

**TEMPERATURE GUARD PLUS™ VM500-1****REMOTE TEMPERATURE CONTROL, MONITOR, AND AUTODIALER****General Description**

The Temperature Guard Plus is an innovative control and monitoring system that allows the homeowner to raise and lower the temperature of a home with a phone call.

The Temperature Guard Plus monitors the home temperature, security input and power. If the temperature goes out of limits, or the power fails, or the security input opens, the Temperature Guard Plus will call and alert you.

**Features**

- Control up to four temperature ZONES!
- Simple installation...wires between existing thermostats and boiler control.
- Monitors the home's temperature and power.
- Security Input can be wired to a magnetic door switch or other security device.
- Integrated autodialer with voice menus.
- Programmable high and low temperature alarm limits.
- Fail safe operation.
- All programming accomplished over the phone following spoken menus.
- Uses existing phone line. No need for a 2nd phone line.
- Rechargeable 4 hour battery backup included. Extended battery backup available.
- Powered from a wall mount transformer, included.
- Temperature sensor included!

## Functional Description

### Heating Control

The Temperature Guard Plus wires seamlessly between the home's existing thermostats and heating control. An additional "unoccupied thermostat" is installed and set to a reduced temperature. The temperature of the home is raised and lowered by switching between the unoccupied and existing thermostats. The user can switch between the occupied and unoccupied thermostats locally or over the phone.

### Monitoring

The Temperature Guard Plus continuously monitors the home's temperature, power and the security input.

### Alarm Condition

The Temperature Guard Plus will enter alarm condition and begin to make emergency phone calls when the temperature is out of its programmed limits, or the security input is active, or the power is out for longer than five minutes. If the temperature is below the programmed limit, the Temperature Guard Plus will automatically switch into the occupied mode in an attempt to warm the home.

### Emergency Phone Calls

When the Temperature Guard Plus is in an alarm condition, it will dial all programmed phone numbers until contact is made. If contact has not been made after dialing all phone numbers, the Temperature Guard Plus will wait twenty minutes and then begin calling again. This sequence is repeated until contact is made.

During a call to a voice number, the Temperature Guard Plus will play the Local Identification message and the current temperature, and power status. The Temperature Guard Plus will then prompt the user to enter the PIN. When the correct PIN is entered, contact has been made. The Temperature Guard Plus will not call again until a new alarm condition occurs. If Temperature Guard Plus calls an answering machine or voice mail, it will leave the warning message but it will continue to call.

When the Temperature Guard Plus calls a pager number, it will transmit the programmed Local ID Number, temperature, and power status.

### Contact

The Temperature Guard Plus will stop making emergency calls when contact is made. Contact is made by a user entering the PIN number, or by pressing the push-button located on the front of the unit.

The Temperature Guard Plus will also stop making emergency calls when the temperature, and the power return to normal conditions.

### Remote Status Checking

The Temperature Guard Plus can be called anytime to check the temperature, power status.

### Programming

The Temperature Guard Plus is 100% remote programmable. All settings are password protected and stored in nonvolatile memory so that settings are never lost due to a power outage.

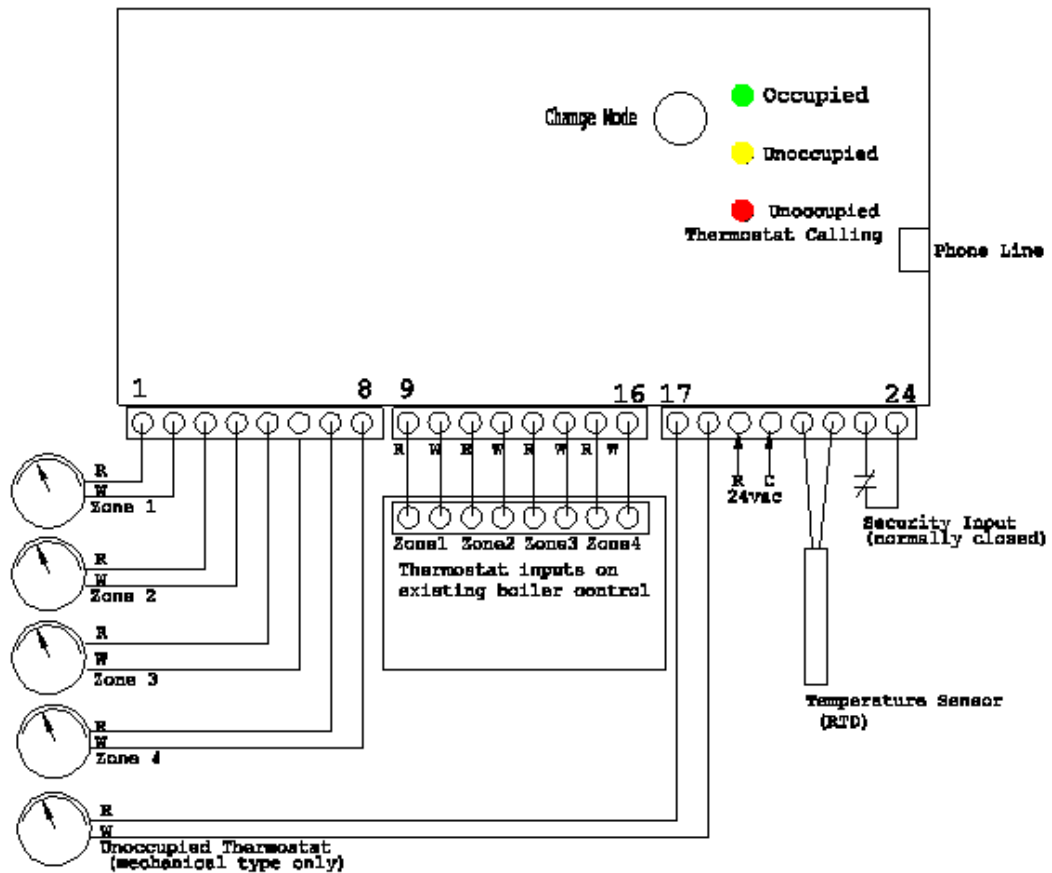
## User Programmable Features

Maximum number of programmable callout numbers: 4  
 Maximum number of digits for callout numbers: 20  
 Maximum number of digits for programmable Local ID displayed when calling a pager: 20  
 Length of Local Identification message: 10 seconds  
 Range of incoming rings before the Temperature Guard Plus answers: 1 to 20  
 Number of digits in programmable PIN: 4  
 Programmable Temperature Limits: 35° to 212° F

## Specifications

|                                   |                                                                               |
|-----------------------------------|-------------------------------------------------------------------------------|
| Power Requirements:               | 120VAC at 60 Hz                                                               |
| Acceptable Wire Gauge for Inputs: | 20 AWG                                                                        |
| Electrical Connections:           | Pluggable 12 position terminal blocks                                         |
| Material:                         | Flame retardant ABS plastic, 94-5VA                                           |
| Dimensions:                       | Enclosure: 8.790" x 4.620" x 2.255"<br>Mounting Flange Holes: 8.250" x 3.500" |
| Ambient Operating Conditions:     | 32°F to 125°F                                                                 |
| Shipping Weight:                  | 2 lbs                                                                         |
| Agency Compliance:                | Temperature Guard Plus FCC Approved and Registered<br>Power Supply UL listed  |

## Connection Diagram



| <b>Options</b>         |                           |                                                                                                                                                                                                              |
|------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Option</b>          | <b>Part Number Suffix</b> | <b>Description</b>                                                                                                                                                                                           |
| 20 Hour battery backup | B20                       | The 20 hour battery backup allows the Temperature Guard Plus to make and receive telephone calls in the event of a power outage for up to 20 hours, depending on the number and duration of telephone calls. |
| 30 Hour battery backup | B30                       | The 30 hour battery backup allows the Temperature Guard Plus to make and receive telephone calls in the event of a power outage for up to 30 hours, depending on the number and duration of telephone calls. |

**Ordering Information**

VM500-1-  
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**1. Battery Option**

- None: Standard 4 Hour Rechargeable Battery
- B20: 20 Hour Rechargeable Battery
- B30: 30 Hour Rechargeable Battery