humidity.

UNPACKING AND INSPECTION

The standard package of this product contains:

1 X TR300 meter

1 X Instruction Manual

1 X Download Suite CD

1 X USB Cable

4 X AA battery

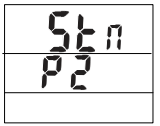
OPERATION

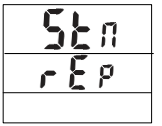
Turn ON and OFF the unit

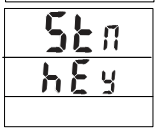
- Press START/STOP pushbutton for less than 1 sec
- The display will show current temperature, humidity, the date and time in alternate fashion.

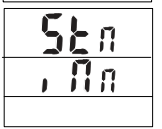
Setting Mode (See Fig 4 for Symbols meaning)

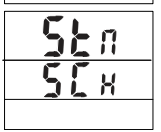
1. Press SET pushbutton to enter the setting mode or use the software program .
2. Use Up and Down pushbuttons to select from:
   - Sample point: 'PtS' & 'P1' show on the display
   - Start mode: Stn' and 'P2' show on the screen
   - Start Time: 'Stt' & 'P3' show on the display
   - Sample rate: 'Sr' & 'P4' show on the screen
   - Alarm set: 'AL' & 'P5' show on the screen
   - Real time: 'rtC' & 'P6' shown on the display





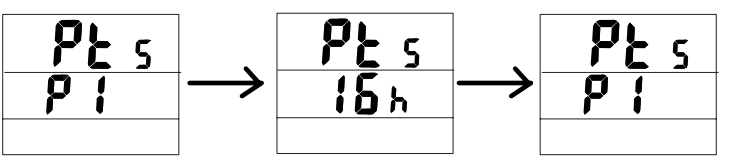






Sample point:

- From 'Pts' & 'P1', press SET key
- Press up and Down pushbuttons to select the sample point from 1h(1000).....16h(16000). The sample point will be divided in half: ½ for temperature and ½ for humidity. Example: 16000 points= 8000 Temp + 8000 RH
- Press SET to save and return to P1
- Press MODE to escape without saving the value



Press Up and Down **Press SET to save**

Start Mode:

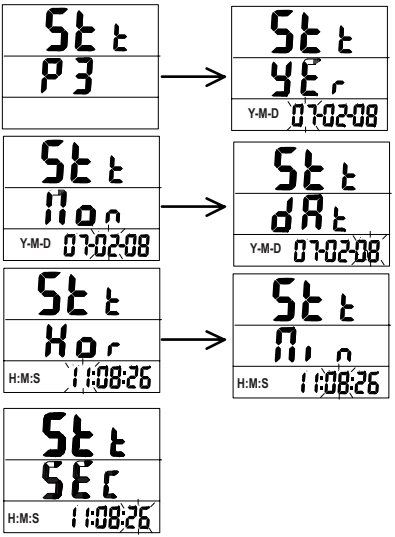
Press Up and Down keys to select from:

- Repeat: 'rEp' is displayed on the bottom of the screen. In this mode the meter will automatically record again once the memories are uploaded to a PC.
  - From 'Stn' & 'P2', press SET key
  - Press Up or Down key to select 'rEp'
  - Press SET to save and return to P2
  - Press MODE to escape

- Key Start: ‘hEy’ is displayed on the bottom of the screen. In this mode, the meter will start recording when you press Start/Stop for more than 2 seconds.
  - From ‘Stn’ & ‘P2’, press SET key
  - Press Up or Down key to select ‘hEy’
  - Press SET to save and return to P2
  - Press MODE to escape
- Immediately: ‘lNn’ is displayed on the bottom of the screen. In this mode, the meter will start recording immediately after you save the setting.
  - From ‘Stn’ & ‘P2’, press SET key
  - Press Up or Down key to select ‘lNn”
  - Press SET to save and return to P2
  - Press MODE to escape and start recording.
  - To stop the recording, press and hold Start/Stop for more than 2 seconds.
- Schedule: ‘SCh’ is displayed on the bottom of the screen. In this mode, the meter will start recording from the preset date and time.
  - From ‘Stn’ & ‘P2’, press SET key
  - Press Up or Down key to select ‘SCh”
  - Press SET to save and return to P2
  - Press MODE to escape

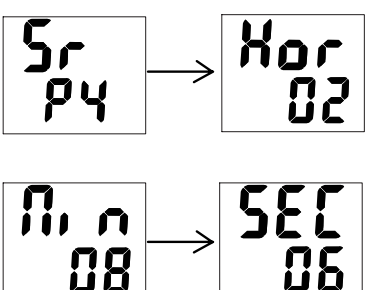
Start Time:

- Press SET to enter the setting mode
- Press Up or Down key to select ‘Stt’ & ‘P3’
- Press SET to enter edit mode for year ‘YEr’
- Press Up or Down key to adjust the year
- Press SET to enter edit mode for month ‘Mon’
- Press Up or Down key to adjust the month
- Press SET to enter edit mode for day ‘dAt’
- Press Up or Down key to adjust the day
- Press SET again to enter the edit mode foe hour’Hor’
- Press Up or Down key to adjust the hour
- Press SET again to enter the edit mode of minute’NI n’
- Press Up or Down key to adjust the minute
- Press SET again to enter the edit mode for Second ‘Sec’
- Press Up or Down key to adjust the second
- Press SET to save the date and time
- Press MODE to quit



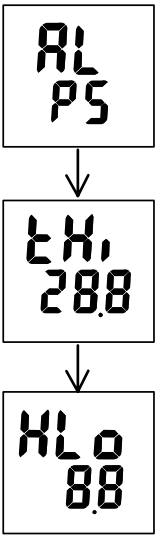
Sample Rate

- Press SET key to enter sample rate mode
- Press Up or Down key to select 'Sr & P4'
- Press SET to enter edit mode for HOUR 'Hor'
- Press Up or Down key to adjust the hour
- Press SET to enter edit mode for MINUTE 'Nl n'
- Press Up or Down key to adjust the minute
- Press SET to enter edit mode for SECOND 'SEc'
- Press Up or Down key to adjust the second
- Press SET to save and return to P4
- Press mode to quit and return to main menu



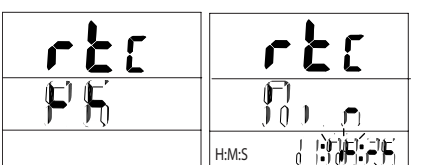
Alarm Set

- Press SET key to enter the alarm setting
- Press Up or Down key to select 'AL & P5'
- Press set key to edit HIGH temperature 'tH'
- Press Up or Down key to adjust the high temperature
- Press set key to edit LOW temperature 'tLo'
- Press Up or Down key to adjust the low temperature
- Press set key to edit HIGH humidity 'HH'
- Press Up or Down key to adjust the high humidity
- Press set key to edit LOW humidity 'HL'
- Press Up or Down key to adjust the low humidity
- Press SET to save and return to P5
- Press MODE to quit and return to main menu



Real Time

- Press SET to enter real time setting
- Press Up or Down key to select ‘rTC & P6”
- Press SET to edit YEAR ‘yEr’
- Press Up or Down key to adjust the year
- Press SET to edit MONTH ‘Non’
- Press Up or Down key to adjust the month
- Press SET to edit DAY ‘dAt’
- Press Up or Down key to adjust the day
- Press SET to edit HOUR ‘Hor’
- Press Up or Down key to adjust the hour
- Press SET to edit MINUTE ‘Mi n’
- Press Up or Down key to adjust the minute
- Press SET to edit SECOND ‘Sec’
- Press Up or Down key to adjust the second
- Press SET to save and return to P6
- Press MODE to quit and return to main menu



Switch from °F to °C

- Press and release MODE key to change from °F to °C

Dew point measurement: DP

- Press and hold MODE key for dew point reading
- Press and release MODE key to change DP from °F to °C
- Press and hold MODE key to return to temperature reading.

INSTRUMENT CONNECTION

1. Plug the RS232 cable to the meter to turn it ON.
2. Connect the meter with the PC using the RS232 provided
3. Start the Download Suite software program

RS232 PC interface capabilities

The RS232 cable and the Download Suite software are required to transfer data to a PC. The RS232 port is located on the right side of the instrument. There is an optional USB converter kit (RS-USB) available for PCs with no available RS232 port.

Download Suite Software installation

Insert the Download Suite CD into the CD-ROM drive.

To install the software, follow the on-screen instructions.

Operation

1. Open the program, double-click the Download Suite icon.
2. Click on work "with instrument" and then "next"
3. Select TR300 and click on "next"
4. Select Program device and click on NEXT . Click on NEXT again to open the programming screen (see Figs 1&2)
5. Setup the parameters and click OK to start recording
6. To download file from the device, repeat steps 1 and 2. Select Download and click NEXT. (See Fig.1)
7. Click NEXT again to start downloading the file. Select the location where you want to store the file and click NEXT, YES or NO, and FINISH
8. Click on "Visualizations" to select digital meter, generic historical graph, or generic historical table.(See Fig.3)
9. Select the parameters you want to visualize and click OK.

NB. Refer to help menu for more details on how to use the Download Suite.

TROUBLESHOOTING

Power on but no display or meter doesn't work .

- Check whether the DC power is connected or not.
- Make sure you press "START/STOP" key for more than 0.1 Sec.
- Check the batteries and see if they make good contact and the polarity is correct.
- Replace the batteries and try again.

Error Codes.

- E02: The value is underflow.
- E03: The value is overflow.
- E04: Wrong value is caused by E02 or E03.
- E11: RH calibration error. Need to re-calibrate.
- E32: IC read/write error. Return the meter for repair.
- E33:Circuit error in measurement portion. Return the meter for repair.

SPECIFICATIONS

Mode	Range
RH %	0.0 ~ 100.0%
Resolution	0.1%
Accuracy	+/-3% @ 10~90%;+/-5% @ others
Temperature	-20°C to 70°C (-4°F to 158°F)
Resolution	0.1°C (0.1°F)
Accuracy	±0.6°C (±1°F) @ 0–50°C (32–122°F); ±1.2°C (±2°F) @ others
Memory	Up to 16K (Temp: 8K + RH: 8K)
Real Time	Yes
USB Port	Yes

Supporting Figure Diagrams

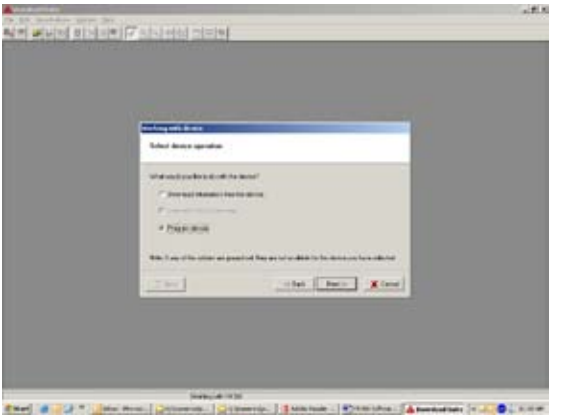


Figure 1

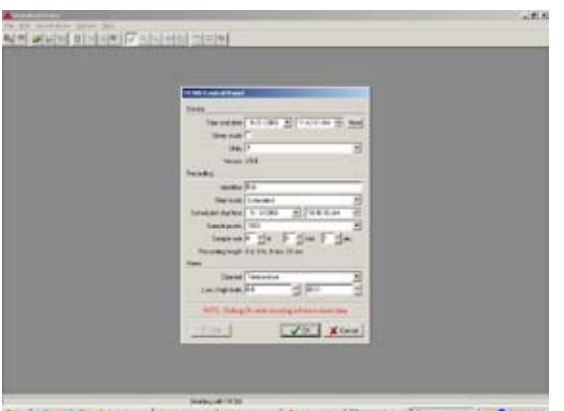


Figure 2

Figure 3

DISPLAY ALPHABET LIST

Display	Meaning	Display	Meaning
	A		C
	d		E
	H		i
	k		L
	m		n
	o		P
	r		S
	t		y

Figure 4