Temperature Guard

Models VM500-3 & VM500-3HT

Home Guard

Model VM500-2

Operating Manual and Installation Instructions

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Temperature Guard Description

The Temperature Guard monitors temperature and power wherever it is located, and dials the programmed emergency phone numbers if the temperature goes out of programmed limits or if the power goes out for more than five minutes.

Programming Overview

Programming the Temperature Guard is accomplished over the phone and only has to be done once, unless it is necessary to make a change. Before programming, do the following:

1   Connect a phone line, plug in the power pack to an outlet, and connect the power jack. **Use of a phone and power line surge suppressor is strongly recommended.** Turn the unit on by moving the power switch from the position labeled 0 to the position labeled 1.

2   From another phone line dial the number where the Temperature Guard is located. The Temperature Guard will pick up after the first ring.

3   The Temperature Guard prompts for the 4-digit PIN number. **Enter the factory default PIN number, 0000**.

4   You will hear the Main Menu options. You may enter your selection at any time.
The Main Menu options are:
     1. Status
     2. Set Limits
     3. Program
     9. Reset High's and Low's (not spoken)
     0. Hang Up

5   To access the Program Menu press 3 at the Main Menu.
     See Program Menu Directions on page 7

Programming Temperature Limits
Model VM500-3

1   From the Main Menu, press 2 to Set Limits
2   You will hear the current low limit (i.e. "*Lower limit is 45°*")
3   You will hear "*Press 1 to change*"
4   Press **1** to make a change or any other button to skip to step 8
5   You will hear "*Enter number then press pound*"
6   Enter the temperature (Valid limits are 35° to 125° F), then press **#**
7   You will hear the value you just entered (i.e. *55°*)
8   You will hear the current upper limit (i.e. *"Upper limit is 85°"*)

9   You will hear "*Press 1 to change*"
10 Press **1** to make a change or any other button to return to the
     Main Menu
11 You will hear "*Enter number then press pound"*
12 Enter the temperature (Valid limits are 35° to 125° F), then press
     #
13 You will hear the value you just entered (i.e. *55°*)
14 You will be returned to the Main Menu

Model VM500-3HT
1   From the Main Menu, press 2 to Set Limits
2   You will hear "Press 1 for temperature or 2 for humidity"
3   Press 1 for temperature
4   Proceed to step 2 above

Programming Humidity Limits
Model VM500-3HT
1   From the Main Menu, press 2 to Set Limits
2   You will hear "Press 1 for temperature or 2 for humidity"
3   Press 2 for humidity
4   You will hear the current low limit (i.e. "*Lower limit is 0%")*
5   You will hear "*Press 1 to change*"
6   Press 1 to make a change or any other button to skip to step 10
7   You will hear "*Enter number then press pound"*
8   Enter the value (Valid limits are 00% to 99% RH), then press #
9   You will hear the value you just entered (i.e. 1*5%*)
10 You will hear the current upper limit (i.e. *"Upper limit is 85 %")*
11 You will hear "*Press 1 to change*"
12 Press 1 to make a change or press any other button to return to
     the Main Menu
13 You will hear "*Enter number then press pound"*
14 Enter the value (Valid limits are 00% to 99% RH), then press #
15 You will hear the value you just entered (i.e. 83%)
16 You will be returned to the Main Menu

Programming Pager Related Values
The following instructions pertain to the Temperature Guard, model VM500-3, and the Temperature and Humidity Guard, model VM500-3HT.

Programming Pager Numbers
The Temperature Guard can call voice or pager numbers. Pager numbers are programmed by programming a * as the first digit of a telephone number.
1   From the Program Menu, Select **1** for the primary number, **2** for the secondary number, **3** for the third number, or **4** for the fourth number.
2   You will hear "*Enter number then press pound*"
3   Enter * then enter the full pager number **(1 + area code if necessary)** followed by the **#** key.
4   You will hear "*star*" and then the telephone number you just entered.
5.   You will be automatically returned to the Program Menu

Programming a Local Identification Number For Pagers
The local identification number is printed on the display of a pager when the Temperature Guard calls a pager number. This number can be up to 20 digits long.
1   From the Program Menu, press **5** for the local ID
2   If this is the first time setup, go to step 6
3   You will hear the programmed number
4   You will hear *"Press one to change"*
5   Press **1** if you wish to make a change or press any other button to return to the Program Menu
6   You will hear "*Enter number, then press pound*"
7   Enter the number, followed by a **#**
8   You will hear the number you just entered.
9   You will be automatically returned to the Program Menu

Home Guard Description

The Home Guard monitors the temperature and power wherever it is located, and dials up to two phone numbers if the temperature goes below 45 degrees or it the power goes out for more than five minutes. It is perfect for monitoring homes while away for the winter.

Programming Overview

Programming the Home Guard is accomplished over the phone and only has to be done once, unless it is necessary to make a change. Before programming, do the following:

1   Connect a phone line, plug in the power pack to an outlet, and connect the power jack. **Use of a phone and power line surge suppressor is strongly recommended.**   Turn the unit on by moving the power switch from the position labeled 0 to the position labeled 1.

2   From another phone line dial the number where the Home Guard is located. The Home Guard will pick up after the first ring.

3   The Home Guard prompts for the 4-digit PIN number. **Enter the factory default PIN number, 0000**.

4   You will hear the Main Menu options. You may enter your selection at any time.
   The Main Menu options are:
      1. Status
      2. Program
      0. Hang Up

5   To access the Program Menu:
      From the Main Menu, press 2

Common Features

This section contains information that applies to both the Temperature and Home Guard products. In this section they will be referred to as Monitor.

Program Menu	
Option	**Function**
1	Program Primary Telephone Number
2	Program Secondary Telephone Number
3	Program Third Telephone Number (VM500-3 Only)
4	Program Fourth Telephone Number (VM500-3 Only)
5	Program Local ID Number (VM500-3 Only)
6	Record Unit ID Message
7	Program Number of Rings
8	Change PIN Number
9	Activate Status Message on Call-in (NOT SPOKEN)
*	Change Temperature Readout Mode (NOT SPOKEN)
0	Exit (return to Main Menu)

Programming Telephone Numbers
The monitor will call each programmed phone number until someone enters the PIN number. If the monitor reaches an answering machine, it will leave the personal identification message, and then the alarm condition, but will continue calling.

First Time Number Programming:
1   From the Program Menu, Select **1** for the primary number, **2** for the secondary number, **3** for the third number (Temperature Guard only), or **4** for the fourth number (Temperature Guard only).
2   You will hear "*Enter number then press pound*.
3   Enter the full phone number **(1 + area code if necessary)** followed by the **#** key.
4   You will hear the number you just entered.
5   You will be automatically returned to the Program Menu.

To Change a Phone Number:

1 Select the appropriate number from the Program Menu
2 You will hear the telephone number for the selected recipient
3 You will hear "*Press one to change"*
4 Press **1** to make a change or any other button to return to the Program Menu
5 You will hear "*Enter number then press pound*
6 Enter the full phone number **(1 + area code if necessary)** followed by the **#** key.
7 You will hear the telephone number you just entered.
8 You will be automatically returned to the Program Menu

To Delete a Phone Number:
1. Select the appropriate number from the Program Menu
2. You will hear the telephone number you selected
3. You will hear "*Press one to change*"
4. Press 1 to make a change
5. You will hear "*Enter number then press pound*"
6. Enter the # key
7. You will be automatically returned to the Program Menu

Adding a delay to access outside phone line
If an extra time delay between digits of a phone number is required, enter * to provide a two second delay.
For example: If a 9 were required to connect with an outside line, and a delay is needed after the 9 and before the number is dialed, program the phone number as follows: 9 * 5 5 5 1 2 3 4 #
The monitor will dial 9, wait 2 seconds and then dial the rest of the phone number.

Programming the Number of Rings
The monitor answers the telephone line after the programmed number of rings. Valid numbers of rings are 1 – 25.
1 From the Program Menu, press **7** to set the number of rings
2 You will hear the programmed number of rings
3 You will hear *"Press one to change."*
4 Press **1** if you wish to make a change or press any other button to return to the Program Menu
5 You will hear "*Enter number then press pound*"
6 Enter the number of rings, then press **#**
7 You will hear the number of rings you entered
8 You will be automatically returned to the Program Menu

Recording a Personal Identification Message

When the monitor calls out, it will first play the recorded personal identification message. The message can be up to 10 seconds in length.

1   From the Program Menu, press **6**
2   If this is the first time recording a message, you will not hear anything. Go to step 4
3   You will hear the recorded message
4   You will hear "*Press one to change"*
5   Press **1** if you wish to make a change or press any other button to return to the Program Menu
6   If you press **1** you will hear a tone
7   Begin speaking after the tone. The Temperature Guard will record for up to 10 seconds.
8   After you are done recording, press any key to mark the end of your message.
9   You will hear the message you recorded.
10 You will be automatically returned to the Program Menu

Programming Your PIN Number

The monitor has a programmable 4-digit PIN number (0000-9999) to access the program menu, and to stop the monitor from making emergency phone calls. The PIN number must be 4 digits and must not include a # sign.

My PIN Number is _____

1   From the Program Menu, press **8** to change the PIN number
2   You will hear the PIN number (factory default is 0000)
3   You will hear "*Press one to change."*
4   Press **1** if you wish to make a change or press any other button to return to the Program Menu
5   You will hear "*Enter number"*
6   Enter a four digit number (do not put a # anywhere in your pin number)
7   You will hear the PIN number you just entered
8   You will be automatically returned to the Program Menu

Enable / Disable the Temperature and Power Status Message

From the factory, the monitor prompts the caller for the PIN number before allowing the caller to hear the current temperature and power status. This prevents anyone from learning that the home is unoccupied. To have the monitor report the temperature and

power without entering the PIN, perform the steps below.

1 From the Program Menu, press **9**
2 You will hear the current setting. Default is "off", the status message will not be broadcast before the PIN has been entered.
3 You will hear "*Press one to change."*
4 Press **1** if you wish to activate the Status Message before PIN
5 You will hear the new setting. "On" will cause the monitor to broadcast the Status Message Before PIN Entry.
6 You will be automatically returned to the Program Menu

Fahrenheit or Celsius Temperature Readings
The monitor can report the temperature in Fahrenheit (default) or Celsius. To switch to Celsius, perform the steps below.
1 From the Program Menu, press *****
2 You will hear the current setting. Default is "C off", the temperature is being output in degrees Fahrenheit.
3 You will hear "*Press one to change."*
4 Press **1** if you wish to change the Temperature Readout Mode and have the temperature output in Celsius.
5 You will hear the new setting, "C on".
6 You will be automatically returned to the Program Menu

Where to Locate the Monitor
The monitor measures temperature and power wherever it is located. If the monitor is being used to protect against freezing temperatures, locate it in an area where the temperature will drop the fastest, if the heating system fails, such as a room with a northern exposure or numerous windows.

If the monitor is being used to protect equipment against overheating in case air conditioning fails, locate the monitor close to the equipment and close to the ceiling where heat will build up quickest.

Once the location is chosen, connect the phone line and power. Turn on the power switch (the light next to the phone line will start blinking at a rate proportional to the temperature). Follow the instructions in the Programming section.

What happens when the Monitor calls?
1 The monitor will play the personal identification message, followed by the cause of the alarm.
2 The monitor will ask for the PIN number
3 Once the PIN number has been entered, the monitor will not call again because the current alarm condition has been acknowl-

edged.
4   If the PIN is not entered, the Monitor will repeat the sequence one time.

What happens if I call the Monitor while an alarm condition exists?
1   If the Status Message Before PIN Entry is Active, you will hear either "Warning, the temperature is XX" or "Warning, the power is out", otherwise you will just hear "Enter your PIN number"
2   If the PIN number is entered, the monitor will stop making emergency phone calls.
3   If the PIN number is not entered, the monitor continues dialing the emergency phone numbers.

What happens when the Temperature Guard calls a pager?
The Temperature Guard will print the Local Identification number
The Temperature Guard will print the temperature.
The Temperature Guard will then print the power status. 1 for power on and 0 for power off.
Example, if you saw 1234**075**1 on the pager's display, 1234 is the user ID, 075 indicates a temperature of 75 degrees, and the last 1 indicates power is on.
The Temperature Guard will continue to call the pager and any other programmed phone numbers until either:
•   The alarm condition goes away OR
•   The Temperature Guard is called and the PIN number is entered
•   The Temperature Guard calls a voice number and contacts a person who enters the PIN number.

Reading the temperature from the blinking light
1   Wait for the light located next to the phone line to be on for approximately 2 seconds.
2   Count the number of blinks until the light is off for 1 second. This number of blinks is the 10's digit of the temperature.
3   Now count the number of blinks until the light is again off for 1 second. This is the 1's digit of the temperature.
4   The temperature is calculated by: (multiply the number of blinks counted in step 2 by ten and then add the number of

blinks counted in step 3. For example, if the number of blinks counted in step 2 is seven and the number of blinks counted in step 3 is two, then the temperature is (7 x 10) + 2 = 72 degrees.

Connecting the Monitor to a Phone Line which has a fax or answering machine connected to it

Program the monitor to answer after one more ring than the other device on the line. This allows the other device to always answer first.
To call and access the monitor
1   Dial the phone number
2   Hang up one ring before the other device answers.
3   Wait no longer than 30 seconds, then dial the number again.
4   The monitor will answer.
Example: An answering or fax machine on the same line as the monitor and is set to answer after 4 rings.
Program the monitor to answer after 5 rings.
To access the monitor, dial the number, let it ring three times, then hang up. Wait 30 seconds and call again. After two rings, the monitor will answer.

Verifying that the Monitor will call all the phone numbers

To verify that the monitor will call all of the programmed phone numbers, perform the following test.
1   Use another phone line and call the monitor.
2   When asked to enter the pin number, enter "**#999**" (including the "pound" sign).
3   **Hang up** after the monitor says "Goodbye"
4   The monitor will call all of the programmed telephone numbers. Do not enter the PIN during this process or the unit will stop calling out.
     You can listen in to verify communication by waiting 10 seconds after hearing "Goodbye" and listening in on a phone on the same line.

If you have DSL at your home, then you must use a DSL filter on the phone line going to the monitor.

If the Monitor does not answer the phone

Verify that the phone line is working. Connect a phone to the line intended for the monitor. Verify that there is a dial tone. Check that the phone line is plugged in securely. Verify that the monitor is powered

up and the status light is blinking.

If the Monitor does not call out
Perform previous steps. Perform the "#999" test call operation on the previous page.

Emergency Phone Call Sequence
<u>Emergency</u>   <u>Calls After</u>
Power Outage   5 minutes
Temperature   Immediately
All phone numbers are called. If the PIN number is not entered, the monitor will wait 20 minutes and then begin calling all phone number again.

Optional 20 / 30 Hour Extended Batteries
If your unit has been ordered with an extended battery, it is installed at the factory. These batteries are trickle charged and can take up to a week to reach full capacity. The battery is charging whenever the monitor is powered on.

Some Helpful TIPS
- If the Temperature Guard is having trouble receiving your pro-gramming entries, try holding the button for a longer amount of time.
- Include all necessary digits for phone numbers. Long distance numbers must include 1 and the area code.
- Do not place the unit in direct sunlight as this will effect the tem-perature and humidity readings.
- Do not place the unit near heating or cooling sources if you wish to monitor the average temperature of a room.
- Placing the unit on the floor will cause the Temperature Guard to sense a temperature that is lower then the actual ambient tem-perature.
- To monitor the power status of specific devices; connect the Temperature Guard's power plug into the same power source as the device you wish to monitor. It is possible for an isolated power outlet to lose power.

Technical Support
860-829-2710 M-F 9:00 am to 4:00 pm EST

FCC PART 68 INFORMATION

This equipment complies with Part 68 of the FCC Rules. The FCC Part 68 Label is located on the bottom of the unit. This label contains the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to your telephone company.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those device ring when your telephone number is called. In most, but not all areas, the sum of the RENs of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

Connection to the telephone network should be made by using standard modular telephone jacks, type RJ11. The plug and/or jacks used must comply with FCC Part 68 rules. If this telephone equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in it's facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance in order for you to make necessary modifications to maintain uninterrupted service.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to tariffs.

If trouble is experienced with this unit, for repair or warranty information, please contact customer service at the address and phone listed below. If the equipment is causing harm to the network, the telephone company may request that you disconnect the equipment until the problem is resolved.

DO NOT DISASSEMBLE THIS EQUIPMENT. It does not contain any user serviceable components.

Attn.: CUSTOMER SERVICE DEPT.
Microtechnologies, Inc.
564 Berlin Turnpike
Berlin, CT 06037
860-829-2710

Limited Warranty:

1. Warrantor: Dealer, Distributor, Retailer, and Manufacturer
2. Warranty and Remedy

We believe that this is a high quality product. Although we test all products for proper functionality, we cannot guaranty that there will never be a defective unit, or that a unit will function on every phone line and all communication equipment in existence. For this reason, it must be clear that the **Warrantors are not insuring your premises or guaranteeing that there will not be damage to your person or property if you use this Product.** If this warranty is unacceptable please return the unused Product for a full refund.

One Year Limited Warranty - Microtechnologies, Inc. warrants its products to be free from defects in material and workmanship under normal use for one year, and is not responsible for consequential damage or installation costs of any nature.   In event that the Product does not conform to this Warranty at any time during the period of one year from original purchase date, Warrantor will repair the defect and return it to you at no charge. **Important: The Warranty is limited to replacement of the Product ONLY.** Secondly, because every phone line differs, we strongly encourage you to test this Product in its actual application.   This should include a full test, involving the Product actually dialing to its designated location and someone verifying the proper response. This warranty shall terminate and be of no further effect at the time the Product is 1) damaged by extraneous causes such as fire, water, lightning, etc. or not maintained as reasonable and necessary: 2) modified: 3) improperly installed: 4) repaired by someone other than the Warrantor: 5) used in a manner or purpose for which the Product was not intended.

WARRANTORS' OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT ONLY. THIS WARRANTY DOES NOT COVER PAYMENT OR PROVIDE FOR THE REIMBURSEMENT OF PAYMENT FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

It must be clear that the Warrantors are not insuring your premises or guaranteeing that there will not be damage to your person or property if you use this Product. The Warrantors shall not be liable under any circumstances for damage to your person or property or some other person or that person's property by reason of the sale or use of this Product, or its failure to operate in the manner in which it is designed. The Warrantor's liability, if any, shall be limited to the original cost of the Product only. Use of this Product is at your own risk.

3. Procedures for obtaining performance for Warranty:

   In the event that the Product does not conform to this Warranty, the Product should be shipped or delivered freight prepaid to a Warrantor with evidence of original purchase. If in any way you are not comfortable with the product or its Limited Warranty, we encourage you to return it unused for a full refund.

Temperature Guard
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