

## General Description

The VD-6100-TM (Fahrenheit) and VD-6101-TM (Celsius) Freeze Alarm monitors temperature and power status. Upon an alarm condition, the Freeze Alarm automatically dials up to three phone numbers with a voice message. Current temperature and alarm status can be checked from a remote location.

## Applications

Applications include remote temperature and electrical power monitoring of refrigeration, heating and air conditioning equipment for buildings (homes, cabins and commercial buildings).

## Features

- Adjustable temperature alarm setpoint with call out
- Power loss call out alarm
- Three telephone number call out, up to 16 digits each
- Remote access to programming menu and current condition status
- Low battery call out alarm
- Battery back-up (9 volt-not included)
- Location identification
- Custom voice message recording
- Selectable 15 minute or 2 hour call out interval
- Selectable 10 or 3 ring call out
- Security coded access to programming menu
- Dials out in tone or pulse
- LED status indicators

## Specifications

**Power requirements:** 12 VDC (110 VAC/12 VDC plug-in wall transformer with six foot long cord included)

**Sensor:** Semi-conductor sensor with 1.75" x .25" nickel plated copper cap and three foot cord

**Operating range of sensor:** -49° to 199°F (-45° to 93°C)

**Phone cord:** 7 feet long

**Accuracy:**  $\pm 2^{\circ}\text{F}$  ( $\pm 2^{\circ}\text{C}$ )

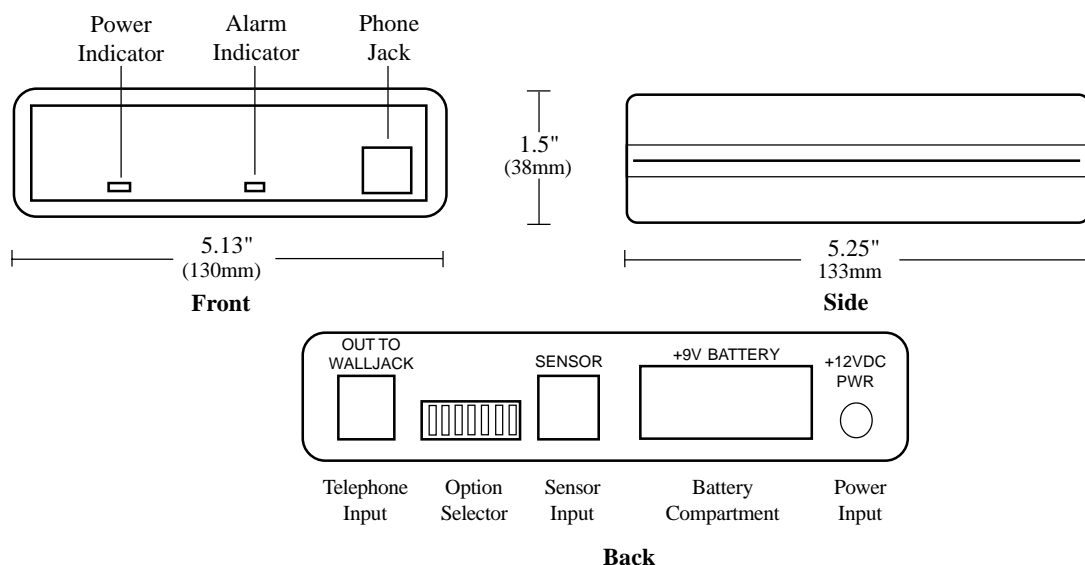
**Ambient temperature range:** 32° to 140°F (0° to 60°C)

**Humidity:** 90% non-condensing

**Weight:** 2.0 pounds (0.91kg)

## Freeze Alarm VD-6100-TM / VD-6101-TM

## Dimensions



## Installation

**IMPORTANT:** It is critical that the Freeze Alarm be tested at the location of actual use since local telephone lines and systems vary and may affect performance (please see warranty).

1. Before starting, please read the **Warranty** on the last page for important information.
2. Connect the temperature sensor to the back of the Freeze Alarm
3. Connect the plug-in power supply to the +12VDC port on the back of the unit and plug into a 110 VAC wall outlet.
4. Install 9 volt alkaline battery (not included) in back of unit. If it is not installed within 5 minutes of the plug-in power supply, a low battery alarm will occur.
5. Select and set dip switch options on back of unit – see Dip Switch Table.
6. Plug any standard Touch Tone™ telephone into the PHONE receiver port located on the front panel.
7. Follow procedure in **Programming Instructions** section described below.
8. After programming is complete, disconnect the telephone from the front port of the Freeze Alarm. Then connect one end of the phone cord to the OUT TO WALL JACK port on the back of the unit, and the other end to a standard telephone jack.

## Programming Instructions

**IMPORTANT:** When the Freeze Alarm is first powered up it will not check any of the alarm conditions for 5 minutes. After this initial 5 minute start up period, the alarm conditions will be checked continuously. The battery voltage will be checked every 10 minutes.

When the programming phone is picked up the alarm conditions are checked and any alarms present are reported. If the call out is active and has not been disabled, the menu will give you the option of disabling the alarm call out. The Freeze Alarm is programmed by following a series of menu driven voice commands and can be reprogrammed remotely or locally from any Touch Tone™ telephone.

*"You are now in the main menu:"*

*"To review or program call out telephone number one, press 1."*

*"To review or program call out telephone number two, press 2."*

*"To review or program call out telephone number three, press 3."*

*"For the current temperature, press 4."*

*"To review or program the (high / low) temperature alarm setpoint, press 5."*

*"To review or program the security code, press 6."*

*"For the battery status, press 7."*

*"For the power status, press 8."*

*"To record a message, press 9."*

If the Freeze Alarm does not recognize an entry, you will hear "invalid entry" and the menu selections will be replayed. Re-enter your menu selection within 15 seconds to continue with the programming sequence.

**IMPORTANT:** After programming, disconnect your telephone from the PHONE receiver port on the front of the Freeze Alarm. The phone cannot be used for outgoing phone calls while connected to the Freeze Alarm.

The menu structure of the Freeze Alarm is shown below. These are the sub-menus that will be played when any of the main menu selections are pressed.

If you press "1", "2" or "3"

*Call out telephone number ( 1 / 2 / 3 ) is now xxxxxxx*

*To change press zero*

*Otherwise to return to the main menu press one*

If a "4" is pressed:

*The current temperature is xxx degrees*

*To return to the main menu press one otherwise hangup*

If a “5” is pressed: (high or low set point is selectable with the DIP switch)  
*(the high / the low) temperature alarm setpoint is now xxxx degrees*  
*To change (the high / the low) temperature alarm set point press zero*  
*Otherwise to return to the main menu press one*

If a “6” is pressed:  
*The security code is xxxx*  
*To change the security code press zero*  
*Otherwise to return to the main menu press one*

If a “7” is pressed:  
*The battery is now ##.## volts*  
*The battery (is in / is not in) an emergency condition*  
*To return to the main menu press one otherwise hangup*

If a “8” is pressed:  
*The power is (off / on) to return to the main menu press one otherwise hangup*

If a “9” is pressed:  
*Greeting message is now [custom message] to change press zero*  
*Otherwise to return to the main menu press one*

The following data must be programmed into the Freeze Alarm:

- A. TEMPERATURE ALARM SETPOINT – temperature at which an alarm call out will be initiated (rise or fall).
- B. CALL OUT TELEPHONE NUMBERS – three telephone numbers to be called in succession during an alarm condition.
- C. SECURITY/LOCATION CODE – three-digit code used to gain access to main menu or disable unit and can also be used to identify location.

## MENU DESCRIPTIONS

CALL OUT TELEPHONE NUMBERS:	Follow verbal prompts to enter call out telephone numbers. You may enter the same number more than once, or enter the star (*) key to leave an entry blank (no number). Pressing the pound (#) key will place a 5 second pause between digits. Do not place pauses at end of telephone number(s).
CURRENT TEMPERATURE:	Reports the current temperature of the sensor.
TEMPERATURE ALARM SETPOINT:	The setpoint is the temperature at which the Freeze Alarm will initiate an alarm call to your programmed telephone numbers. The setpoint will be used as either a high or a low setpoint depending on the position of the DIP switch #7. The setpoint is factory set to activate below –40°. Follow verbal prompts to change the setpoint. The setpoint should be more than ten degrees above or below the room temperature.
SECURITY CODE:	The security code is factory set at "999". Follow verbal prompts to change security code. The security code can also be used as a location ID code.
BATTERY STATUS:	Low battery alarm will occur at 7 volts. <b>Important:</b> Battery should be replaced annually, or when power drops to 7 volts or below. <b>Unplug battery when unit is not in service.</b>
POWER STATUS:	Unit will report that the "power is off" in the event of a power failure.
RECORD A MESSAGE:	A custom greeting message may be recorded. The message can be up to 20 seconds long. When the recording is done, press the starkey (*). The greeting message will be used as follows "Hello, this is [greeting message]"

## Operating Instructions

### UPON ALARM

The Freeze Alarm will call out with one or more of the following messages:

*"There is a temperature alarm emergency at location (your four digit security/location code). Help is needed immediately!"*

AND/OR

*"There is a power alarm emergency at location (your four digit security/location code). Help is needed immediately!"*

AND/OR

*"There is a battery alarm emergency at location (your four digit security/location code). Help is needed immediately!"*

The alarm message(s) is repeated once, followed by:

*"To disable the alarm call out, enter your four digit security code followed by the star key."*

You must enter the correct security code within 15 seconds or the Freeze Alarm will hang up and call again in the selected interval (15 minutes or 2 hours). If you enter the correct security code within 15 seconds you will hear:

*"The alarm call out is now disabled. To return to main menu, press 1, otherwise hang up."*

You now have the option of returning to the main menu to review or change the system data.

**IMPORTANT:** The Freeze Alarm will continue to call out with an alarm message until disabled, even if alarm conditions have been corrected.

### CALLING THE VOICE DIALER FROM A REMOTE LOCATION

When called from a remote location, the Freeze Alarm will answer after five rings and you will hear:

*"Enter the security code followed by the star key."*

If you enter the correct security code within 15 seconds, and the Freeze Alarm is not in alarm, you will enter the main menu and hear:

*"You are now in the main menu. To review or program. . ."*

If the Freeze Alarm is in alarm, you will hear one of the three alarm messages described in **Operating Instructions** above. The alarm message is repeated once, followed by:

*"To disable the alarm call out, press 0. Otherwise, to return to the main menu, press 1."*

For information on compatibility with answering machines, see "IMPORTANT INFORMATION" section.

### IMPORTANT INFORMATION

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|---|---|
| Alarm delay feature:                                    | If dip switch #6 is placed in the DOWN position, the Freeze Alarm will delay 45 minutes during a temperature alarm only. A temperature alarm condition must be present for 45 minutes before unit will call out.                          |
| Power alarm delay feature:                              | The power alarm delay is selectable from either 1 hour or 0 minutes.  |
| Battery alarm feature:                                  | The battery voltage is checked every 10 minutes. A low battery alarm will occur if the voltage drops below 7 volts.   |
| Using Freeze Alarm on the same phone line as telephone: | The Freeze Alarm does not require a dedicated phone line and can share the same jack with a telephone by using a dual plug adapter (not included). Caution: The Freeze Alarm may not work on a PBX or multi-line systems or a party line. |

Phone answering machines at the occupied (call to) location:

To avoid unwanted long distance phone charges between the Freeze Alarm and a remote answering machine, set your answering machine to pick up after four rings and move dip switch #5 on the rear of the Freeze Alarm to the UP position. This will cause the Freeze Alarm to hang up after three rings, preventing the answering machine from picking up the alarm call. **Caution: Because of normal connection delays in long distance calls, the Freeze Alarm may hang up before three rings are heard at call-to location(s). Test thoroughly. If dip switch #5 is in the DOWN position, the Freeze Alarm will hang up after ten rings.** Depending on the length of your greeting, the answering machine may record a portion of the alarm message.

Phone answering machines at the same location as the Voice Dialer:

An answering machine normally will pick up a call before the Freeze Alarm. To gain access to the Freeze Alarm when used with an answering machine, set the answering machine's ring selector at four. Call the Freeze Alarm's phone number and hang up before the answering machine answers. Call back again to accumulate 5 rings within 3 minutes and the Freeze Alarm will pick up your call.

Monitoring multiple Freeze Alarm using identification

Upon alarm, the Freeze Alarm calls its programmed telephone numbers and announces the location of the alarm, using the custom greeting message and the SECURITY CODE as a location numbers: identification number. This enables you to identify an infinite number of Freeze Alarm locations.

Dip switch table:

Factory settings are indicated in the DOWN position

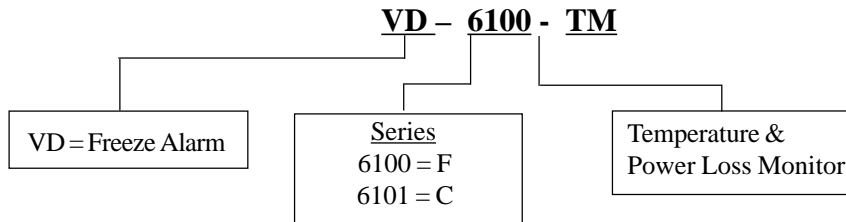
Switch #	Function	Settings	
1	Pulse / Tone dial out	UP = pulse	DOWN = tone
2	1 hour power alarm delay call out	UP=immediate	DOWN = on
3	Power alarm monitoring	UP = off	DOWN = on
4	Select 15 minute or 2 hour call out frequency	UP = 2 hrs	DOWN=15min
5	Select between 10 or 3 ring call out	UP = 3	DOWN = 10
6	45 minute alarm delay call out	UP=immediate	DOWN = on
7	Select for alarm on temperature fall or rise	UP = rise	DOWN = fall

## Troubleshooting

<u>Problem</u>	<u>Solution</u>
1. Unit does not function . . . . .	Check power supply and phone line service.
2. Phone does not ring at "call-to" location . . . . .	Review telephone number and re-program. Place Switch #5 in the "DOWN" position.
3. Cannot access Freeze Alarm (same location) . . . . .	Make sure Touch Tone™ telephone is plugged into front face plate. Try another phone.
4. Cannot access Freeze Alarm (remote location) . . . . .	Make sure Touch Tone™ telephone is being used. Check Freeze Alarm power and telephone connections. Try another phone. Verify security code.
5. Receiving false alarms . . . . .	Do not place temperature sensor near heat vents, drafts, or other areas that do not represent the internal temperature being monitored. Raise or lower thermostat accordingly. Check rise and fall switch on back of unit to verify correct position.
6. Temperature reading -49° . . . . .	Check sensor connection to correct jack.

## Ordering Information

Please use the following example when ordering:



Other models are available: VD-6300-MCS Freeze Alarm and VD-6300-MCS-02 Freeze Alarm.

## Custom Design & Modifications

In addition to standard models, Control Products specializes in complete custom design of electronic controls. Modifications of our standard controls are also available. Please consult factory for more information.

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### IMPORTANT

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## Limited Warranty

### 1. Warrantor: Dealer, Distributor, Retailer, Manufacturer

### 2. Warranty and Remedy:

We believe this is a very fine product. Over the years, we have received many calls and letters from folks with thanks and stories on how our product alerted them to a potentially costly freeze-up. We have also heard from a few unhappy folks complaining that this product did not alert them during a freeze-up. Although we take extreme pride in producing and testing a product that will function properly, we cannot guaranty that there will never be a defective unit, or that a unit will function on all of the thousands of phone lines and 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 you are not comfortable with our Limited Warranty, or completely satisfied with the Product, we encourage you to return the unused Product for a full refund. Thank you for your understanding.

**One Year Limited Warranty - Control Products, 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 damages or installation costs of any nature.** In the 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 stongly encourage you to fully 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 Warrantors' 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 return it unused.**