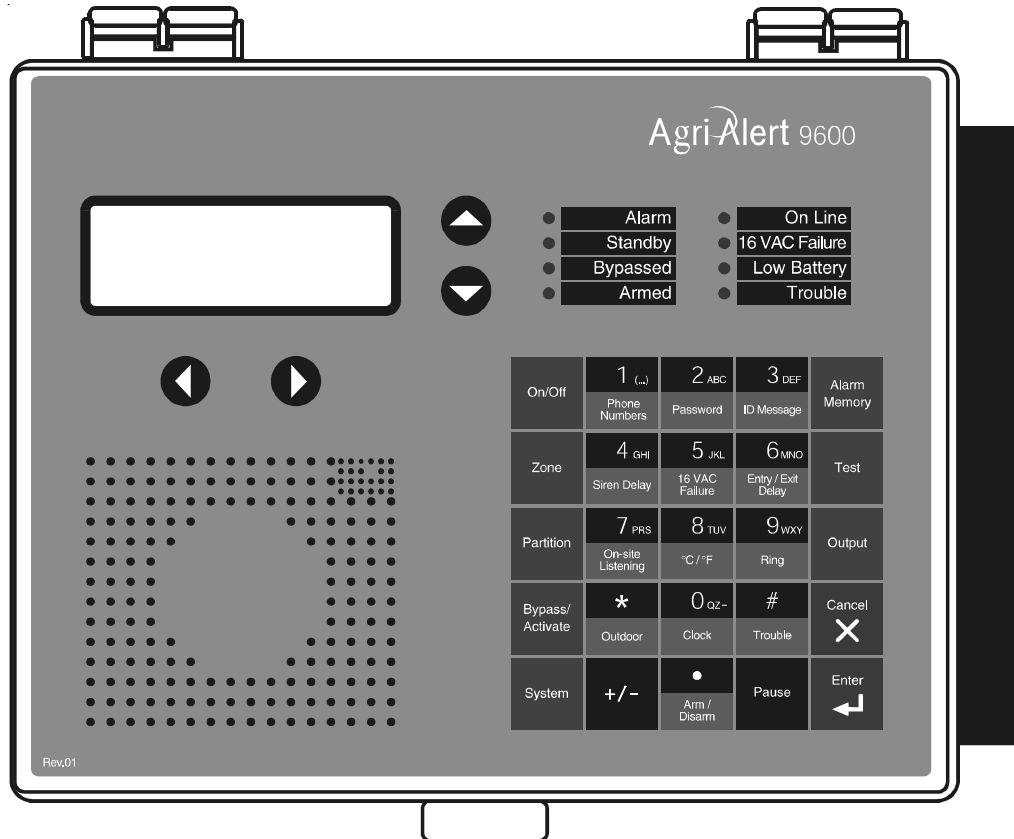# AGRI-ALERT 9600
ALARM SYSTEM

INSTALLATION MANUAL

Manufacturer:

VIATRON
ELECTRONIQUE • ELECTRONICS

Viatron Electronics
3514 1st Street,
St-Hubert (Quebec)
Canada
J3Y 8Y5

WARNING: the warranty can be void if the Agri-Alert 9600 is used in a manner not
specified by the manufacturer.

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

NOTICE

Every effort has been made to ensure that this manual is complete, accurate and up-to-date. The information contained in it is however subject to change without notice due to further developments.

SYSTEM OVERVIEW

The Agri-Alert system is a complete alarm detection and management system for agricultural applications. It can handle up to 96 alarm inputs spread over several buildings. The following diagram shows how the different components are connected together.
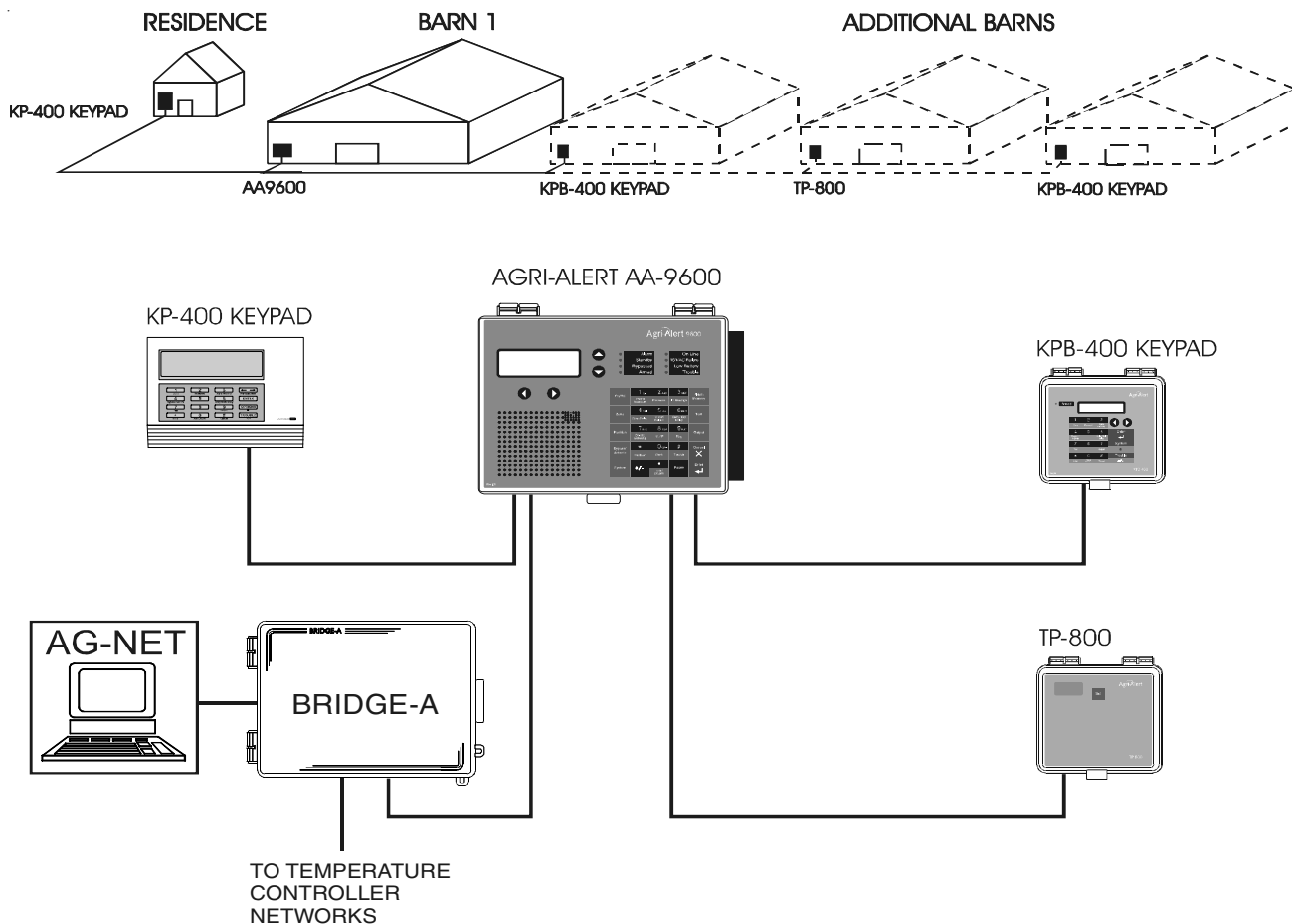
Figure 1: AA9600 Installation Layout

DEVICE DESCRIPTIONS

The complete system can include up to 98 devices.

AA-9600: the main system with 8 basic zones, two relays and one microphone. Two extension cards can be added allowing 16 additional zones.

TP-800: a remote extension device that adds 8 zones and a programmable output to the main system.

KP-400: a keypad for displaying system data from a remote location. Includes 4 dry contact, burglar or temperature zones and one programmable output.

KPB-400: a dust- and moisture-tight keypad for displaying system data from a remote location. Includes 4 dry contact, burglar or temperature zones and one programmable output.

RB-800: a device containing 8 relays that the user can program as a function of zone status.

LB-9600: a device containing 96 LEDs for indicating zone status.

BRIDGE: a computer communication device. Allows the user to operate the complete system from a computer keyboard or modem. Datalogs up to 4 Agri-Alert systems (4 X 96 zones). When used with a Combridge-1 card, the Bridge is compatible with AgBus, allowing the Agri-Alert to fetch temperature readings from existing controller networks (see section 3.4.3).

KEYS TO SYMBOLS IN THE MANUAL

Caution. Carefully read the following text for it contains important information which, if ignored, may cause the controller to operate improperly.

Pay attention. The following text contains very useful information.

CHAPTER ONE: INSTALLATION

1.1 INSTALLATION PROCEDURE

What You Need: - Agri-Alert system including independent battery enclosure
                           - 12VDC 7Ah sealed lead acid battery
                           - a 16VAC/150VA transformer in a separate box

> ⚠ **WARNING**
>
> **TO AVOID ELECTRICAL SHOCKS AND EQUIPMENT DAMAGE, TURN OFF THE BREAKER ON WHICH IS CONNECTED THE UNIT BEFORE CONFIGURING THE MAIN BOARD OR MAKING CONNECTIONS TO THE TERMINALS.**

☐ **Step 1:** Determine where you want to install the system. You need an unswitched AC power outlet and a telephone plug nearby to operate the system.

☐ **Step 2:** Make a list of all the sensor inputs you will be using with the Agri-Alert system.

☐ **Step 3:** Mount the Agri-Alert system and the battery enclosure on the wall (see Section 1.3).

☐ **Step 4:** Configure the main board in the Agri-Alert enclosure according to your list of sensor inputs (see Section 1.2.1).

☐ **Step 5:** If you have purchased one or two extension cards with the system, configure them according to the remainder of the sensor inputs (see Section 1.2.2).

☐ **Step 6:** Connect a ground wire (see Section 1.4.8).

☐ **Step 7:** Hook up the sensors assigned to the extension cards to the terminals provided (see Section 1.2.2).

☐ **Step 8:** Plug the extension cards into the main board (see Section 1.2.2).

☐ **Step 9:** Hook up the sensors, the telephone line, the microphone (if needed) and the siren (if used) to the terminals on the main board in the Agri-Alert enclosure (see Section 1.4).

☐ **Step 10:** Hook up the battery (see 1.4.2.1) and plug the transformer into an AC power outlet.

1.2 CONFIGURING THE SYSTEM

Before mounting the Agri-Alert system and making the connections, the system must be configured to respond to the sensors you will be connecting to it. The main board is the electronic card located inside the Agri-Alert enclosure. It can handle up to 8 sensor inputs. These inputs are called zones. Each extension card you add to the main board provides 8 additional zones. Two extension cards can be added for a total of 24 zones.

Figure 2: Location of the Main Board and Extension Cards
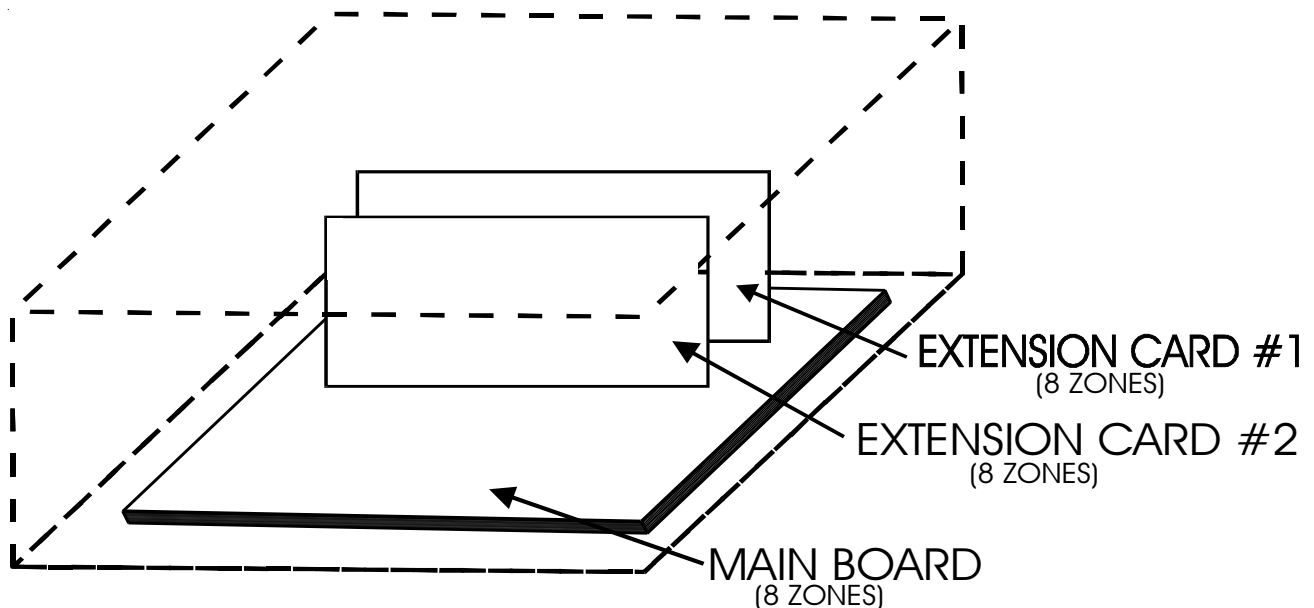
1.2.1 Main Board

Before you configure the zones, you need to determine which sensors you will be connecting to each board and in what order. Zones are then configured using jumpers. The diagram on the next page shows the location of the jumpers on the main board. To configure the extension cards, see Section 1.2.2.

To configure a zone, place the corresponding jumper in the correct position for the sensor being used. There are three jumper positions for each zone. The first position, called DRY/TEMP, is for dry contact (normally closed with or without EOLR/DEOLR; normally open with or without EOLR/DEOLR) and temperature inputs. The second position is for 4-20MA inputs and the third is for 0-5VOLT and AC current sensor inputs. Only one jumper is used to configure each zone. Initially, all zones are config-ured for DRY/TEMP. The zone numbers are printed on the main board. Use caution when prying the jumpers loose.

Figure 3: Location of Jumpers on Main Board

ZONE JUMPERS

For example, to configure Zone 6 as a 4-20mA input, place the black jumper as shown below:

Example :
Zone 6 is configured as 4-20 mA.

Figure 4: Jumper Positions on Main Board

1.2.2 Extension Cards

The basic Agri-Alert system handles up to 8 different zones or sensor inputs. Up to two extension cards can be added, each one providing 8 additional zones. Each extension card plugs into the main board located in the Agri-Alert enclosure. The figure on the following page shows the configuration of an extension card.
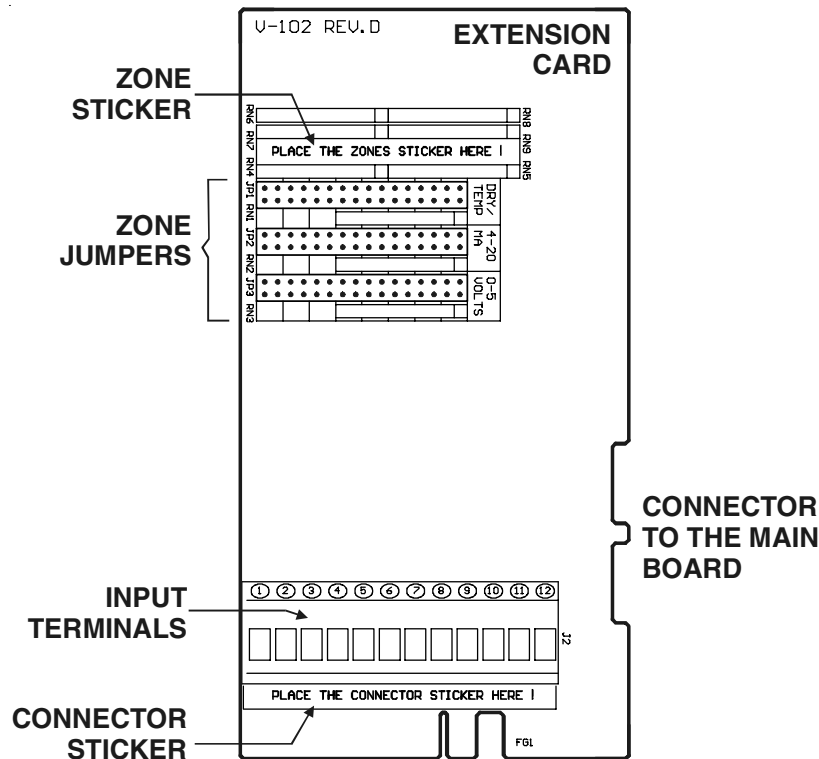
Figure 5: Extension Card Configuration

STEP 1: Identifying the Cards — Before you plug the extension cards into the main board, you need to configure the zones to correspond to the sensors you will be hooking up to each card. To do this, you must first identify the extension cards. Use the stickers provided for assigning the cards. Each extension card needs a sticker to identify the input terminals (Connector Sticker) and a sticker to identify the zones (Zone Sticker). The location of these stickers is shown on the diagram above. Use the zone number stickers to identify each individual zone.

STEP 2: Configuring the Zone Jumpers — Each zone is configured by placing a jumper in the position corresponding to the sensor being used. This must be done before the extension cards are plugged into the main board. There are three jumper positions for each zone. The first position, called DRY/TEMP, is for dry contact (normally closed with or without EOLR/DEOLR; normally open with or without EOLR/DEOLR) and temperature inputs. The second position is for 4-20MA inputs and the third is for 0-5VOLT

and AC current sensor inputs. Only one jumper must be used for each zone. Initially, all zones are configured for DRY/TEMP. The zone numbers are printed on the sticker.

STEP 3:   **Hooking up the Sensor Inputs** — Before connecting the extension cards into the main board, hook up the sensor inputs to the input terminals according to the jumper configurations defined above.

STEP 4: **Connecting the Extension Cards** — Once the extension cards have been identified and configured as described above, they can be connected to the main board. The diagram below shows the location of the connectors on the main board used for the extension cards.
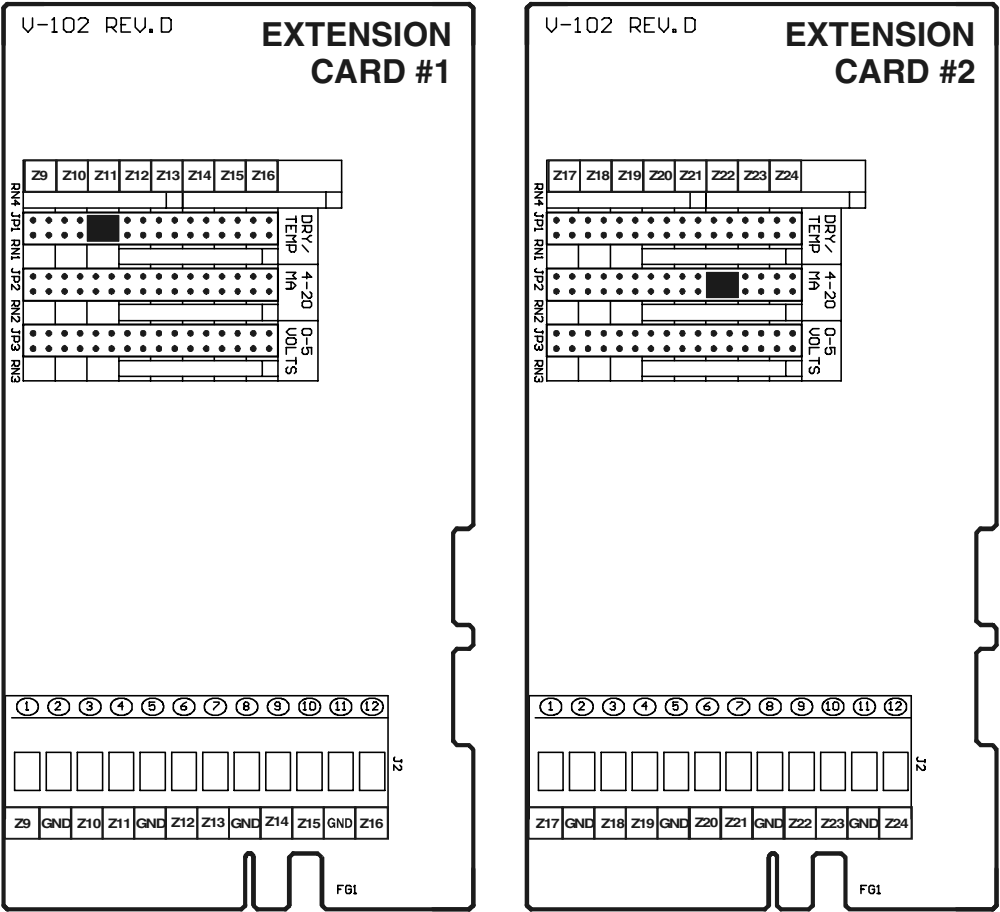
Figure 6: Location of Connectors for Extension Cards
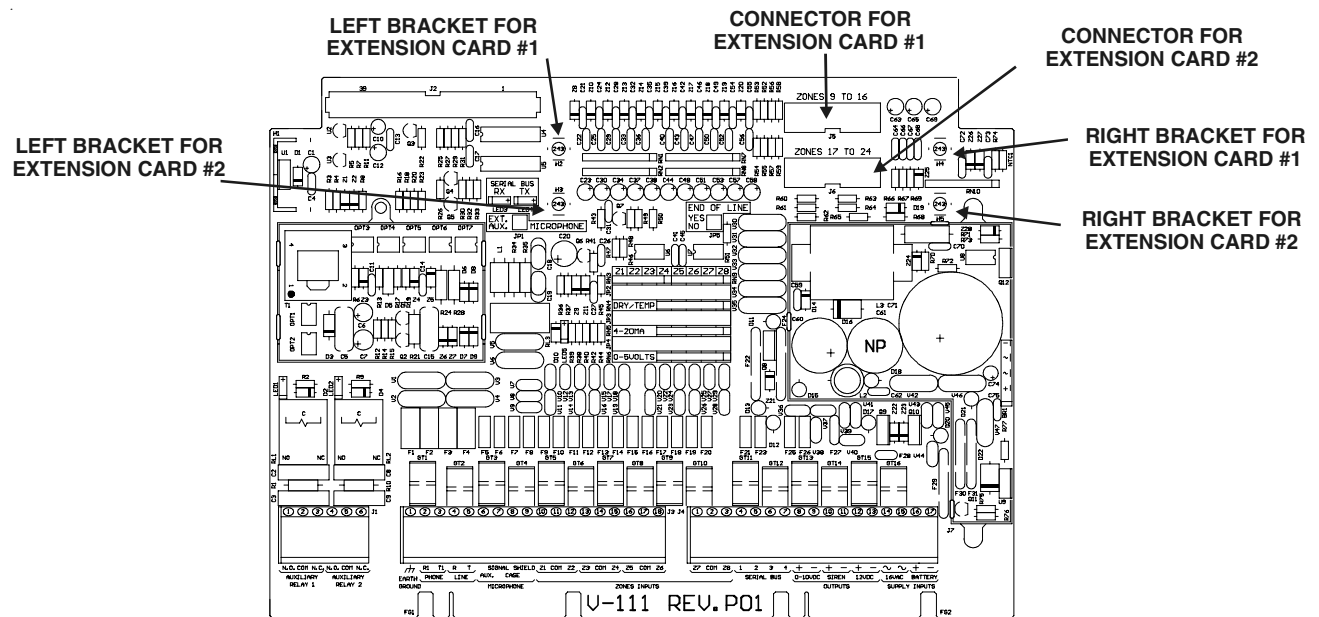
Once an extension card is firmly plugged into the appropriate connector on the main board, fasten the extension card securely onto the brackets on the board (see above) using the two screws provided with the card (Figure 6). Remember to initialize the extension cards from the keypad once the system is running (see Section 2.2).

Figure 7: Fastening the Extension Card Onto the Main Board
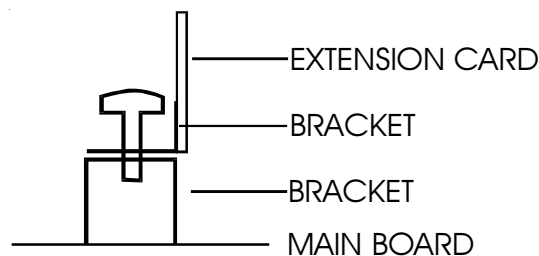
1.3 MOUNTING THE EQUIPMENT

The Agri-Alert system should be mounted on a wall as shown in the figure below. The Agri-Alert enclosures are opened by pulling the latch on the bottom. The battery enclosure is opened by pulling on the latch. Use 3/16″ diameter screws to mount each enclosure on the wall. Fasten the black caps onto the mounting holes once the screws are tightened. Make sure the covers of the two boxes can be opened easily. The battery enclosure has ventilation openings on the sides. Make sure they are not obstructed. Mount the battery enclosure and the transformer 4½″ from the Agri-Alert enclosure. Use the plastic tubing provided to run the wires from the battery and the transformer to the alarm system. These wires are provided with the system. The bare end hooks up to the Agri-Alert system. Electrical knockouts are located on the bottom of each enclosure for running the tube. Use a screwdriver and a hammer to punch out the holes. Use the cable holders provided to connect the tube to the enclosure. This prevents water from seeping into the enclosure.

Figure 8: Mounting the Enclosures
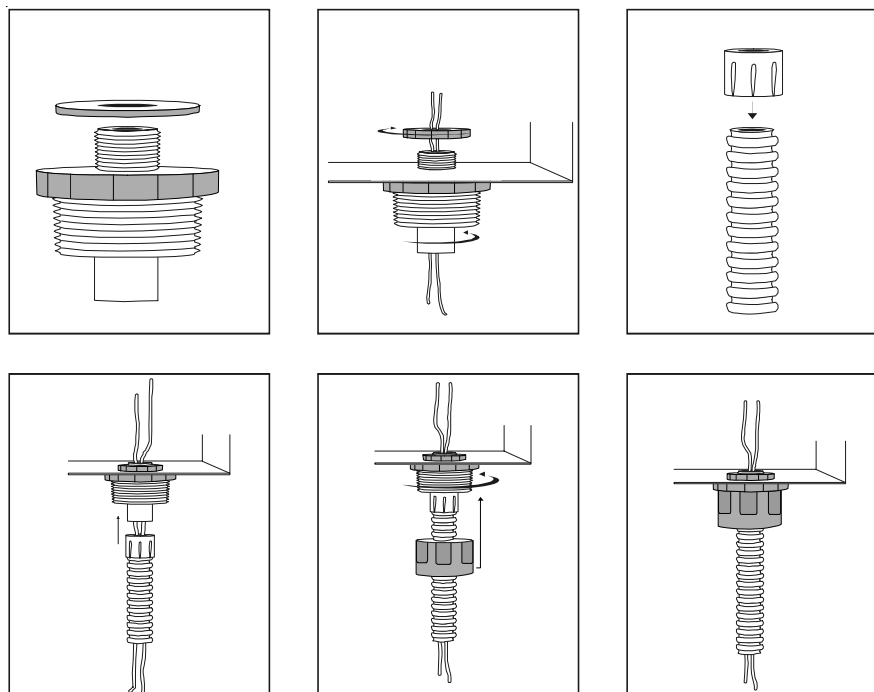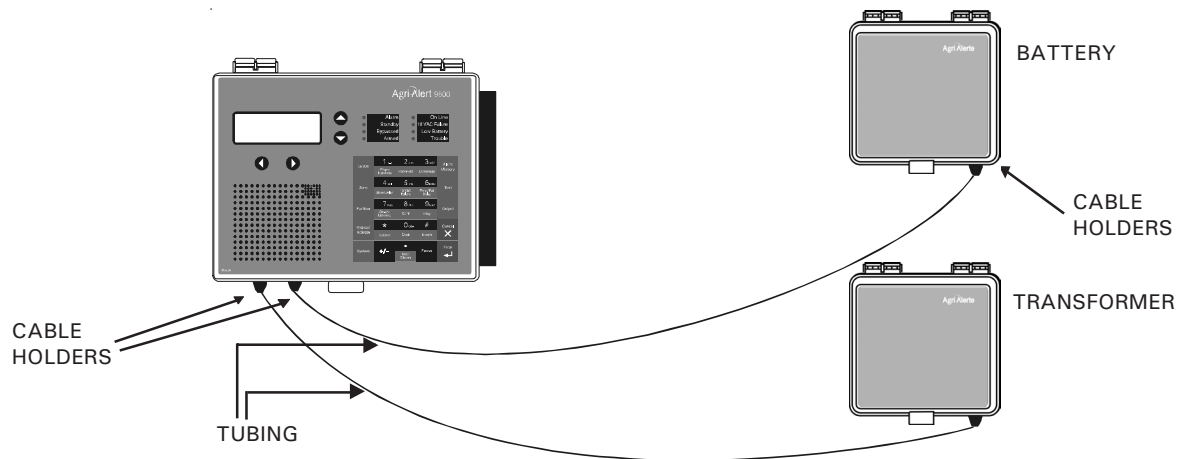
IF OUTDOOR CONNECTIONS ARE USED, MOUNT THE ENCLOSURE AS CLOSE AS POSSIBLE TO THE ENTRY POINT OF THE OUTDOOR WIRING.

Figure 9: Location of Mounting Holes
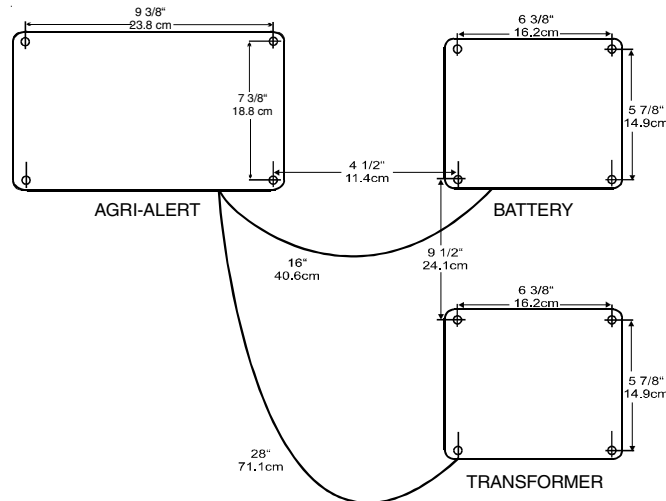
Figure 10: Electrical Knockouts for Battery and Transformer Hookup
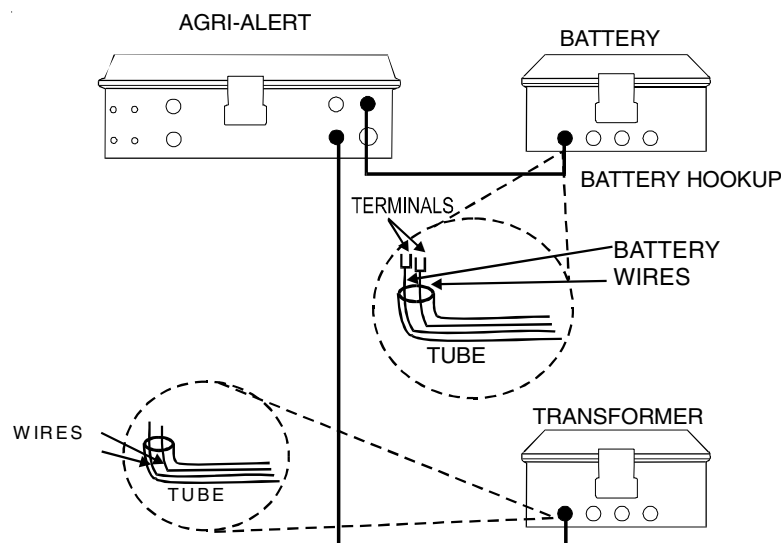
1.4 CONNECTING THE EQUIPMENT

When connecting the equipment to the terminals provided on the main board and the extension cards, strip the wires as little as possible (about 1/4") to avoid electrical shorts. Once the wires are connected, run them through the electrical knockouts provided on the bottom of the Agri-Alert enclosure and use a cable holder (2 special cable holders are provided for the battery connections and 2 additional cable holders are included with the system — you can order additional cable holders from your dealer if needed). Additional holes made in the enclosure will void the warranty.

1.4.1 Sensors

The terminals used for sensor inputs are numbered Z1, Z2, Z3, etc. on the main board and on the extension cards. Connect each sensor to a Z terminal and to the COM terminal. Note that each COM terminal is used by two zones; for example, Z1 and Z2 use the same COM. Make sure each sensor is connected to the proper COM. False alarms can result if the wires are not properly connected.

1.4.2 Supply Inputs

Sensor Inputs on the Main Board:

| Z1 | COM | Z2 | Z3 | COM | Z4 | Z5 | COM | Z6 | Z7 | COM | Z8 |

ZONE INPUTS
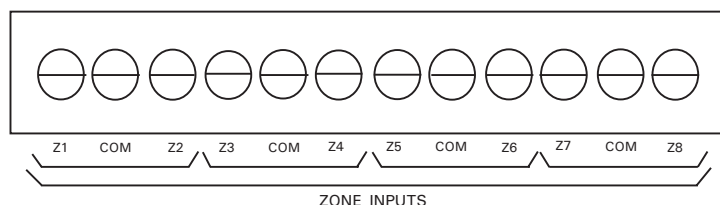
Sensor Inputs on the Extension Cards:

CARD #1

| Z9 | COM | Z10 | Z11 | COM | Z12 | Z13 | COM | Z14 | Z15 | COM | Z16 |

ZONE INPUTS

CARD #2

| Z17 | COM | Z18 | Z19 | COM | Z20 | Z21 | COM | Z22 | Z23 | COM | Z24 |

ZONE INPUTS
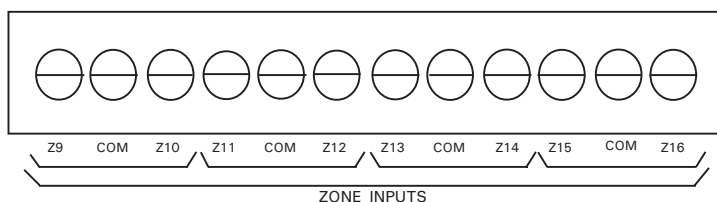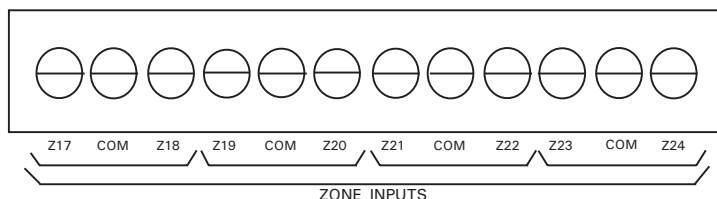
1.4.2.1 Backup Battery Connection

The terminals marked BATTERY are used for the backup battery. The Agri-Alert system uses a 12VDC/7Ah sealed lead acid battery. No other type of battery can be used.   The battery wires run through the tube provided, as shown in Figure 10. Make sure the positive wire of the battery is connected to the positive terminal. See Appendix B for normal battery life spans.

1.4.2.2 AC Power Connection

⚠ **WARNING**

MAKE SURE that the Agri-Alert 9600 can operate using only the battery supply **BEFORE** connecting the transformer !

TRANSF.   BATTERY

RED   BLACK

RED WIRE (+)   BLACK WIRE (—)

S S + -
16VAC   BATTERY

SUPPLY INPUTS

The terminals marked 16VAC on the main board are used for connecting the transformer. The transformer provided with the system is a 16VAC/150VA transformer. It must be plugged into a 120VAC/60Hz outlet.   Make sure the power source is unswitched (i.e. there is no switch on the power outlet).
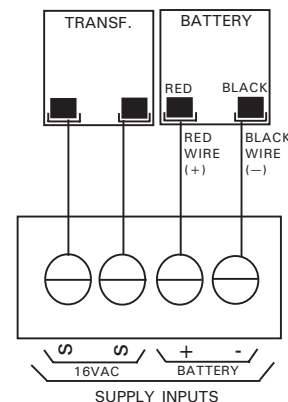
1.4.3 Terminal Outputs

1.4.3.1 0-10V Output

Terminals marked 0-10V supply a voltage from 0 to 10V (25mA max) to an auxiliary device. The voltage can be manually adjusted from the keyboard.
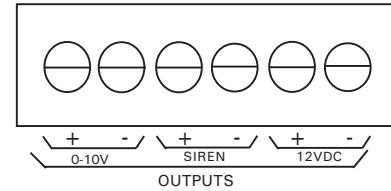
1.4.3.2 Siren Output

The terminals marked SIREN are for the siren. The voltage supplied is 12VDC with a maximum current of 1A. The sound loudness of the siren should not exceed 120 decibels. Note that the battery must be hooked up if a siren is used. Make sure the positive wire is connected to the positive terminal of the siren. The siren circuit is monitored by the Agri-Alert system for defects and wire troubles. This may not work properly if the impedance of the siren is too high. If this is the case, you can add a 1.5kΩ resistor (1/2W) to the siren circuit as close to the siren as possible. If no siren is connected, connect a 1.5kΩ resistor (1/2W) (included with the system) to the siren output or disable siren monitoring (see 7.10.3).
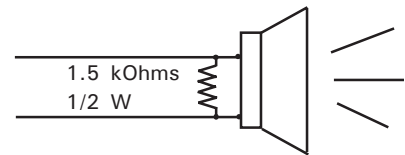
1.4.3.3 12VDC Output

The terminals marked 12VDC provide 12VDC with a maximum current of 750mA. This can be used to power other accessories such as temperature controllers. In the event of a power failure, the battery backup provides 12VDC to this line. Make sure the positive wire is connected to the positive terminal of your device.

1.4.4 External Microphone / Microphone Box Hookup

An external microphone or a microphone box can be hooked up for use with the on-site listening function (see your dealer). If neither is needed, the system uses a built-in internal microphone.

A jumper is provided on the main board for configuring the type of microphone used for on-site listening. If neither the external microphone nor the microphone box is needed, the jumper can be positioned at either position. Figure 11 shows the location of the microphone jumper. Use caution when prying the jumper loose. Make sure the jumper is placed horizontally on the top or bottom pins. Any other positions will lead to poor results.

External Microphone Hookup – The SHIELD terminal is connected to the wire shielding. The SIGNAL and CASE terminals are connected to the microphone. The AUX terminal is not used.

Figure 11: Location of Microphone Jumper on Main Board
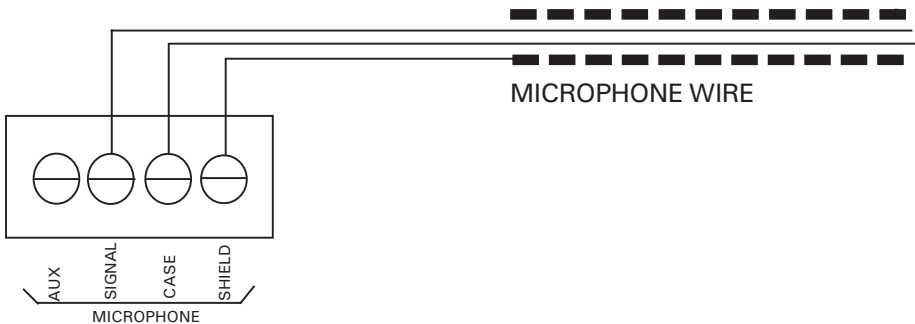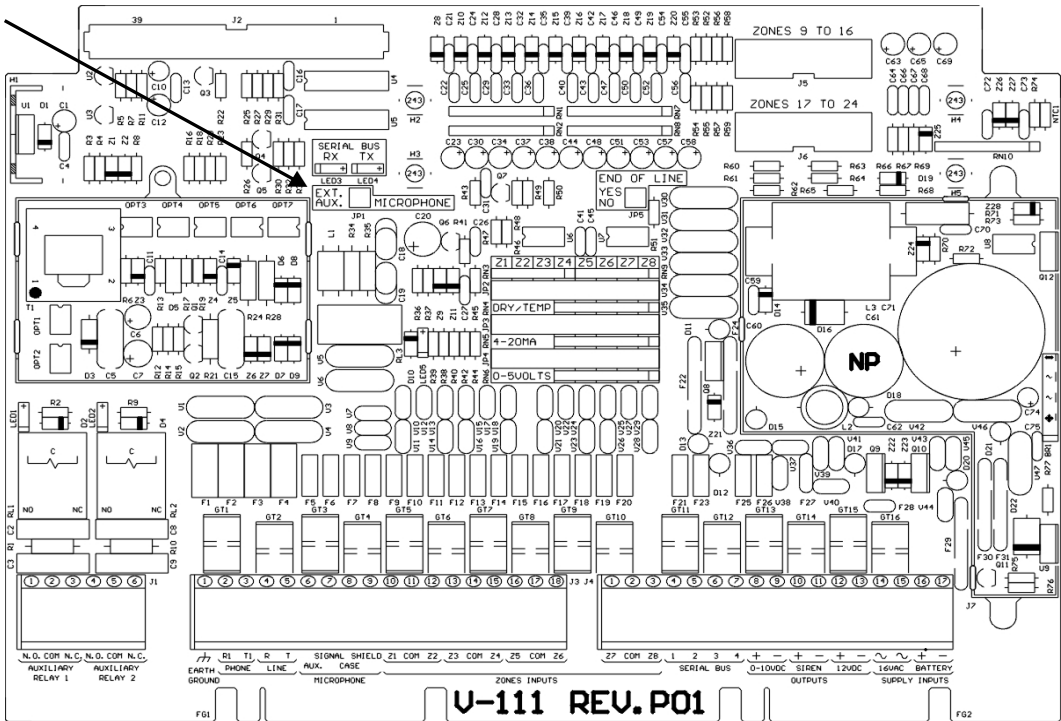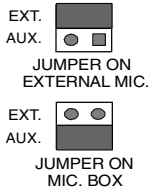
Microphone Box Hookup – The SHIELD terminal is connected to the wire shielding. The AUX terminal is connected to the microphone box. In addition, the microphone box must be connected to the serial bus (see Section 1.5).
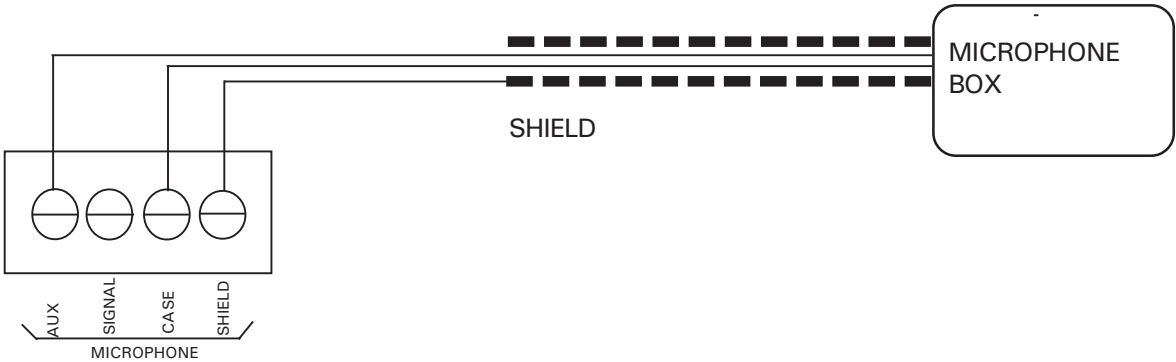
1.4.5 Phone Hookup

Two types of phone hookups are possible. In the simplest case, the Agri-Alert is connected to the phone lines using an ordinary 6 contact phone jack (Canada: CA11; USA: RJ11). The two wires from the phone line are connected to the LINE terminals marked R and T. In this configuration, the user has priority over the system when using the phone line: the system will wait for the line to free up before dialing out.

The best method is to use a line seizure modular jack designed for use with alarm systems (Canada: CA31A or CA38A; USA: RJ31A or RJ38A). In this case, the system has priority over other users when dialing out. A line seizure kit is available from your dealer. The connections for this type of plug are shown in the figure below. This plug disconnects all other phones on the line when dialing out in an emergency. In order to do this, you must tap the phone line at its point of entry in the building.

Figure 12: Phone Hookup with Line Seizure
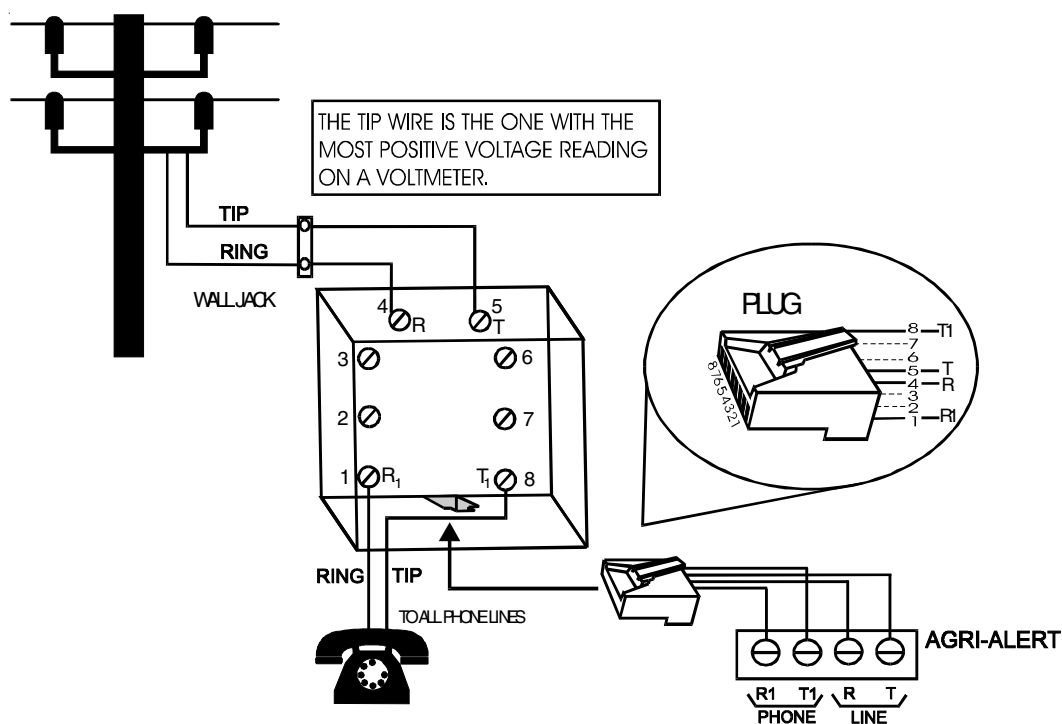
Figure 13: Phone Hookup without Line Seizure

THE TIP WIRE IS THE ONE WITH
THE MOST POSITIVE VOLTAGE
READING ON A VOLTMETER

TIP

RING

WALL JACK

R   T

PLUG

T
R

R1   T1   R   T
PHONE   LINE

AGRI-ALERT
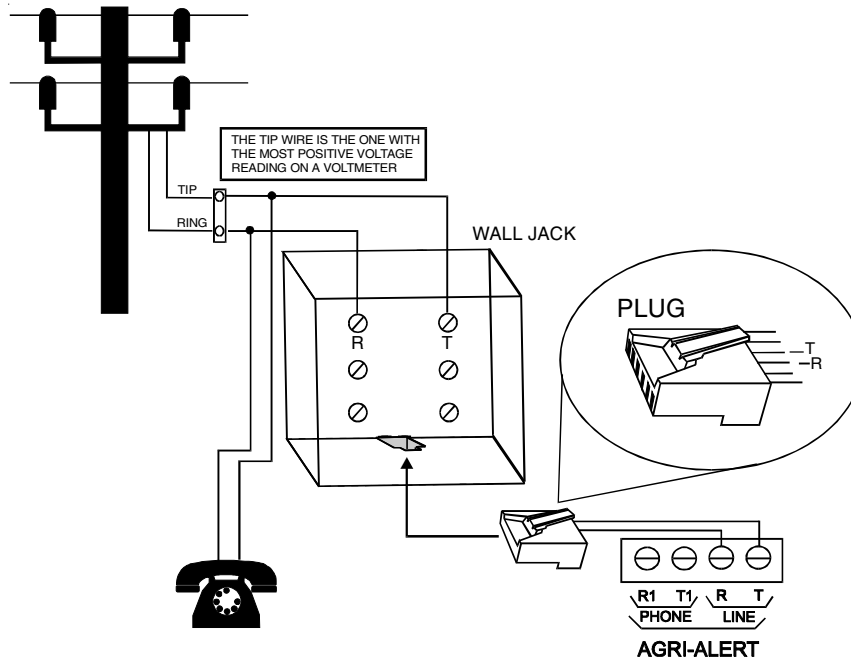
1.4.6 Programmable Outputs

Relays and programmable outputs are provided on certain devices for general use. They can be activated from the front panel, over the phone or on an alarm condition. In the case of the relays, the LED located above the relay turns on when the relay is activated.

⚠ **WARNING**   RELAYS RETURN TO A DISABLED STATE DURING A POWER SHORTAGE.

Figure 14: Relay Output Connections (Agri-Alert, Relay Box)

TERMINAL CONNECTIONS

N.O. COM. N.C.   N.O. COM. N.C.
AUXILIARY   AUXILIARY
RELAY 1   RELAY 2

INTERNAL RELAYS

N.C.   N.C.
COM.   COM.
N.O.   N.O.
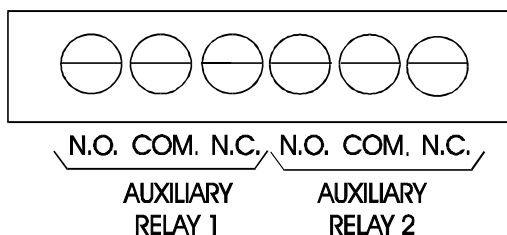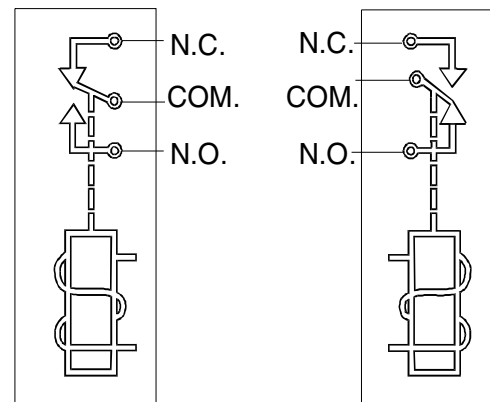
DISABLED   ENABLED

1.4.7 Connecting the Earth Ground

The earth ground terminal provides a ground for the Agri-Alert system. Use a rod at least 5/8" (1.6cm) in diameter at least 10' (3m) long. The rod must have a clean metal surface free of paint, enamel or other nonconducting substances. Drive the rod at least 10' (3m) into the ground. If the bedrock is more than 47" (1.2m) deep, drive the rod into the ground to bedrock level and bury any remainder horizontally at least 2' (600mm) below ground level. If the bedrock is less than 47" (1.2m) deep, bury the rod horizontally at least 2' (600 mm) below ground level.

EARTH
GROUND

3M METAL ROD
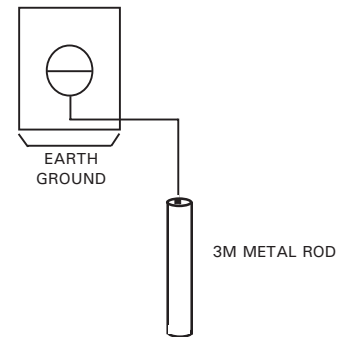
(ref. article 10-702, 3d of the Canadian Electricity Code C22.10-99)

Use a CSA certified wire of TEW type or a UL certified wire of type 1015: Green/yellow, #12AWG, 600V, 105°C insulated wire. We suggest using a Belden #9912 (color code #189) or equivalent.

The rod must be connected to the wire described above. It is recommended to let the rod going out of the ground to connect it. The wire length must not exceed 50' (15m).

It is extremely important that the earth ground terminal be connected to a proper ground to protect the electronic components from damage due to lightning surges and electrostatic discharges. Do not use the electrical ground for this purpose.

WARNING

IF OUTDOOR CONNECTIONS ARE USED, MOUNT THE ENCLOSURE AS CLOSE AS POSSIBLE TO THE ENTRY POINT OF THE OUTDOOR WIRING.

AN IMPROPER EARTH GROUND CONNECTION IMMEDIATELY VOIDS THE SYSTEM WARRANTY WITHOUT FURTHER NOTICE.

10' (3M)

2'(0.6M)   10'(3M)   >47" (1.2M)

2'(0.6M)   10' (3M)   <47" (1.2M)

METALLIC ROD   BEDROCK
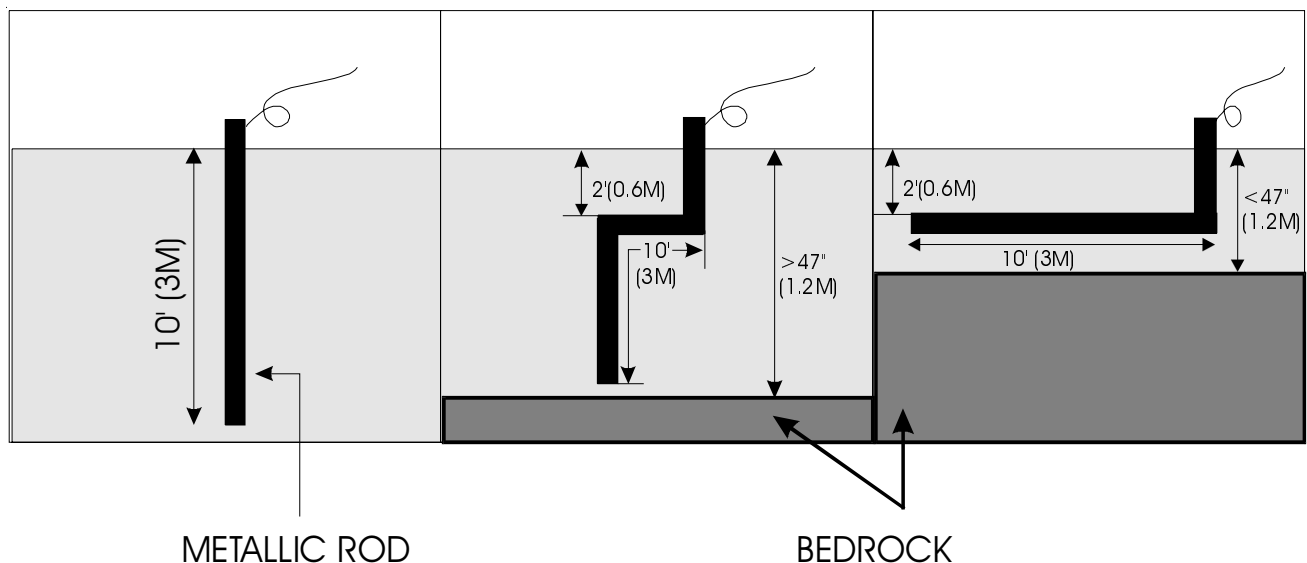
1.5 SERIAL BUS INTERFACE CONNECTIONS

1.5.1 Connecting Devices to the AA-9600

The serial bus interface is used to connect the different Agri-Alert devices together. **A shielded twisted pair cable is needed for this purpose**. Each device includes four terminals marked SERIAL BUS and numbered from 1 to 4. Connect all the number 1 terminals together, all the number 2 terminals together, etc. See Appendix C for cable gauge and maximum length recommendations.
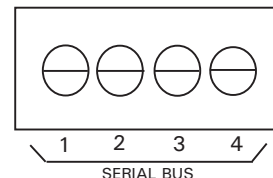
1.5.2 End of Line Jumpers

Each device includes an end of line jumper to identify the end of the communication line. When a device is located at the end of the communication loop, the end of line jumper must be at the YES position. For the other devices, place the jumper at the NO position. The following diagram shows the location of the end of line jumper and the communication terminals on the Agri-Alert.

Figure 15: Location of the End of Line Jumper and the Communication Terminals
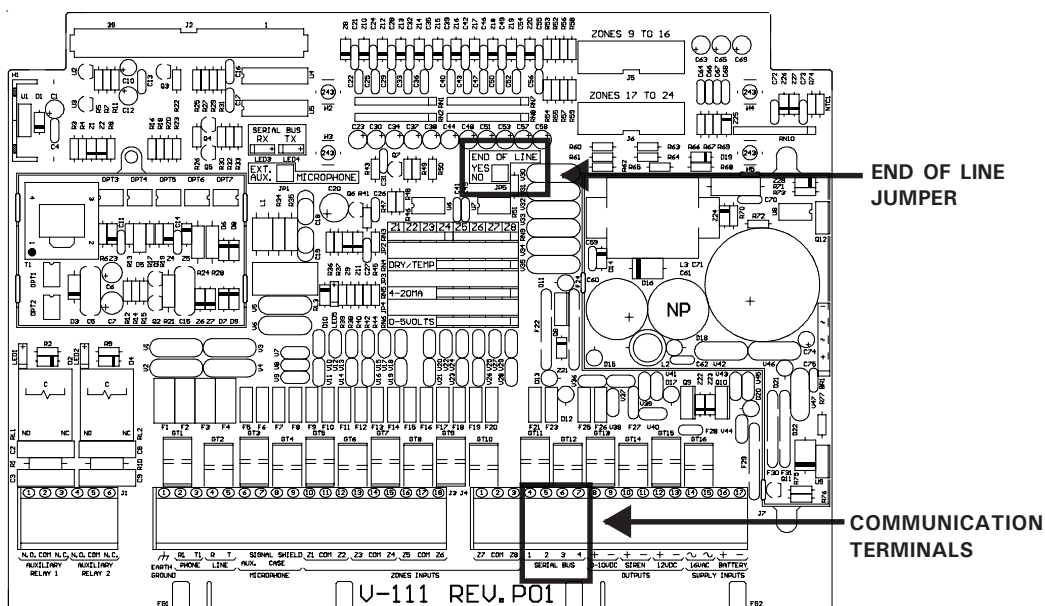
Figure 16: Example of End of Line Jumper Positions

TP 800	**KPB 400**	**AA-9600**	**KP 400**
End of line = YES	End of line = NO	End of line = NO	End of line = YES
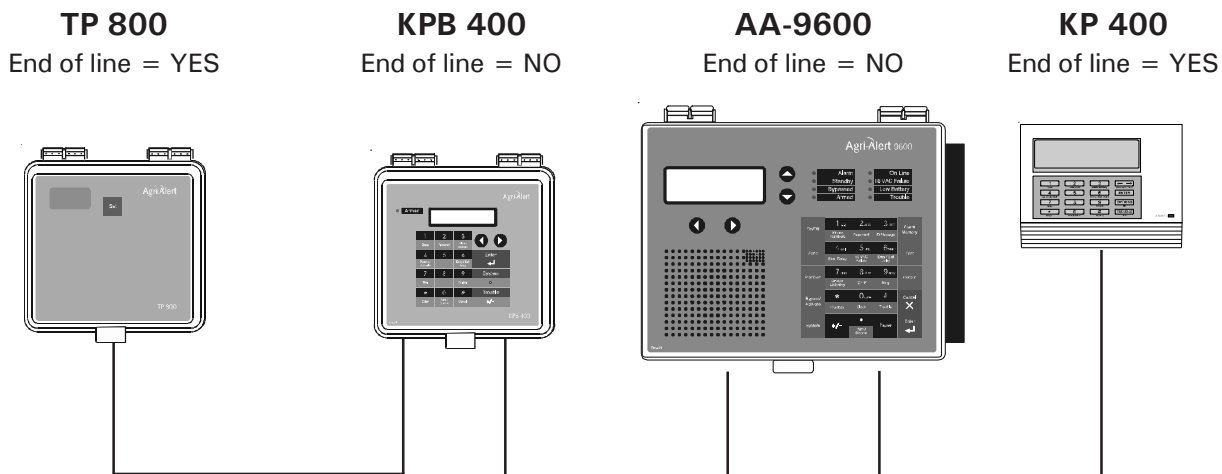
1.5.3 *Connecting a Bridge-A to the AA-9600*

The Bridge-A module is used to connect the AA-9600 to temperature controller and other AA-9600 networks (see section 3.4.3). Only two wires are used to connect the Bridge-A to the AA-9600. Connect terminals 1 and 2 on the Bridge-A to terminals 2 and 3 respectively on the AA-9600.

CHAPTER TWO: USER INTERFACE

The system displays and prompts for information by using the alphanumeric screen. The keypad is used for data entry and for enabling and disabling the various system functions. The speaker on the front panel delivers voice messages. A built-in piezo-electric warns of illegal entries (3 short beeps) and beeps once when a valid key is pressed. The integrated microphone on the front panel is used to record the user ID message and provide on-site listening. The status of some subsystems is displayed using LEDs on the front panel.

2.1 FRONT PANEL
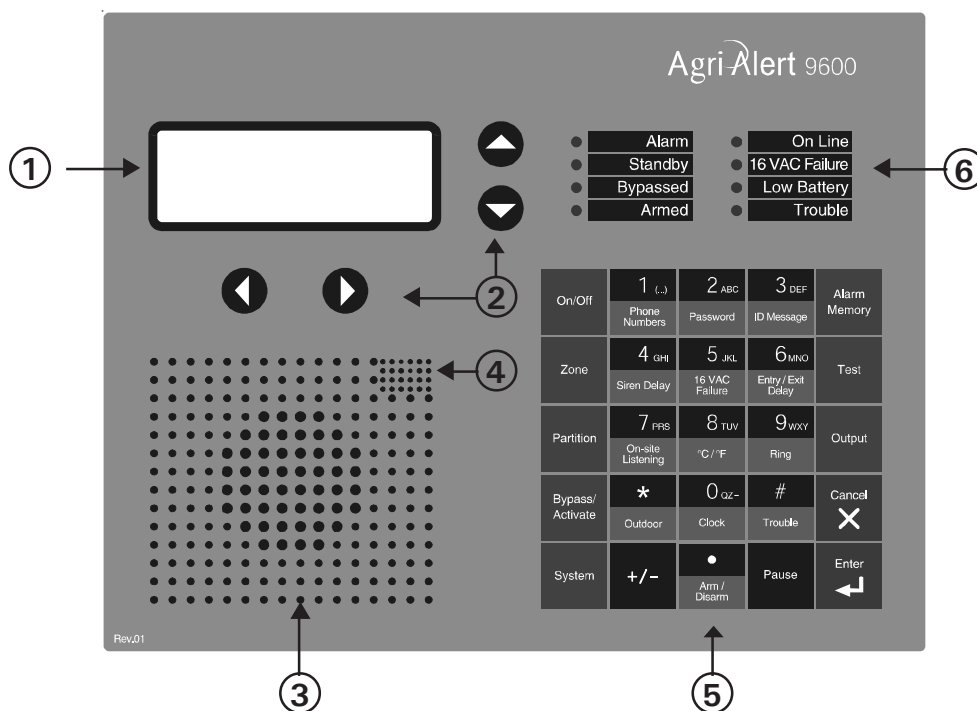
1 - Display Screen — An alphanumeric display used to provide information and prompt for inputs.

2 - Cursor Keys — Used to step through menu items during data entry and for deleting the last character entered.

3 - Speaker — System identification and alarm messages.

4 - Integrated Microphone — Records the ID message and provides on-site listening input.

5 - Keypad — User inputs and information requests.

6 - System LEDs — Status of various subsystems (see table on following page).

2.2   MEANING OF STATUS LEDS

LED	MEANING
ALARM	This LED is activated when one or more alarm conditions are detected. The LED is turned off when the alarm is acknowledged as long as the alarm condition no longer exists, the reset time has elapsed and no other alarms are active.
STANDBY	This LED is activated when the Agri-Alert system is in standby mode. In this mode, the system stops monitoring the sensor inputs for alarm conditions. The LED is turned off when normal monitoring is resumed.
BYPASS	This LED is activated when one or more zones are bypassed. The LED is turned off when no zones are currently bypassed.
ARMED	This LED is activated when the burglar zones are armed.
ON LINE	This LED is activated when the system uses the telephone line.
16 VAC FAILURE	The LED is activated when a power failure is detected on the 16VAC supply circuit.
LOW BATTERY	This LED is activated when the back-up battery voltage is low.
TROUBLE	This LED is activated when: - a zone configuration conflicts with the signal received from the sensor - a wire short or open circuit is detected on a temperature or dry contact with EOLR input. - an open circuit is detected on a dry contact input with DEOLR. - a wire short is detected on a dry contact input with DEOLR. - a wire open or short is detected on a 4-20mA input. - a software problem is detected. - a problem on the module's software is detected. - a module low SBI power. - a communication problem occured on a module.

2.3 DISPLAYING A PARAMETER

When you select a parameter to input or modify, the system begins by displaying the current value or status of the parameter. If the message to display is longer than the size of the window, it will be scrolled to the left. The display pauses at the end of each screen to allow time to read the message. You can exit prematurely from a display sequence at any time by pressing the **Cancel** ⌗ key. This will place you in program mode and allow you to modify the parameter values (see next section). To exit from this function as well, press the **Cancel** key once again.

If a parameter is not completely defined when you try to display it, the message **INCOMPLETE DATA** appears on the screen. This may be an indication that the system will not behave as expected. If, for example, a zone input is not completely configured, the system will not monitor the zone for alarm conditions. Before enabling the system for normal operation, make sure all parameters are properly defined. In the case of phone numbers and zones, the system will display a message periodically telling the user which zones and phone numbers are incomplete. To exit from the warning display, press the **Cancel** key.

2.4 MODIFYING A PARAMETER

If you have selected a parameter and the display sequence is now finished, you can begin modifying the parameter values. The following screen appears on the display:

```
TO MODIFY. . . . .  (↵)
TO QUIT. . . . . . .  (X)
```

This screen is also displayed if the display sequence described above was cancelled prematurely. If you want to modify the parameter values at this point, press the **Enter** key ⌨ to modify the parameter. The system will prompt for the information required to define the parameter. For example, if you select the Exit Delay parameter followed by **MODIFY**, the system responds:

```
ENTER NEW DELAY
 _ MIN: _ _ SEC
```

The number of spaces provided for input corresponds to the maximum number of digits allowed. In this example, one space is provided for the minutes and 2 spaces are provided for the seconds. The cursor positions itself on the first space and blinks until a digit is entered. If no response is given within 2 minutes, the system will cancel the input session and return to the Date/Time display. If more than one value is required in the same screen (in this example: hours and minutes), press **Enter** after entering the first value to step to the following one. To enter a zero value, you cannot simply press **Enter**; you must type **0 Enter**.

If you make a typing mistake, you can backstep using the back arrow key ◀ underneath the display window before pressing **Enter**. The cursor will position itself accordingly. You can enter a negative value if this is allowed (for example, a negative temperature value) by pressing the + /- key │+/-│ either before or after the digits. After entering a value using the numerical keypad, press **Enter** to register the value. If the value entered falls outside the permissible range for that parameter, the system will beep three times and wait for you to modify the input using the back arrow key.

2.5 HOW TO USE THE MENUS

Menus are used to select a parameter or to assign a predetermined value to a parameter. If the menu is comprised of only two items, they are displayed on the screen at once. For example, when you press the **Clock** key │O oz. Clock│, followed by **Enter** to modify, the following menu appears:

```
DATE . . . . . . . . .   (1)
TIME . . . . . . . .   (2)
```

You simply type the number of the item to select that item (no need to press the **Enter** key). When more than two menu items are involved, the system will display one item at a time and allow the user to scroll through the menu using the up and down-arrow keys ▲▼. Each menu item is followed by an arrow symbol to locate the current position in the menu. Once a menu item is selected, other sub-menus may appear to further define the input. For example, if you press the **System** key │System│, the following sub-menu appears:

```
SYSTEM
PROGRAM ZONES  ▼
```

The first menu item is **PROGRAM ZONES**. The arrow following the item means you are at the top of the menu. If you press the down-arrow ⬇ , the second item appears:

> **SYSTEM**
> **PROGRAM DIALING** ⬍

The arrows indicate that menu items are to be found above and below the current item. When you reach the end of the menu, the last item will have an up-arrow ▲. To select a menu item, press **Enter**.

CHAPTER THREE: SYSTEM INITIALIZATION

3.1 SYSTEM INSTALLATION MENUS

The system installation menus can be accessed using the System key.   An installer
password is needed. This password must be entered when the INSTALLATION menu
item is selected in the SYSTEM menu. By default, the installer password is set to 9601.

Access to System Installation Menus:

1. Press the **System** key System .   The current revision of the software is displayed. The

installer password must be entered.

> **SOFTWARE**
>   **REV. x.xxx**

> **ENTER INSTALLER**
> **PASSWORD:** _ _ _ _

2. Enter the installer's password (9601 by default) and press **Enter** ↵ .

> **SYSTEM**
> **PROGRAMME ZONES** ▼

3. Using the up and down-arrow keys ▲▼ , scroll the menu to the desired item

and press **Enter** ↵ .

To change the installer password:

1. Follow the preceding procedure to access the system installation menus.

2. Using the up and down-arrow keys ▲▼ , scroll the menu until the item

displayed is PROGRAM SYSTEM and press **Enter** ↵ .

> **SYSTEM**
> **PROGRAM SYSTEM** ⬍

3. Using the up and down-arrow keys ▲▼ , scroll the menu until the item

displayed is INST. PASSWORD and press **Enter** ↵ .

```
┌─────────────────────────────────┐
│                                 │
│      PROGRAM SYSTEM             │
│      INST. PASSWORD      ▲       │
│                          ▼       │
└─────────────────────────────────┘
```

4. Enter a four-digit code and press **Enter** [Enter ⏎] . The system prompts for the pass-word a second time.

```
┌─────────────────────────────────┐
│                                 │
│      ENTER NEW                  │
│      PASSWORD: _ _ _ _          │
│                                 │
└─────────────────────────────────┘
```

3.2 EXTENSION CARD INITIALIZATION

If you have purchased one or two extension cards with your system, you must initial-ize them by following the procedure given below.

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ▲▼ , scroll the menu until the item dis-played is PROGRAM AUX'S and press **Enter** [Enter ⏎] .

```
┌─────────────────────────────────┐
│                                 │
│      PROGRAM AUX'S              │
│      EXTENSION CARD     ▲       │
│                          ▼       │
└─────────────────────────────────┘
```

3. Using the up and down-arrow keys ▲▼ , scroll the menu until the item dis-played is EXTENSION CARD and press **Enter** [Enter ⏎] .

```
┌─────────────────────────────────┐
│                                 │
│      CARD #1                    │
│      STATUS: DISABLE            │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│                                 │
│      CARD #2                    │
│      STATUS: DISABLE            │
│                                 │
└─────────────────────────────────┘
```

4. The system displays the current status of the extension cards.

```
┌─────────────────────────────────┐
│                                 │
│      TO MODIFY. . . . .  (⏎)    │
│      TO QUIT. . . . . . .  (X)   │
│                                 │
└─────────────────────────────────┘
```

5. Press **Enter** [Enter ⏎] to modify or **Cancel** [Cancel ✗] to quit.

CASE 1: NO CARDS ARE PRESENTLY INITIALIZED

```
ADD CARD      . . . . . . .  (1)
REMOVE CARD . . . . . .  (2)
```

6. Type **1** to initialize extension card # 1. Type **2** to exit this function without making changes. The system displays the current status of the parameters once again and returns to the PROGRAM AUX'S menu.

CASE 2: EXTENSION CARD # 1 IS INITIALIZED

```
ADD CARD      . . . . . . .  (1)
REMOVE CARD . . . . . .  (2)
```

6. Type **1** to add extension card # 2. Type **2** to remove extension card # 1. Press the **Cancel** key to exit this function without making changes. <u>Extension cards must be removed if you are planning to unplug the extension card from the main board to make changes in the configuration</u>. The system displays the current status of the parameters once again and returns to the PROGRAM AUX'S menu.

CASE 3: BOTH CARDS ARE PRESENTLY INITIALIZED

```
REMOVE CARD . . . . . . .  (1)
TO QUIT . . . . . . . . . . .  (2)
```

6. Type **1** to remove card #2. Type **2** to exit this function without making changes.

```
CARD #1
STATUS: ENABLE
```

```
CARD #2
STATUS: DISABLE
```

7. The system displays the current status of the parameters once again and returns to the PROGRAM AUX'S menu.

3.3 DEVICE INITIALIZATION

3.3.1 Add Device to Network

Each device connected to the Agri-Alert network must be identified by the user in order for the system to recognize it. Normally, this is done during installation, after the connections have been made. A device can also be added to an existing system. **If this is the case, the procedure below must be followed before connecting the new device to the system.**

1. See Section 3.1 to access the system installation menus.

```
SYSTEM
PROGRAM AUX'S      ▲
```

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** [Enter⏎] .

```
PROGRAM AUX'S
DEVICE            ▲▼
```

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is DEVICE and press **Enter** [Enter⏎] .

```
DEVICE
ADD               ▼
```

3. Press Enter [Enter⏎] once again to select the ADD option.

```
SELECT DEVICE
(2..99) : _ _
```

5. Enter the device ID number and press Enter. The number 1 is reserved for the AA9600; the number 99 is reserved for the Bridge communication module.

```
DEVICE CONNECTED
AND ID SET ?
```

```
YES . . . . . . . . . . .  (1)
NO . . . . . . . . . . .   (2)
```

6. Type **1** if the device is already connected to the network; the system continues with step 9. Type **2** if either the device is not yet connected to the network or the id number has not been configured.

```
   SBI  DISABLED
```

```
   CONNECT DEVICE
   # XX  NOW
```

```
   IF CONNECTED
   PRESS. . . . . . . . . .(1)
```

7. The serial bus interface is disabled and the system pauses to allow you to make the connections. Type **1** to continue the installation procedure, once the device is on line. **Press cancel** to end the procedure without adding the new device.

```
   CONFIGURE DEVICE
   ID TO #XX
```

```
   IF CONFIGURED
   PRESS. . . . . . . .   (1)
```

8. At this point, you must configure the id number on the new device. Refer to the installation manual of the device to do this. When you are finished, type 1. Press Cancel to end the procedure without adding the new device. When a new device is installed, the system checks if it responds normally. The message "DEVICE #XX INSTALLED" is displayed if the device exists; otherwise the message "DEVICE DOES NOT EXIST" is displayed.

```
   TO CONTINUE . . .  (1)
   TO END. . . . . . . .  (2)
```

9. Type **1** to continue adding devices or **2** to return to the PROGRAM AUX'S menu.

3.3.2 Remove Device from Network

Follow the procedure below to remove a device **before disconnecting it from the network**.

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM AUX'S                 │
│   DEVICE              ▲▼        │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the DEVICE option and press **Enter**.

```
┌─────────────────────────────────┐
│                                 │
│   DEVICE                        │
│   REMOVE              ▲▼        │
│                                 │
└─────────────────────────────────┘
```

4. Use the arrow keys ⬆⬇ to scroll the menu to the REMOVE option and press **Enter**.

```
┌─────────────────────────────────┐
│                                 │
│   SELECT DEVICE                 │
│   (2..99) : _ _                 │
│                                 │
└─────────────────────────────────┘
```

5. Enter the device identification number and press Enter. The number 1 is reserved for the AA9600; the number 99 is reserved for the Bridge communication module. If the number entered is not a valid device number, the message "DEVICE DOES NOT EXIST" is displayed and the system goes to step 8.

```
┌─────────────────────────────────┐
│                                 │
│   DISCONNECT DEVICE             │
│   # XX  NOW ?                   │
│                                 │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│                                 │
│   YES . . . . . . . . . . .  (1) │
│   NO . . . . . . . . . .  (2)    │
│                                 │
└─────────────────────────────────┘
```

6. Type **1** if you would like to disconnect the device right now. Type **2** to disconnect the device at a later time; the system ends the procedure.

```
┌─────────────────────────────────┐
│                                 │
│   SBI  DISABLED                 │
│                                 │
│                                 │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│                                 │
│   IF DISCONNECTED               │
│   PRESS . . . . . . . . . . (1) │
│                                 │
└─────────────────────────────────┘
```

7. The serial bus interface is disabled and the system pauses to allow you to discon-
nect the device from the network. Type **1** when the device is disconnected.

```
┌─────────────────────────────────┐
│                                 │
│   TO CONTINUE . . .  (1)        │
│   TO END. . . . . . .  (2)      │
│                                 │
└─────────────────────────────────┘
```

8. Type **1** to continue removing devices or **2** to return to the PROGRAM AUX'S menu.

3.3.3 Edit Device Label

Definition: Each device is identified by a unique number and by a character string of
up to 32 characters defined by the user. By default, the system defines a label made
up of a two-character string followed by the device id number, as follows:

KP - for a KPB-400 and KP-400
TP - for a TP-800
LB - for a LB-9600
EC - for an extension card
BG - for a Bridge
RB - for a RB-800

We recommend not erasing the default label and adding your own description after
the default.

Setting:

1. See section 3.1 to access system installation menus.

```
┌─────────────────────────────────┐
│                                 │
│   SYSTEM                        │
│   PROGRAM AUX'S        ▲        │
│                                 │
└─────────────────────────────────┘
```

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S option and

press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM AUX'S                 │
│   DEVICE               ↕        │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the DEVICE option and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│                                 │
│    DEVICE                       │
│    EDIT LABEL          ▲        │
│                                 │
└─────────────────────────────────┘
```

4. Use the arrow keys ▲▼ to scroll the menu to the EDIT LABEL option and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│                                 │
│    SELECT DEVICE                │
│    (1..99): _ _                 │
│                                 │
└─────────────────────────────────┘
```

5. Enter the device ID number and press **Enter**. Number 1 is reserved for the AA9600; number 99 is reserved for the Bridge communication module. If the ID number is not an installed device, the system displays the message "DEVICE DOES NOT EXIST" and continues with step 7.

```
┌─────────────────────────────────┐
│                                 │
│    TP#08                        │
│    BREEDER#01                   │
│                                 │
└─────────────────────────────────┘
```

6. Use the numeric keys to type the device label. For example, the number 2 key is used to type the letters **A**, **B** and **C**: type **2** for **A**, **22** for **B**, **222** for **C, 2222** for **a, 22222** for **b** and **222222** for **c**. Use the number **1** key for special characters. Use the arrow keys ▲▼◄► to move around the display. Press **Enter** ⏎ to end the edit session.

```
┌─────────────────────────────────┐
│                                 │
│    TO CONTINUE . . .   (1)      │
│    TO END. . . . . . . .   (2)  │
│                                 │
└─────────────────────────────────┘
```

7. Type **1** to continue editing device labels or **2** to return to the PROGRAM AUX'S menu.

3.3.4 Upload Data To/From a UP-1000

Definition: This function is used to transfer a complete AA-9600 parameter configuration to or from a UP-1000 programmer. The procedure is as follows: (i) connect the UP-1000 to the SBI on the AA9600 using the interface card (see UP-1000 manual); (ii) place the AA9600 in UP-1000 mode; (iii) select the memory banks on the UP-1000; (iv) select Protocol 1 on the UP-1000 and press READ or WRITE.

1. See Section 3.1 to access the system installation menus.

```
┌─────────────────────────────────┐
│                                 │
│   SYSTEM                        │
│   PROGRAM AUX'S         ▲       │
│                                 │
└─────────────────────────────────┘
```

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM AUX'S         ▲       │
│   UPLOAD                ▼       │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the UPLOAD option and press **Enter**.

```
┌─────────────────────────────────┐
│                                 │
│   UPLOAD                        │
│   UP-1000               ▼       │
│                                 │
└─────────────────────────────────┘
```

4. Use the arrow keys ⬆⬇ to scroll the menu to the UP-1000 option and press **Enter** [Enter ↵]. During the transfer, the message "TRANSFER IN PROGRESS" is displayed.

3.3.5 Upload Data to a Device

Definition: This function is used to update one or more newly installed devices. This greatly speeds up the process of updating the device network. Make sure the SBI bus is connected on the new device before uploading.

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM AUX'S      ▲           │
│   UPLOAD             ▼           │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the UPLOAD option and press **Enter**.

```
┌─────────────────────────────────┐
│                                 │
│   UPLOAD             ▲           │
│   AUX DEVICES        ▼           │
│                                 │
└─────────────────────────────────┘
```

4. Use the arrow keys ▲▼ to scroll the menu to the AUX. DEVICES option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│                                 │
│   ALL . . . . . . . . . . .  (1) │
│   SPECIAL . . . . . . .   (2)    │
│                                 │
└─────────────────────────────────┘
```

5. Type **1** to upload the new data to all the devices. The upload is performed and the function is exited. Type **2** to upload the data to one or certain devices in particular.

```
┌─────────────────────────────────┐
│                                 │
│   ONE DEVICE . . . . . . . . (1) │
│   RETRANSMIT . . . . . . . . (2) │
│                                 │
└─────────────────────────────────┘
```

6. If you typed 2 at step 5 above, you can choose to upload to a device in particular. In this case, type 1 and the system will prompt for the device number. The second option is used when errors occur during an upload to all devices. By using this function, the user can redo the upload only to those devices that have not been updated. If all devices are up-to-date, the message "NO DEVICE IN TROUBLE" is displayed.

3.3.6 Upload Data to an AA9600

Definition: This function is used to upload a complete parameter configuration from one AA9600 to another AA9600. The procedure is as follows: (i) place the AA9600 that will receive the new data in download mode; (ii) connect the SBI bus between the two AA9600s as illustrated beside; (iii) place the AA9600 that will transmit the data in upload mode.
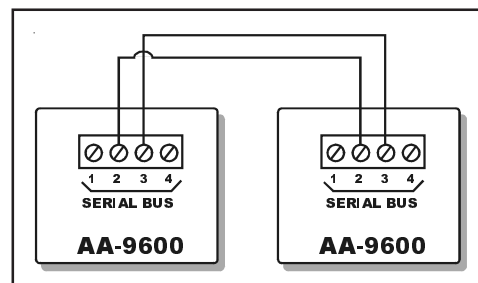
1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ⏎].

```
┌─────────────────────────────────────┐
│                                      │
│   PROGRAM AUX'S        ▲             │
│   UPLOAD               ▼             │
│                                      │
└─────────────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the UPLOAD option and press **Enter**.

```
┌─────────────────────────────────────┐
│                                      │
│   UPLOAD                             │
│   AA9600               ▲             │
│                                      │
└─────────────────────────────────────┘
```

4. Use the arrow keys ▲▼ to scroll the menu to the AA-9600 option and press **Enter**.

```
┌─────────────────────────────────────┐
│                                      │
│   UPLOAD . . . . . . . . . . . .(1)  │
│   DOWNLOAD. . . . . . . . (2)        │
│                                      │
└─────────────────────────────────────┘
```

5. Type **1** to place the AA9600 in transmit mode or **2** to place the AA9600 in receive mode. During the upload, the message "UPLOAD IN PROGRESS" is displayed on the AA9600 that is transmitting the data; the message "DOWNLOAD IN PROGRESS" is displayed on the AA9600 that is receiving the data.

3.3.7 Display Device Information

Definition: This function is used to display zones assigned to each device.

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ↵].

```
PROGRAM AUX'S          ▲
INFORMATION            ▼
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the INFORMATION option and press **Enter** [Enter ↵].

```
INFORMATION
DEVICE                 ▲
```

4. Use the arrow keys ⬆⬇ to scroll the menu to the DEVICE option and press **Enter**.

```
SELECT DEVICE
(1..99): _ _
```

5. Enter the number of the device and press **Enter**. The number 1 is reserved for the AA9600; the number 99 is reserved for the Bridge communication module.

```
KP #02                 ▲
BARN 3                 ▼
```

6. The device label is displayed. If the device selected is not the right one, use the arrow keys ⬆⬇ to scroll the menu until the correct device is selected and press **Enter** [Enter ↵]. If the device is not correctly installed, the message "NO DEVICE " is displayed and the system prompts for a new device (step 5).

```
KP#02
ZONE 22,23,24,25
```

7. The zones assigned to the device are displayed. The system then returns to the system installation menu.

3.4 ZONE ASSIGNMENTS

Definition: The Agri-Alert can have up to 96 separate zone inputs. The first 8 zones are reserved for the 8 basic zones on the Agri-Alert and cannot be changed. Zones 9-96 are spread across several devices and must be assigned at the time of installation. Assignments can be done manually or automatically. Figure 17 gives an example of a manual zone assignment.

Setting:

1. See 3.1 to access the system installation menus.

```
SYSTEM
PROGRAM ZONES      ▼
```

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ◄┘].

```
PROGRAM ZONES
ASSIGN            ▲▼
```

3. Use the arrow keys ▲▼ to scroll the menu to the ASSIGN option and press **Enter** [Enter ◄┘].

```
MANUAL . . . . . . . . . . (1)
AUTO . . . . . . . . . . . . . (2)
```
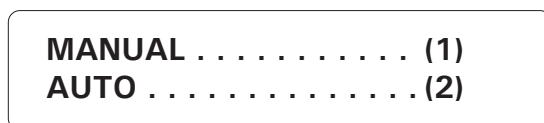
4. Type **1** to do a manual assignment (3.4.1) or **2** to do an automatic assignment (3.4.2).

Figure 17: Example of a Zone Assignment

Device	Zones	Assignment
Agri-Alert	1	1
	2	2
	3	3
	4	4
	5	5
	6	6
	7	7
	8	8
Extension Card #1	9	12
	10	17
	11	18
	12	39
	13	20
	14	21
	15	72
	16	23
TP-800	1	9
	2	10
	3	51
	4	13
	5	14
	6	15
	7	96
	8	64

3.4.1 Manual Assignment

```
SELECT ZONE
(9..96): _ _
```

5. Enter the zone number and press **Enter** [Enter] .

```
SELECT DEVICE
(1..99): _ _
```

6. Enter the device number and press **Enter** [Enter] . Device assignments are explained in Section 3.3.

```
SELECT DEVICE'S
ZONE (1..X): _
```

7. Enter the zone number on the device and press **Enter** [Enter] .

```
TO CONTINUE. . . . . . . . (1)
TO END. . . . . . . . . . . .  (2)
```

8. Type **1** to do another manual assignment or **2** to quit this function.

3.4.2 Automatic Assignments

In the case of automatic assignments, the user selects a device and enters the number of zones to be assigned for the device. Zones are assigned in the order that they physically appear on the device using the next available number in the sequence 9..96. Zones on the device that have previously been assigned are not reassigned.

Example: The following table shows an example of zone status before an automatic assignment is performed.

Device	Zones	Status
Agri-Alert	1-8	reserved
Other Devices	9	available
	10-18	assigned
	19-43	available
	44	assigned
	45-55	assigned
	56-96	available

Now let's say we want to an automatic assignment on a TP-800 with 8 zones. Suppose zones 1 and 3 are already assigned to zones 10 and 44 on the system. The following table shows zone status before and after the automatic zone assignment.

Zone	Before Assignment	After Assignment
1	10	10
2	-	9
3	44	44
4	-	19
5	-	20
6	-	21
7	-	-
8	-	-

Setting:

> **SELECT DEVICE**
> **(1..99):** _ _

6. Enter the device number and press **Enter** [Enter]. Device assignments are explained in Section 3.3.

> **NUMBER OF ZONES**
> **(1..X):** _ _

7. Enter the number of zones to assign and press **Enter** [Enter].

3.4.3 Assigning an External Zone

Definition: The Bridge-A communication device can be used to provide external zone inputs to the AA-9600. Using external inputs saves on costly wiring by tapping in on an existing wiring installation. Zone inputs can come from another AA-9600 system or from a temperature controller. For example, two AA-9600 systems can use the same zone input while defining separate settings for declaring alarms. Up to four AA-9600 systems can be connected together in this way. The Bridge-A also provides computer and modem connection possibilities (see Section 1.5.3 to connect the Bridge-A module to the AA-9600).
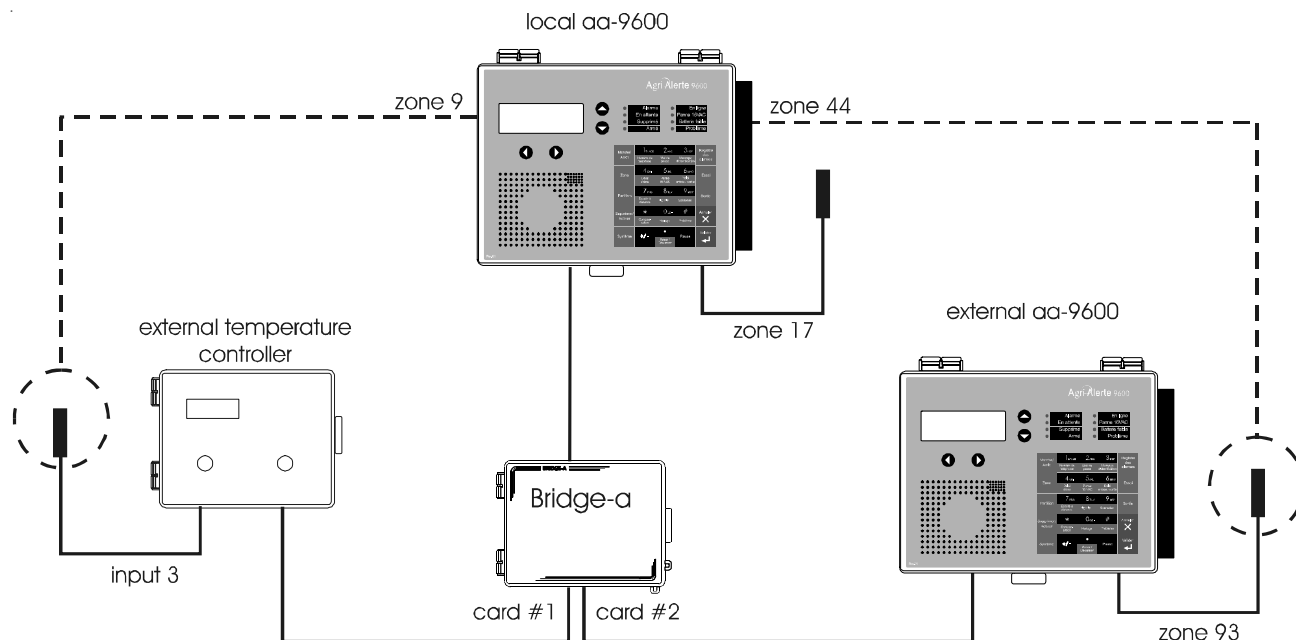
Figure 18: Example of Bridge-A Connection

In the example above, local zone 2 is assigned to input 3 of the temperature controller connected to card 1 on the Bridge-A. Local zone 44 is assigned to zone 93 of the AA9600 connected to card 2 on the Bridge-A. Local zone 17 has its own zone input.

Setting:
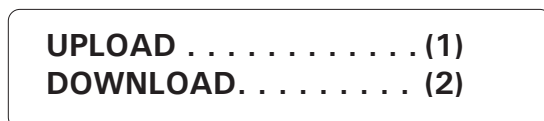
1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ⏎].

```
PROGRAM ZONES  ⬆
ASSIGN         ⬇
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the ASSIGN option and press **Enter**.

```
MANUAL . . . . . . . . . . (1)
AUTO . . . . . . . . . . . . . (2)
```

4. Type **1** to do a manual assignment.

```
SELECT ZONE
(9..96): _ _
```

5. Enter the zone number and press **Enter** [Enter ⏎].

```
SELECT DEVICE
(1..99): _ _
```

6. Enter **99** for the BRIDGE press **Enter** [Enter ⏎].

```
SELECT CARD
(1..4): _ _
```

7. The Bridge module contains up to four Combridge cards used to communicate with external networks. These cards are numbered from 1 to 4 from left to right inside the Bridge enclosure. Enter the number of the card which communicates with the device you will be using to assign the zone.

```
EXTERNAL AA9600?
```

```
YES . . . . . . . . . . . . .     (1)
NO . . . . . . . . . . . . . .     (2)
```

8. Type 1 if this card is communicating with another AA9600 system, or 2 if this is another type of card.

AA9600 card:

```
EXTERNAL ZONE
# (1..96): _ _
```

9. Enter the zone number on the external AA9600 that will be assigned to the local zone and press **Enter**.

Other Cards:

```
CONTROL ID: _ _ _
INPUT #: _ _ _
```

9. Enter the controller id number from 1 to 199 (refer to the id jumper position on the Comlink card inside the controller enclosure) and press **Enter**; enter the number of the input to use on the controller and press **Enter**.

```
TO CONTINUE. . . . . . . . (1)
TO QUIT . . . . . . . . . . . (2)
```

10. Type **1** to proceed with another zone assignment or **2** to quit this function.

3.5 SBI INITIALIZATION

3.5.1 Disable SBI in Case of Low Battery

Definition: The Agri-Alert uses the backup battery in case of a power failure. When the battery level is low, the user can choose to disable communication and interrupt power to the devices to prolong the operating time of the Agri-Alert system. By default, this parameter is set to SBI DEACTIVATED ON LO BATTERY.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter].

```
PROGRAM AUX'S
SBI                    ▲▼
```

2. Use the arrow keys ▲▼ to scroll the menu to the SBI option and press **Enter** [Enter].

```
SBI
POWER                 ▼
```

3. Press **Enter** [Enter] at the POWER option.

```
SBI DEACTIVATED
ON LO BATTERY
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

4. To modify the current setting, press **Enter** [Enter] . Otherwise, press **Cancel** [Cancel].

```
SBI OFF ON LO BATTERY?


```

```
YES . . . . . . . . . . . . .   (1)
NO . . . . . . . . . . . . . .   (2)
```

5. Type **1** to disable the SBI or **2** to keep operating the SBI in case of a power failure. The system returns to the PROGRAM AUX'S menu.

3.5.2 Adjust SBI Speed

Definition: This parameter is useful if you experience frequent communication errors between the Agri-Alert and the external devices. Reducing the SBI speed considerably reduces the number of errors. By default, the SBI speed is high.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ↵] .

```
PROGRAM AUX'S
SBI                    ⬍
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the SBI option and press **Enter.**

```
SBI
SPEED                  ▲
```

4. Use the arrow keys ⬆⬇ to scroll the menu to the SPEED option and press **Enter.**

```
SBI SPEED
HI
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

5. To modify the current speed, press **Enter** [Enter ↵] . Otherwise, press **Cancel** [Cancel ✕] .

```
HI . . . . . . . . . . . . . . . . .(1)
LO . . . . . . . . . . . . . . . .(2)
```

6. Type **1** for a fast speed and **2** for a slow speed. The system returns to the PROGRAM AUX'S menu.

3.5.3 Monitor SBI

Definition: This function sounds the alarm if the SBI supply is defective. By default, this parameter is enabled.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter].

> **PROGRAM AUX'S**
> **MONITORING** ▲▼

3. Use the arrow keys ▲▼ to scroll the menu to the MONITORING option and press **Enter** [Enter].

> **MONITORING**
> **SBI** ▲▼

4. Use the arrow keys ▲▼ to scroll the menu to the SBI option and press **Enter** [Enter].

> **MONITORING**
> **STATUS: ENABLE**

> **TO MODIFY. . . . . (↵)**
> **TO QUIT. . . . . . . (X)**

5. To modify the current state, press **Enter** [Enter]. Otherwise, press **Cancel** [Cancel].

> **ENABLE. . . . . (1)**
> **DISABLE . . . . (2)**

6. Type **1** to enable, or **2** to disable monitoring of the SBI. The new state is displayed and the system returns to the PROGRAM AUX'S menu.

3.6 SYSTEM CLOCK

Definition: The system has an internal clock that must be set when you first turn the unit on. As a default, the system clock is set to 12:00 PM JANUARY 1, 2003 in AM/PM format. The battery backup used by the Agri-Alert will keep the time and date in case of a power failure. The system displays the message **ADJUST CLOCK** periodically if the date and time have not been set.

Setting:

1. Press the **Clock** key [O az- Clock]. The current date and time are displayed.

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .    (X)
```

2. Type **Enter** [Enter ↵] to modify the current settings.

```
DATE      . . . . . . . . .(1)
TIME. . . . . . . .    (2)
```

3. Type **1** to change the date:

```
ENTER NEW DATE
_ _ / _ _ / _ _ _ _   M / D / Y
```

```
AM/PM . . . . . . . .   (1)
24 HOURS . . . . . .   (2)
```

or **2** to change the time:

```
ENTER NEW TIME
_ _ : _ _ (HR:MIN)
```

4. Type **1** for AM/PM time or **2** for 24-hours time.

Note that you must press **Enter** after typing each value to step to the next one. For example, to enter the time 9:14, the sequence is: **9 Enter 14 Enter**. If you selected AM/PM time, an additional screen appears:

```
AM . . . . . . . . . . . (1)
PM . . . . . . . . . . .(2)
```

5. Type **1** or **2**. The system updates the Date/Time display.

3.7 TEMPERATURE UNITS

Definition: Temperatures can be displayed either in Fahrenheit or Celsius units. All temperatures will be displayed according to this definition. The default is Fahrenheit.

Setting:

1. Press the **ºC/ºF** key $\boxed{\substack{8\text{Tuv}\\ {}^{\circ}\text{C}/{}^{\circ}\text{F}}}$. The current value is displayed.

```
┌────────────────────────────┐
│  º F                       │
│                            │
│                            │
└────────────────────────────┘
```

```
┌────────────────────────────┐
│  TO MODIFY. . . . .   (↵)   │
│  TO QUIT. . . . . . .   (X)  │
└────────────────────────────┘
```

2. To modify the current temperature units, press **Enter** $\boxed{\substack{\text{Enter}\\ \downarrow}}$. Otherwise, press **Cancel** $\boxed{\substack{\text{Cancel}\\ \times}}$.

```
┌────────────────────────────┐
│  CELSIUS . . . . . . . . . . . (1)  │
│  FAHRENHEIT. . . . . . . . (2)  │
└────────────────────────────┘
```

3. Type **1** for Celsius units, or **2** for Fahrenheit units. The new unit is displayed and the system returns to the Date/Time display.

3.8 DISPLAY CONTRAST

Setting:

1. Press the **System** key $\boxed{\text{System}}$.   The current revision number of the software program is displayed. The installer password must then be entered.

> **ENTER INSTALLER**
> **PASSWORD:** _ _ _ _

2. Enter the installer password (9601 by default) and press **Enter** $\boxed{\text{Enter} \, \lrcorner}$.

> **SYSTEM**
> **PROGRAM SYSTEM**   ⬍

3. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is PROGRAM SYSTEM and press **Enter** $\boxed{\text{Enter} \, \lrcorner}$.

> **PROGRAM SYSTEM**
> **CONTRAST**   ⬍

4. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is CONTRAST. Type **Enter** $\boxed{\text{Enter} \, \lrcorner}$ to modify the display contrast or **Cancel** $\boxed{\text{Cancel} \, \times}$ to exit this function.

> **CONTRAST**
> **80%**

> **80%**   ⬍
> **TO SAVE . . . . (⏎)**

5. Use the up-arrow key ▲ to increase the contrast. Use the down-arrow key ▼ to decrease the contrast. When you are finished, type **Enter** to save the new setting. The system displays the new setting as a percentage. The final setting is displayed and the system returns to the PROGRAM SYSTEM display.

3.9 USER ID MESSAGE

Definition: When giving status reports and alarm messages, the system identifies itself with a voice recording provided by the user. The user can record up to 7 minutes and 30 seconds of ID messages for the system and zones (see Section 3.10). In addition, the maximum time allowed for each individual message is 30 seconds.

Setting:

1. Press the **ID message** key $\boxed{\begin{smallmatrix}3_{DEF}\\ \text{ID message}\end{smallmatrix}}$.

```
┌──────────────────────────────┐
│                              │
│   ID MESSAGE          ▲      │
│   SYSTEM              ▼      │
│                              │
└──────────────────────────────┘
```

2. Use the arrow keys ▲▼ to scroll the menu to the SYSTEM option and press Enter. The current ID message is played over the system speaker. If no ID message has been recorded yet, the system displays NONE.

```
┌──────────────────────────────┐
│   ID MESSAGE                 │
│   SYSTEM                     │
└──────────────────────────────┘

┌──────────────────────────────┐
│   ID MESSAGE                 │
│   STATUS:  ENABLE            │
└──────────────────────────────┘

┌──────────────────────────────┐
│   ID MESSAGE                 │
│   PLAY                       │
└──────────────────────────────┘

┌──────────────────────────────┐
│   TO MODIFY. . . . .  (↵)    │
│   TO QUIT. . . . . . .  (X)  │
└──────────────────────────────┘
```
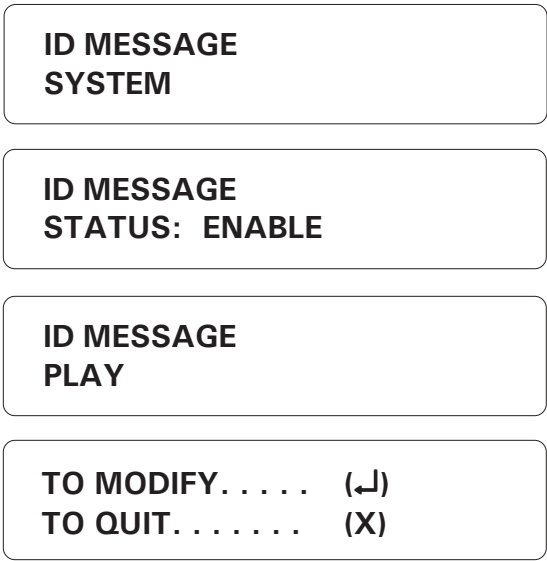
3. To modify the current message, press **Enter** $\boxed{\begin{smallmatrix}\text{Enter}\\ ↵\end{smallmatrix}}$. Otherwise, press **Cancel** $\boxed{\begin{smallmatrix}\text{Cancel}\\ \times\end{smallmatrix}}$.

```
┌──────────────────────────────┐
│   STATUS . . . . . . . .(1)  │
│   MESSAGE . . . . . . (2)    │
└──────────────────────────────┘
```
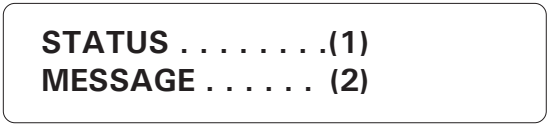
To Modify ID Message:

4. Type **2** to modify ID Message.

> **VOICE MEMORY**
> **TOTAL: 7 MIN, 30 SEC**

> **FOR RECORDING**
> **PRESS 3 AND HOLD**

5. Press the ID message key [3DEF ID message] and hold while you speak the message into the

microphone on the front panel.

> **VOICE MEMORY**
> **ID: 30 SEC**

6. The screen will count down from the maximum time remaining for one id messages until the ID message key is released.

> **ID MESSAGE**
> **PLAY**

7. The new message is played over the speaker and the system returns to the Date/Time display.

To Enable / Disable ID Message:

> **STATUS . . . .(1)**
> **MESSAGE . . . . . . (2)**

4. Type **1** to enable or disable the ID Message.

> **ENABLE. . . . . (1)**
> **DISABLE . . . . (2)**

5. Type **1** to enable, or **2** to disable the ID Message. The new state is displayed and the system returns to the Date/Time display.

3.10 DELETING ALL ID MESSAGES

Definition: This function is used to delete the system ID message as well as all the zone ID messages recorded by the user. Each new message decreases the total recording time of 7 minutes, 46 seconds. This is true even if you rerecord a particular message. For example, if you have recorded a 10 second message for zone 1 and you record a new 10 second message for this zone, zone 1 will occupy 20 seconds of recording time. By deleting all id messages, you can erase recording errors and free up the recording memory.

Setting:

1. Press the **ID message** key ⬚.

```
┌─────────────────────────────────┐
│                                 │
│   ID MESSAGE                    │
│   ERASE ALL            ▲        │
│                                 │
└─────────────────────────────────┘
```

2. Use the arrow keys ⬆⬇ to scroll the menu to the ERASE ALL option and press **Enter** ⬚.

```
┌─────────────────────────────────┐
│   YES . . . . . . . . . . . .   (1)  │
│   NO . . . . . . . . . . . . .   (2)  │
└─────────────────────────────────┘
```
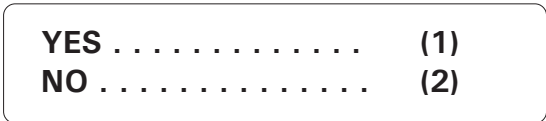
3. Type **1** to erase all ID messages or **2** to quit this function.

3.11 DEFAULT VALUES

Definition: The system has default values programmed for all parameters except telephone numbers and user passwords. These values are present when you first turn the unit on. If you have changed some or all of the parameter values and would like to return to the original default values initialized at the factory, follow the procedure outlined below. <u>All the current parameter definitions will be erased and replaced by the default values.</u> Table 1 gives the default values for all system parameters.

1. Press the **System** key [System]. The current revision number of the software program is displayed. The installer password must then be entered.

```
ENTER INSTALLER
PASSWORD: _ _ _ _
```

2. Enter the installer password (9601 by default) and press **Enter** [Enter].

```
SYSTEM
PROGRAM SYSTEM   ♦
```

3. Using the up and down-arrow keys [▲][▼] , scroll the menu until the item displayed is PROGRAM SYSTEM and press **Enter** [Enter] .

```
PROGRAM SYSTEM
SET DEFAULTS      ▲
```

4. Using the up and down-arrow keys [▲][▼] , scroll the menu until the item displayed is SET DEFAULTS and press **Enter** [Enter]. The current parameter definitions will be erased and replaced by default values.

```
TO SET . . . . . . . .   (1)
TO QUIT . . . . . . .   (2)
```

5. Enter **1** to set default values or **2** to cancel. The system displays the message **PLEASE WAIT** while initializing the parameter values. When the screen turns back on, the system has been initialized.

Table 1: Default Values

PARAMETER		DEFAULT VALUE	USER VALUE	RANGE
TEMPERATURE UNITS		°F		°F / °C
CLOCK	TIME	12:00 PM		----
	MODE	AM/PM		AM/PM or 24-HOURS TIME
DATE		SAT JAN 1, 2003		----
MUTE		DISABLED		ENABLED / DISABLED
ID MESSAGE		DISABLED		ENABLED / DISABLED
BUSY LINE TRIES		1		0 TO 3 tries
RING UNTIL ANSWER		8		1 TO 20 rings
ANSWERING MACHINE		DISABLED		ENABLED / DISABLED
LINE SEIZURE		DISABLED		ENABLED / DISABLED
MESSAGE REPETITIONS		3		2 TO 15 times
CALL START DELAY		1 min.		0 TO 59 minutes
TIME BETWEEN CALLS		1 min.		0 TO 59 minutes
# OF CALL REPETITIONS		7		1 TO 7
WAITING TIME FOR DIAL TONE		4 sec.		1 to 15 seconds
PAUSE DELAY KEY		4 sec.		1 to 255 seconds
PULSE/TONE		TONE		PULSE/TONE
PHONE LINE CUT MONITORING		ENABLED		ENABLED / DISABLED
DTMF SPEED		80mS		50 to 250 mS
PULSE SPEED	MAKE	39 mS		10 to 100 mS
	BREAK	61 mS		10 to 100 mS
	INTERDIGIT	0.8 sec.		0.6 to 3 seconds

-PARAMETER		DEFAULT VALUE	USER VALUE	RANGE
ON-SITE LISTENING	TIME	30 sec.		0 TO 59 seconds
	STATUS	DISABLED		ENABLED / DISABLED
RESTORE CALLS		DISABLED		ENABLED / DISABLED
SIREN DELAY		0 min.		0 to 20 minutes
SIREN TIME ON		5 min.		1 to 20 minutes
SIREN MONITORING		ENABLED		ENABLED / DISABLED
ENTRY DELAY		30 sec.		0 to 5 minutes, 59 seconds
EXIT DELAY		1 min		0 to 5 minutes, 59 seconds
RECALL TIME		30 min.		from 10 min. to 12 hours, 59 minutes
ALARM MEMORY		EMPTY		
TROUBLE INFORMATION		EMPTY		
16 VAC FAILURE	DELAY	30 min.		0 to 59 minutes, 0 to 59 seconds
	STATUS	ENABLED		ENABLED / DISABLED
T° PROBE CALIBRATION		0°		-10° TO 10° (F/C)
OUTDOOR T° COMPEN.	OFFSET	5°F		0°F - 36°F
	STATUS	DISABLED		ENABLED / DISABLED
OUTDOOR PROBE		ZONE 1		1 to 96
RELAY OUTPUTS #1 & #2		DISABLED		ENABLED / DISABLED
DISPLAY CONTRAST		50%		10 TO 100% in steps of 10%
SBI SPEED		HI		LO / HI
SBI STATE ON LOW BATTERY		DEACTIVATED		ACTIVATED / DEACTIVATED
SBI MONITORING		ENABLED		ENABLED / DISABLED
12VDC MONITORING		ENABLED		ENABLED / DISABLED
FORCE ARMING		DISABLED		ENABLED / DISABLED

Default Zone Configurations

PARAMETER	ZONE 1	ZONE 2	ZONES 3 - 96	RANGE
SENSOR TYPE	OUTDOOR TEMPERATURE	DRY CONTACT	TEMPERATURE	DRY CONTACT/TEMP./4-20mA/AC CURRENT/0-5V
OPEN / CLOSED CIRCUIT	----	N.C.	----	N.O. / N.C.
END OF LINE RESISTOR	----	WITHOUT EOLR	----	WITH / WITHOUT EOLR
DIALOUT	ENABLED	ENABLED	ENABLED	ENABLED / DISABLED
SIREN	ENABLED	ENABLED	ENABLED	ENABLED / DISABLED
RECOGNITION TIME	1 min.	1 min.	1 min.	0 to 59 hours, 0 to 59 minutes, 0 to 59 seconds
LOW SET POINT	----	----	50°F	-40°F to 149°F
HIGH SET POINT	----	----	85°F	-40°F to 149°F
CRITICAL TEMPERATURE	----	----	95°F	-40°F to 149°F

The default **reset time** on all zones is 1 sec. It ranges from 0 to 59 hours, 59 minutes, 59 seconds. By default, zone 1 is a temperature zone assigned to the **outdoor probe** for the outdoor temperature compensation feature. All zones are disabled initially.

3.12 MONITOR 12VDC OUTPUT

Definition: This function sounds the alarm when the connection to the 12VDC output is disrupted. By default, this feature is enabled.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│  PROGRAM AUX'S                  │
│  MONITORING            ⬍        │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the MONITORING option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│  MONITORING                     │
│  12VDC OUTPUT        ▲          │
│                                 │
└─────────────────────────────────┘
```

4. Use the arrow keys ⬆⬇ to scroll the menu to the 12VDC OUTPUT option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│  MONITORING                     │
│  STATUS: ENABLE                 │
│                                 │
└─────────────────────────────────┘
┌─────────────────────────────────┐
│  TO MODIFY. . . . .   (↵)       │
│  TO QUIT. . . . . . .  (X)      │
│                                 │
└─────────────────────────────────┘
```

5. To modify the current state, press **Enter** [Enter ↵]. Otherwise, press **Cancel** [Cancel X].

```
┌─────────────────────────────────┐
│  ENABLE. . . . . . . .  (1)     │
│  DISABLE . . . . . . .  (2)     │
│                                 │
└─────────────────────────────────┘
```

6. Type **1** to enable, or **2** to disable monitoring of the 12VDC output. The new state is displayed and the system returns to the PROGRAM AUX'S menu.

3.13 TEST PROCEDURE

The Agri-Alert system has the capability of testing certain functions from the key-board. To start the test procedure, press the **Test** | Test | key. Press **Cancel** to skip to the following test.

Outline of Test Procedure:

1 — **TEST LEDS**: The front panel LEDs are turned on and turned off, one by one, in sequence from top to bottom and from left to right.

2 — **TEST LCD**: The LCD display is tested. The LCD backlight is turned off and the display contrast is tested in steps from maximum to minimum contrast. Each charac-ter matrix is turned on, two by two, in sequence from left to right. Make sure all the pixels in each square light up.

3 — **TEST SBI**: The communication link is tested.

4 — **TEST BUZZER**: The internal buzzer is tested (4 buzzes).

5 — **TEST SIREN**: Two short beeps are sent to the siren (if a siren is hooked up).

6 — **SYSTEM ID**: The Agri-Alert ID message is played over the speaker. Make sure the message is audible.

7 — **USER ID**: The user ID message is played over the speaker. Make sure the mes-sage is audible. If no message has been recorded, the system displays: NONE.

8 — **DIALOUT SEQUENCE**: The dialout sequence is launched and the message "Test call" is transmitted. If no telephone numbers are defined, the system asks the user to acknowledge from the keyboard: "ACK ALARMS...PRESS <1>". You can also press **Cancel** to stop the dialout sequence and acknowledge the alarm from the keyboard.

3.14 VIEWING SOFTWARE VERSION

Settings:

1. Press the **System** key ⬚System⬚.   The current revision number of the software program is displayed. The installer password must then be entered.

```
┌─────────────────────────────────┐
│  SOFTWARE                       │
│            REV.  x.xxx          │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  ENTER INSTALLER                │
│  PASSWORD: _ _ _ _              │
│                                 │
└─────────────────────────────────┘
```

2. Enter the installer password (9601 by default) and press **Enter** ⬚Enter⬚.

```
┌─────────────────────────────────┐
│  SYSTEM                         │
│  PROGRAM SYSTEM    ⬍            │
│                                 │
└─────────────────────────────────┘
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM SYSTEM and press **Enter** ⬚Enter⬚ .

```
┌─────────────────────────────────┐
│  PROGRAM SYSTEM                 │
│  VERSION SOFTWARE ⬍            │
│                                 │
└─────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is VERSION SOFTWARE and press **Enter** ⬚Enter⬚ . The version of the software is displayed. The system then returns to PROGRAM SYSTEM menu.

```
┌─────────────────────────────────┐
│  SOFTWARE                       │
│            REV.  x.xxx          │
│                                 │
└─────────────────────────────────┘
```

CHAPTER FOUR: ZONE CONFIGURATION

The Agri-Alert system is a monitoring device used to detect alarm conditions. Different types of sensors can be connected to it. When an alarm is detected on any one of the inputs, the system reports the alarm on-site and starts the dialout sequence. Each alarm input can be enabled or disabled separately or in conjunction with other inputs. An alarm stays active until it is acknowledged by a user, either on-site or over the phone. When an alarm occurs, the system stores all the relevant information: the number of the input, the type of alarm and the date and time of occurrence. When the alarm is acknowledged, the system also stores the user who acknowledged the alarm and the date and time of acknowledgment.

By default, the siren output and the dialout sequence option are both enabled for each zone. Refer to section 4.1.7 to disable the siren and to section 5.2.12 to disable the dialout sequence on specific zones.

Zone Definition: A zone is an input configured to respond to the type of sensor connected to it. Sensors are installed by the user to detect alarm conditions. The basic Agri-Alert system allows up to 8 different zones. This capability can be expanded to 24 zones by adding two extension cards, each one providing 8 additional zones (see the chapter on installation). The alarm types supported are dry contact, dry contact burglar, temperature, 4-20mA, AC current sensor and 0-5V inputs. A reset time is defined for all zones. The other parameters apply to each individual zone, i.e. the recognition time, the siren enable and the dialout sequence enable. The recognition time does not apply to dry contact burglar zones. If any one of these parameters is not entered when a zone is configured, the system will display **INCOMPLETE DATA** whenever the parameter definitions are displayed for that zone. Note that when you reconfigure a zone, the system erases the alarm memory for all zones. Once a zone is configured, it must be activated by the user to start alarm detection on that zone.

Temperature Curves: For temperature zones, the user can program a curve of reference values with up to 10 points. This is used to adjust alarm conditions as a function of time.

Recognition Time: This is the time an alarm input must be active before it constitutes a valid alarm condition. It is used to configure all alarm inputs except burglar inputs. Figure 19 below illustrates this. At "A", an alarm situation occurs when the temperature exceeds the high set point. At "B", the temperature returns to normal. However, only 5 seconds have elapsed and the recognition time is 10 seconds. Therefore, no alarm occurs. At "C", a new alarm situation occurs. At "D", (22 - 12) = 10 seconds have elapsed; the recognition time has elapsed and an alarm is reported. The recognition time ranges from 0 to 59 hours, 0 to 59 minutes, 0 to 59 seconds. The default is 1 minute.

Figure 19: Illustration of Recognition Time
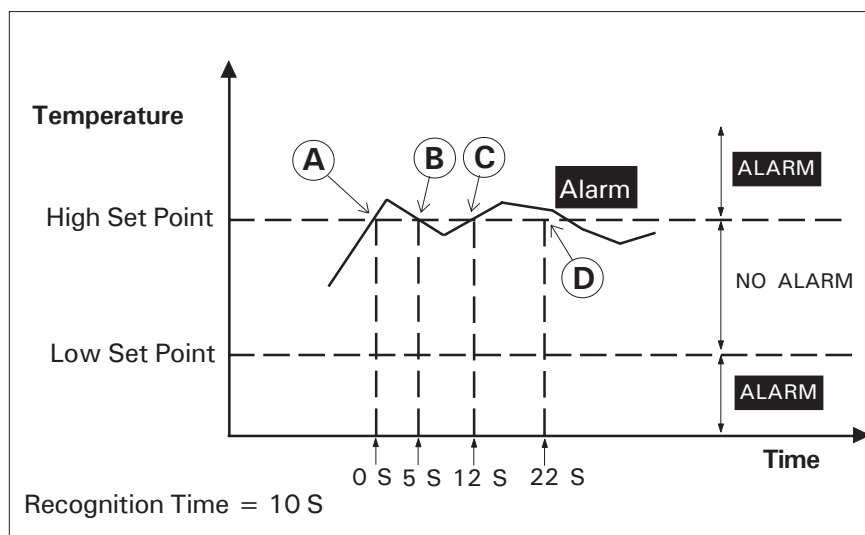
4.1 CONFIGURATION

The following section describes the different types of zones. To configure a zone, choose the PROGRAM ZONE option after pressing the **System** key | System | followed by SETUP (see section 3.1). **Note that zones 9-96 must first be assigned to a device before being configured (see section 3.4).**

4.1.1 Dry Contact Input

Definition: Dry contacts can be either normally open (NO) or normally closed (NC) circuits. In addition, they can be configured for an end of line resistor (EOLR) and a double end of line resistor (DEOLR).

End of line resistor: Adding a single or double end of line resistor will help the system detect wiring problems. This is illustrated in the figure below. In the center diagram, an open wire has occurred. The system detects this by reading the resistance on the circuit. The "Trouble" LED on the front panel will turn on when this happens. However, if a short circuit occurs on one of the circuits with a single end of line resistor, it will be interpreted as an alarm. To detect this as a wiring problem, a second end of line resistor is needed. Figure 21 illustrates this.

Figure 20: Normally Open Circuits With EOLR
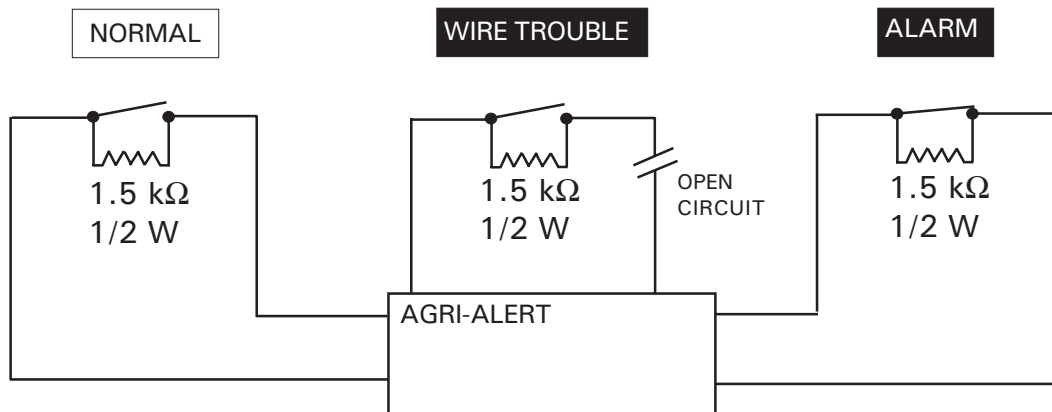
Figure 21: Normally Open Circuits with DEOLR
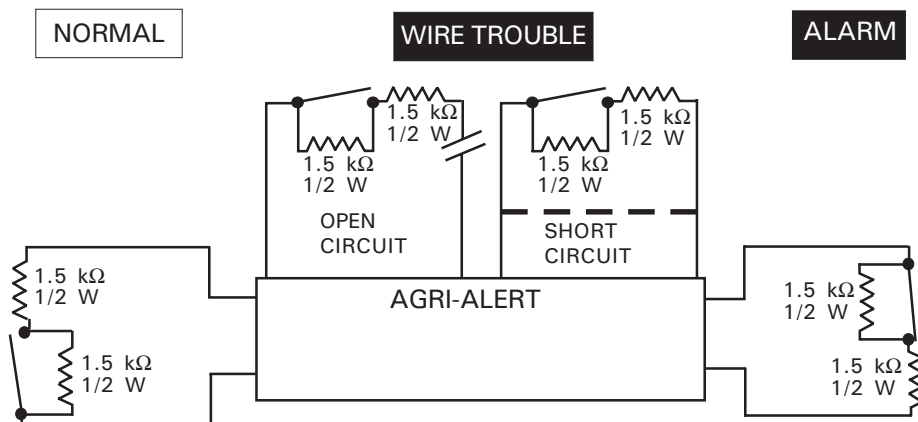
Figure 22: Examples of Zone Connections Without EOLR

NORMALLY CLOSED CIRCUIT

NORMALLY OPEN CIRCUIT
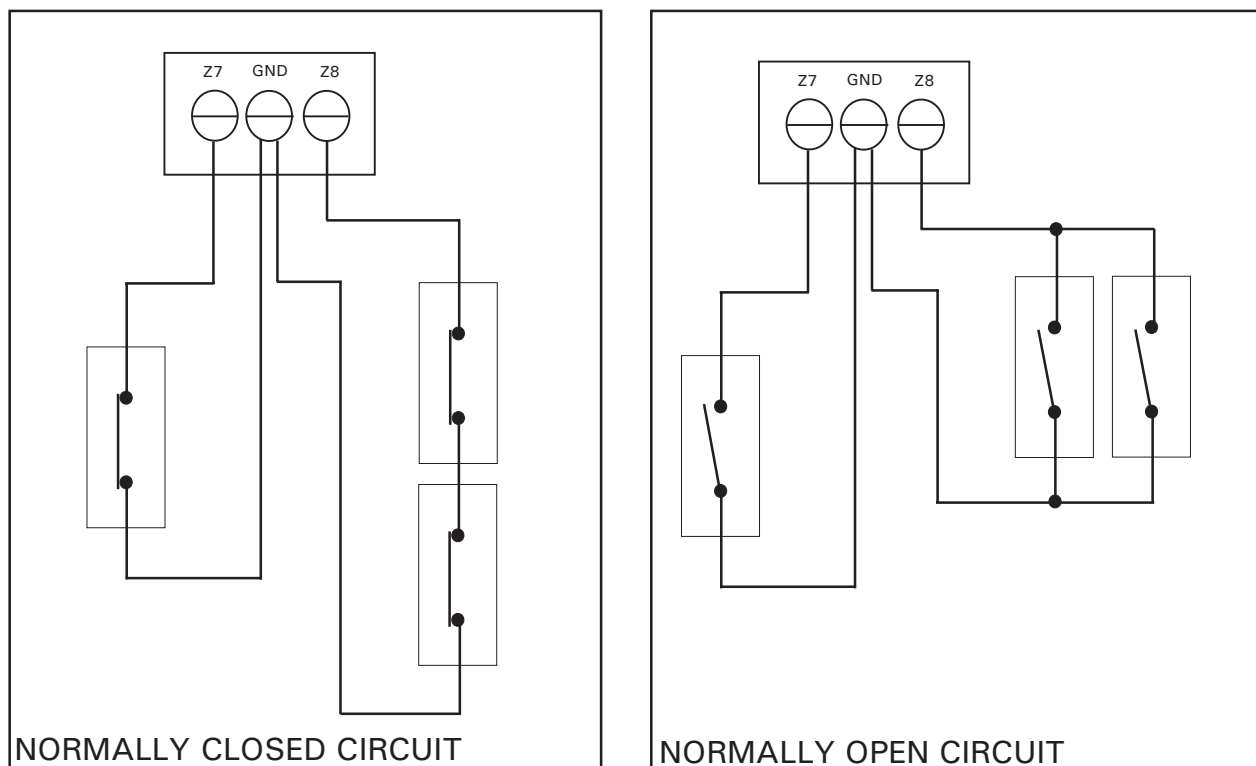
Figure 23: Examples of Zone Connections with EOLR

1.5 kΩ
1/2 W

N.C. CIRCUIT WITH EOLR

1.5 kΩ
1/2 W

N.O. CIRCUIT WITH EOLR
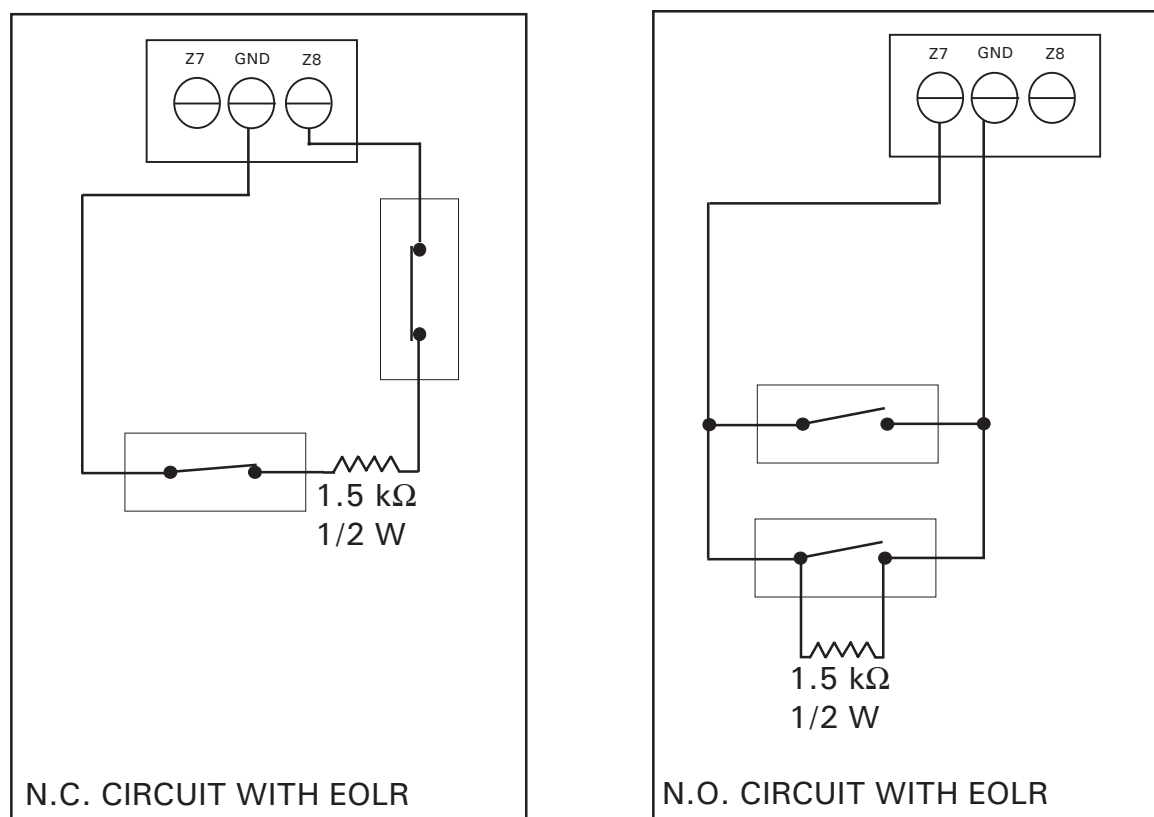
Figure 24: Examples of Zone Connections with DEOLR

N.C. CIRCUIT WITH DEOLR

N.O. CIRCUIT WITH DEOLR
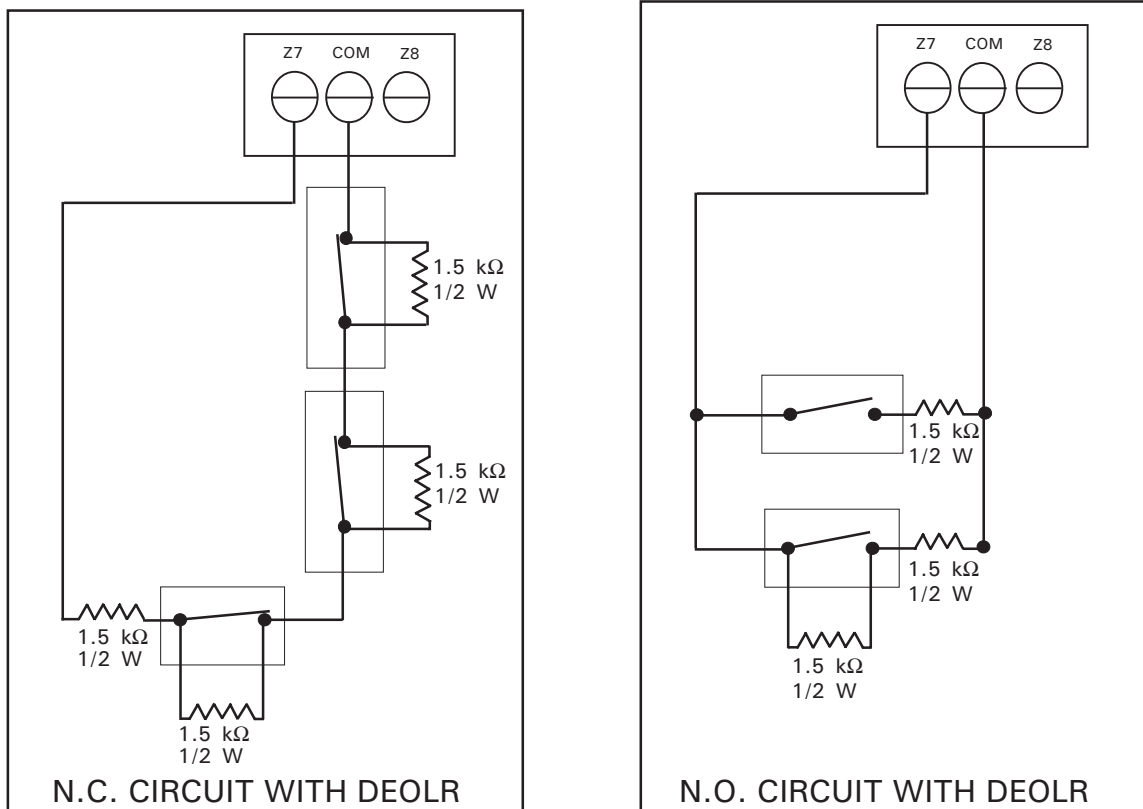
Figures 22, 23 and 24 show examples of zone connections. Note that when you add an EOLR to a circuit, the resistor must be connected to the sensor that is furthest from the Agri-Alert system.

When using a double end of line resistor, a maximum of three zones can be connected on the same circuit.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ⏎] .

> **PROGRAM ZONES**
> **SETUP**   ▼

3. Press Enter at the SETUP option.

> **SELECT ZONE**
> **(1 .. 96):** _ _

4. Type the number of the zone to configure and press **Enter** [Enter ⏎] . To stop the display, press **Cancel** [Cancel ✕] . The current zone configuration is displayed. Default parameter values for zones are given in Section 3.11.

> **TO MODIFY. . . . .   (⏎)**
> **TO QUIT. . . . . . .   (X)**

5. Press **Enter** to modify the zone or **Cancel** to exit this function. If the zone selected is the outdoor probe used for the outdoor temperature compensation feature and the compensation feature is currently enabled, the system displays the message: **DEACTI- VATE OUTDOOR STATUS**. If you want to use the compensation feature, you will have to assign another probe as the outdoor probe (See Section 7.3).

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS RECONFIGURED.**

> **TYPE OF SENSOR**
> **DRY CONTACT**   ▼

6. The different types of sensors are presented in a scrolling menu. Use the up and down arrow keys ⬆⬇ to select DRY CONTACT and press **Enter**.

> **BURGLAR ZONE?**

> **YES . . . .   (1)**
> **NO . . . .   (2)**

7. Type **2** for an ordinary dry contact input.

> **NORM. OPEN** . . . . (1)
> **NORM. CLOSED** . . . . . . (2)

8. Type **1** or **2** according to the configuration desired.

> **W/ RESISTOR** . . . . (1)
> **W/O RESISTOR** . . . (2)

9. Type **1** to configure the input with an end of line resistor. Type **2** to configure the input without an end of line resistor.

> **SINGLE**. . . . . (1)
> **DOUBLE** . . . . (2)

10. Type **1** to configure the input for a single end of line resistor. Type **2** to configure the input for a double end of line resistor.

> **RECOGNITION TIME**
> _ _ :_ _ : _ _

11. To enter the recognition time, enter the hours; press **Enter.** Enter the minutes; press **Enter.** Enter the seconds; press **Enter**. It ranges from 0h;0m;0s to 59h;59m;59s.

4.1.2 Dry Contact Burglar Input

Definition: Dry contact inputs can be configured as burglar zones. These zones are armed or disarmed as a group using a password. The connections used are exactly as explained for dry contact inputs (see Section 4.1.1). No recognition time is needed for this type of zone; alarms are validated as soon as they are detected. A delay can be defined to allow the authorized user to arm or disarm the system without setting off an alarm. The user can also sound a chime each time a zone changes its state.

Instant Burglar Zone: In an instant burglar zone, an alarm is sounded as soon as an alarm condition is present. This type of zone is used to protect windows, for example.

Delay Burglar Zone: This type of zone is used at the entry and exit points of a building. In a delay burglar zone, alarm conditions are not signalled until a delay has elapsed. The Exit Delay allows the user to leave the building while arming the system. The Entry Delay allows the user to enter the building and disarm the system without setting off an alarm. In each case, the same delay applies to all delay burglar zones.

At-Home Arming Zones: At-Home arming zones are defined as opposed to those zones located on the perimeter of a building. Normally, these are motion detectors. If the system is armed and no one has left the building within the exit delay, at-home arming zones are bypassed. The user can then move about inside the building and protect the perimeter, i.e. windows and entry points. In order for at-home arming zones to be bypassed, it is essential that zones around the perimeter be in a normal state for the entire duration of the exit delay. Take for example the case when the system is armed and a door remains open. If the door is closed before the exit delay has elapsed, at-home arming zones will not be bypassed. In this case, the system cannot tell if the user has left the building or not.

The following diagram shows a typical setup:

Figure 25: Typical Application of Burglar Zones
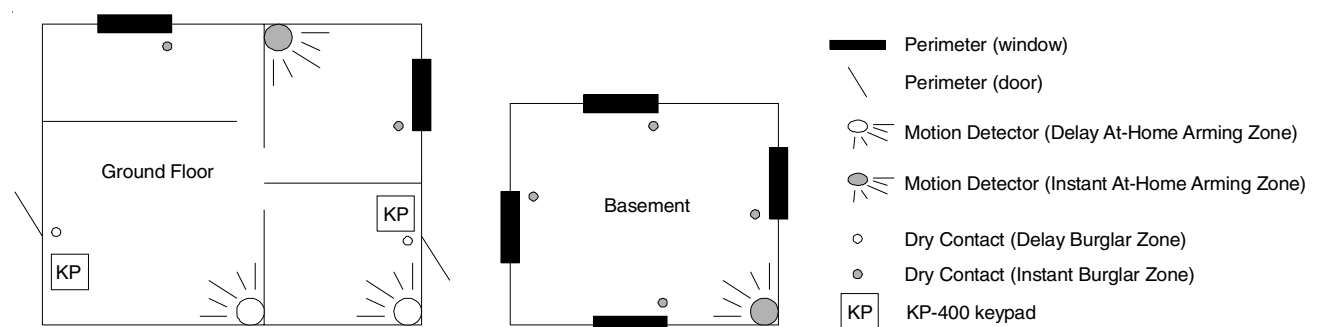
The key sequence for arming or disarming is as follows:

▪ followed by the password sequence **9** **6** **0** **0** (by default)

If force arming is disabled (see below), all burglar zones must be in a normal state to arm the system, i.e. no alarm conditions must be present. If the arming sequence fails, zones with alarms are listed on the display.

When the system is armed, the system starts beeping and the screen immediately displays a countdown of the exit delay (in minutes and seconds). The keypad is locked at this point: the only key sequence allowed is the disarming sequence. After the exit delay has elapsed, all burglar zones are armed and alarms are immediately declared as they are detected <u>for all burglar zones</u>. The system displays the message "BURGLAR ZONES ARMED" periodically on the screen and the password feature is enabled.

> ☞ The **Password** key cannot be accessed at this point unless the burglar zones are disarmed.

When an alarm occurs in a burglar zone with an entry delay, the screen displays a countdown of the entry delay. During this time, the piezoelectric loudspeaker beeps (the loudspeaker stops when the key sequence is entered). If no one has disarmed the system after the entry delay has elapsed, an alarm is declared. Disarming will affect all currently active burglar zones. The system displays the message "BURGLAR ZONES DISARMED" on the screen.

A burglar zone cannot be included in a partition. If a zone already belonging to a partition needs to be changed to a burglar zone, it must first be removed from the partition. <u>Otherwise, this is done automatically by the system.</u>

Force Arming: Normally, you cannot arm the system when alarm conditions are present on one or more zones. However, if the "Force Arming" option has been enabled by the installer, (see sec. 7.10), the user can arm the system even if some zones have alarms. This applies only to delay burglar zones, however. An instant burglar zone with an alarm condition would only set off a new alarm as soon as the system were armed.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⏶⏷ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ↵].

```
┌─────────────────────────────┐
│  PROGRAM ZONES              │
│  SETUP            ▼         │
└─────────────────────────────┘
```

3. Press Enter at the SETUP option.

```
┌─────────────────────────────┐
│  SELECT ZONE                │
│  (1 .. 96): _ _             │
└─────────────────────────────┘
```

4. Type the number of the zone to configure and press **Enter** [Enter ↵]. The current zone configuration is displayed. To stop the display, press **Cancel** [Cancel ✕]. Default parameter values for zones are given in Section 3.11.

```
┌─────────────────────────────┐
│  TO MODIFY. . . . .   (↵)   │
│  TO QUIT. . . . . . .  (X)  │
└─────────────────────────────┘
```

5. Press **Enter** to modify the zone or **Cancel** to exit this function. If the zone selected is the outdoor probe used for the outdoor temperature compensation feature and the compensation feature is currently enabled, the system displays the message: **DEAC-TIVATE OUTDOOR STATUS**. If you want to use the compensation feature, you will have to assign another probe as the outdoor probe (See Section 7.3).

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS RECONFIGURED.**

```
┌─────────────────────────────┐
│  TYPE OF SENSOR             │
│  DRY CONTACT      ▼         │
└─────────────────────────────┘
```

6. The different input types are displayed in a scrolling menu. Using the up and down-arrow keys ⏶⏷ , scroll the menu until the item displayed is DRY CONTACT and press **Enter** [Enter ↵] .

```
┌─────────────────────────────┐
│  BURGLAR ZONE?              │
│                             │
└─────────────────────────────┘
```

```
YES . . . . . . . . . .    (1)
NO . . . . . . . . . .     (2)
```

7. Type **1** for a burglar zone input.

```
AT-HOME ARMING
BURGLAR ZONE?
```

```
YES . . . . . . . . . . .    (1)
NO. . . . . . . . . . . .    (2)
```

8. Type **1** if this is an at-home arming zone; otherwise type **2**.

```
INSTANT . . . . . . .    (1)
DELAY . . . . . . . ..    (2)
```

9. Type **1** if no entry delay is used for this zone. Type **2** to use an entry delay for this zone.

```
ACTIVATE CHIME?
```

```
YES . . . . . . . . . . .    (1)
NO . . . . . . . . . . .     (2)
```

10. Type **1** to activate the chime each time zone state changes; otherwise type **2**.

```
NORM. OPEN . . . . . . . .  (1)
NORM. CLOSED . . . . . .  (2)
```

11. Type **1** or **2** according to the configuration desired.

```
W/ RESISTOR . . . .  (1)
W/O RESISTOR . . .  (2)
```

12. Type **1** to configure the input with an end of line resistor. Type **2** to configure the input without an end of line resistor.

```
SINGLE . . . . . . . . . . . . .(1)
DOUBLE . . . . . . . . . . . (2)
```

13. Type **1** to configure the input for a single end of line resistor. Type **2** to configure the input for a double end of line resistor. The system returns to the zone number prompt.

4.1.3 Temperature Input

Definition: A temperature input responds to changes in temperature readings from a sensor. A high and low set point is entered, defining a range of temperatures between the set points that do not set off an alarm condition (fig. 26). A temperature curve can also be programmed (fig. 27). This allows to detect temperature alarms as a function of a normal temperature value that changes over time.

Figure 26: Temperature Input
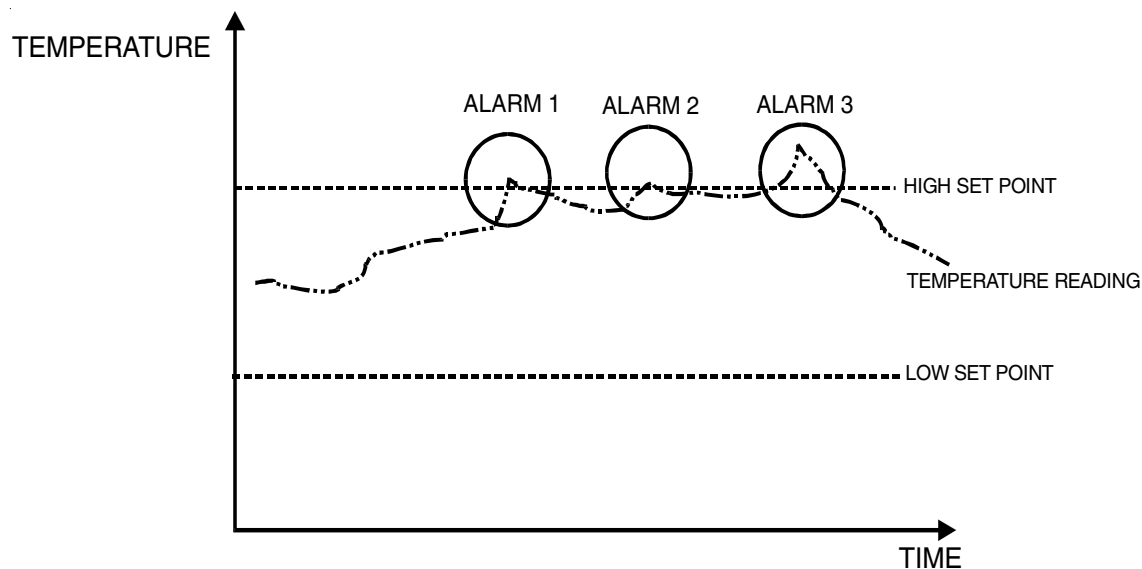
Figure 27: Temperature Input with Temperature Curve
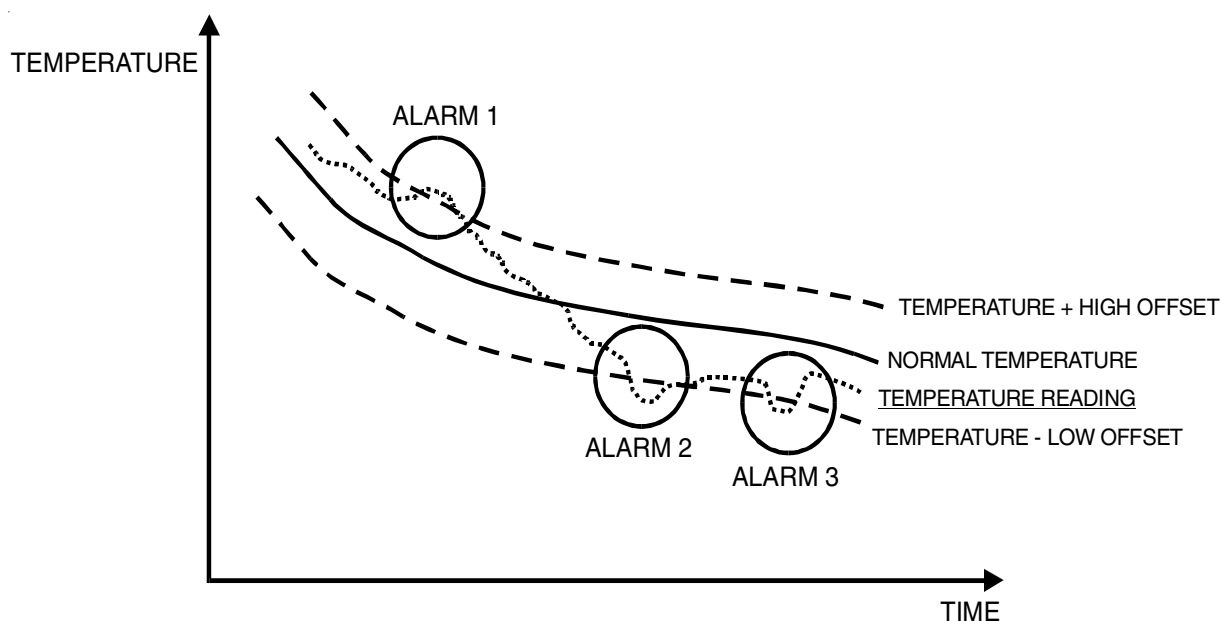
4.1.3.1 Calibration of the Temperature Probes

Definition: The system is delivered with an accuracy of ±0.1°C for the temperature probes as long as the installation instructions concerning wiring are observed. Temperature readings can be adjusted by ± 10°F (5.5°C) with an accuracy of one tenth of a degree to compensate for manufacturing variations.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  PROGRAM ZONES                  │
│  CALIBRATION          ⬆⬇        │
└─────────────────────────────────┘
```

3. Press Enter at the CALIBRATION option.

```
┌─────────────────────────────────┐
│  SELECT ZONE                    │
│  (1 .. 96): _ _                 │
└─────────────────────────────────┘
```

4. Enter the zone number and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  ZONE #02            ▲          │
│  BROILER #1          ▼          │
└─────────────────────────────────┘
```

5. Use the arrow keys ⬆⬇ to scroll the menu to the desired zone and press **Enter** [Enter ↵] .   If the zone selected is not a temperature zone, the message "TEMPERATURE ZONE ONLY" is displayed and the system prompts for another zone number. Otherwise the current temperature calibration value is displayed.

```
┌─────────────────────────────────┐
│  1.0°F                          │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TO MODIFY. . . . .   (↵)        │
│  TO QUIT. . . . . . .   (X)      │
└─────────────────────────────────┘
```

6. Press **Enter** [Enter ↵] to change the calibration value or **Cancel** [Cancel ✗] to quit this function.

```
┌─────────────────────────────┐
│                             │
│   ENTER OFFSET              │
│   _ _ _ _  °F               │
│                             │
└─────────────────────────────┘
```

7. Enter the offset value (within a tenth of a degree) and press **Enter** [Enter]. It ranges from -10.0 to 10.0°F (-5.6 to 5.6°C)The units are those defined by default for the system (see Section 3.11). The new offset value is displayed and the system returns to the PROGRAM ZONES menu.

4.1.3.2 Configuration of a Temperature Zone

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the **PROGRAM** ZONES option and press **Enter** [Enter].

```
┌─────────────────────────────┐
│                             │
│   PROGRAM ZONES             │
│   SETUP          ▼          │
│                             │
└─────────────────────────────┘
```

3. Press Enter at the SETUP option.

```
┌─────────────────────────────┐
│                             │
│   SELECT ZONE               │
│   (1 .. 96): _ _            │
│                             │
└─────────────────────────────┘
```

4. Type the number of the zone to configure and press **Enter** [Enter]. To stop the display, press **Cancel** [Cancel]. The current zone configuration is displayed. Default parameter values for zones are given in Section 3.11.

```
┌─────────────────────────────┐
│                             │
│   TO MODIFY. . . . .  (↵)   │
│   TO QUIT. . . . . . .  (X) │
│                             │
└─────────────────────────────┘
```

5. Press **Enter** to modify the zone or **Cancel** to exit this function. If the zone selected is the outdoor probe used for the outdoor temperature compensation feature and the compensation feature is currently enabled, the system displays the message: **DEACTIVATE OUTDOOR STATUS**. If you want to use the compensation feature, you will have to assign another probe as the outdoor probe (See Section 7.3).

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS RECONFIGURED.**

```
┌─────────────────────────────────┐
│  TYPE OF SENSOR                  │
│  TEMPERATURE          ▲▼         │
└─────────────────────────────────┘
```

6. The different types of sensors are presented in a scrolling menu. Use the up and down arrow keys ▲▼ to select TEMPERATURE and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│  CURVE MODE?                     │
│                                  │
└─────────────────────────────────┘
┌─────────────────────────────────┐
│  YES . . . . . . . . . .  (1)    │
│  NO . . . . . . . . . .   (2)    │
└─────────────────────────────────┘
```

7. Type **1** to program a temperature curve. The following section describes the procedure for configuring a temperature with temperature curve. If you type **2**, go to the section entitled "Without Temperature Curve".

With Temperature Curve

```
┌─────────────────────────────────┐
│  LO OFFSET                       │
│       _ _ _ _  ºF                │
└─────────────────────────────────┘
```

8. The low offset is the number of degrees below the normal temperature value (as defined by the curve) at which a temperature alarm is declared (see Fig. 25). It varies from 1 ºF to 20 ºF (0.6 ºC to 11.1 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the low offset and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│  HI OFFSET                       │
│       _ _ _ _  ºF                │
└─────────────────────────────────┘
```

9. The high offset is the number of degrees above the normal temperature value (as defined by the curve) at which a temperature alarm is declared (see Fig. 25). It varies from 1 ºF to 20 ºF (0.6 ºC to 11.1 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the high offset and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│  POINT #1            ▼           │
│  DAY 1   75.0 °F                 │
└─────────────────────────────────┘
```

10. Use the arrow keys ⬆⬇ to select the point to edit (1 to 10) and press **Enter.**

☞ Note that the first curve point is always at day 1.

```
┌─────────────────────────────────┐
│  POINT #2                        │
│  DAY: _ _ _                      │
└─────────────────────────────────┘
```

11. Enter the day number for the point selected and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  POINT #2                        │
│  TEMP: _ _ _ _ _  °F             │
└─────────────────────────────────┘
```

12. Enter the corresponding temperature value for that day and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  POINT #2                ⬍       │
│  DAY 10,75 . 0 °F                │
└─────────────────────────────────┘
```

13. Select another point to edit using the arrow keys. At least two points must be defined in order to use the curve. Note that the curve must be enabled in a separate sequence using the **Zone** key (see Section 7.5). To finish programming the curve, press **Cancel** [Cancel X] .

```
┌─────────────────────────────────┐
│  RECOGNITION TIME                │
│   _ _ :_ _ : _ _                 │
└─────────────────────────────────┘
```

14. To enter the recognition time, enter the hours; press **Enter.** Enter the minutes; press **Enter.** Enter the seconds; press **Enter**. It ranges from 0h;0m;0s to 59h;59m;59s. The system prompts for another zone number.

Without Temperature Curve

> **TEMPERATURE**
> **SET POINTS**

> **LO SET POINT**
> _ _ _ _ _ **ºF**

8. This is the lower value of the normal temperature range (see Fig. 26). It ranges from -40 ºF to 149 ºF (-40 ºC to 65 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the low set point and press **Enter**. To enter a negative value, use the ⊞+/- key, either before or after the digits.

> **HI SET POINT**
> _ _ _ _ _ **ºF**

9. This is the upper value of the normal temperature range (see Fig. 26). It ranges from the lower set point to 149 ºF (65 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the high set point and press **Enter**. To enter a negative value, use the ⊞+/- key, either before or after the digits. The high set point must be greater than the low set point.

> **CRITICAL TEMP.**
> _ _ _ _ _ **ºF**

10. This is the absolute temperature limit for room temperatures. It is used in conjunction with the outdoor temperature compensation feature. When the room temperature reaches this point and the outdoor temperature compensation feature is enabled, an alarm is set off, no matter what the outdoor temperature is (see Section 7.3). It ranges from the high set point to 149 ºF (65 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the critical temperature and press **Enter**. To enter a negative value, use the ⊞+/- key, either before or after the digits.

> **RECOGNITION TIME**
> _ _ : _ _ : _ _

11. To enter the recognition time, enter the hours; press **Enter.** Enter the minutes; press **Enter.** Enter the seconds; press **Enter**. It ranges from 0h;0m;0s to 59h;59m;59s. The system prompts for another zone number.

4.1.4 4-20mA Input

Definition: A 4-20mA input responds to changes in current readings from a sensor. A high and low set point is entered, defining a range of values between the set points that do not set off an alarm condition.

Figure 28: 4-20mA Input
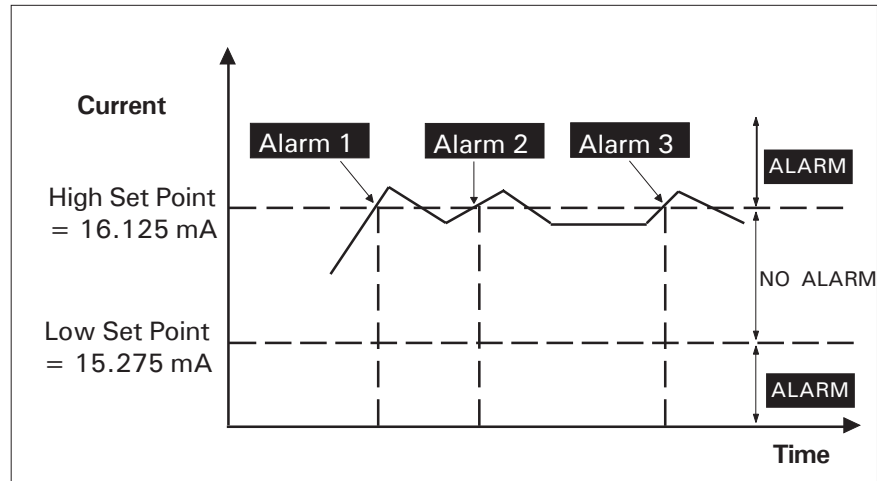
Figure 29: Typical Connection for 4-20mA Input

$$20mA >= I_{OUT} >= 4mA$$
$$4mA = 100\ PSI$$
$$20mA = 250\ PSI$$
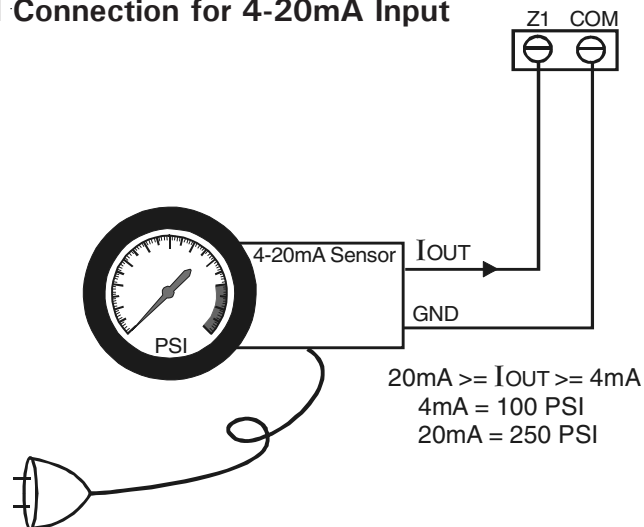
In the example above, a pressure gauge using a 4-20mA output is connected to the zone 1 input. The output from the sensor connects to the zone input. The pressure readings range from 100 to 250 psi. For a comfort zone ranging from 180 to 200 psi, the calculation of the set points is as follows:

The following linear equation describes the relation between psi and mA:

$$\mathbf{mA} = \left(\frac{(20-4)}{(250-100)} \times \mathbf{psi} \right) + \left(4 - \frac{(20-4) \times 100}{(250-100)} \right)$$

Now we can calculate the set points:

$$\text{low set point} = \left(\frac{(20-4)}{(250-100)} \times 180 \right) + \left(4 - \frac{(20-4) \times 100}{(250-100)} \right) = 12.533\text{mA}$$

$$\text{high set point} = \left(\frac{(20-4)}{(250-100)} \times 200 \right) + \left(4 - \frac{(20-4) \times 100}{(250-100)} \right) = 14.667\text{mA}$$

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter].

> **PROGRAM ZONES**
> **SETUP** ▼

3. Press Enter at the SETUP option.

> **SELECT ZONE**
> **(1 .. 96):** _ _

4. Type the number of the zone to configure and press **Enter** [Enter]. The current zone definition is displayed. Default zone configurations are described in section 3.11. To stop the display, press **Cancel** [Cancel].

```
TO MODIFY. . . . .    (↵)
TO QUIT. . . . . . .     (X)
```

5. Press **Enter** to modify the zone or **Cancel** to exit this function. If the zone selected is the outdoor probe used for the outdoor temperature compensation feature and the compensation feature is currently enabled, the system displays the message: **DEAC-TIVATE OUTDOOR STATUS**. If you want to use the compensation feature, you will have to assign another probe as the outdoor probe (See Section 7.3).

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS RECONFIGURED.**

```
TYPE OF SENSOR
4-20mA                ⬍
```

6. The different types of sensors are presented in a scrolling menu. Use the up and down arrow keys ⬆⬇ to select 4-20MA and press **Enter**.

```
LO SET POINT
_ _ _ _ _ _ mA
```

7. This is the lower value of the normal current range. It ranges from 4 to 20 mA with an accuracy of 0.001mA. Enter the low set point and press **Enter**.

```
HI SET POINT
_ _ _ _ _ _mA
```

8. This is the upper value of the normal current range. It ranges from the lower set point to 20mA with an accuracy of 0.001mA. The value must be greater than the low set point. Enter the high set point and press **Enter**.

```
RECOGNITION TIME
_ _ :_ _ :_ _
```

9. To enter the recognition time, enter the hours; press **Enter.** Enter the minutes; press **Enter.** Enter the seconds; press **Enter**. It ranges from 0h;0m;0s to 59h;59m;59s. The system returns to the zone number prompt.

4.1.5 AC Current Sensor Input

Definition: An AC current sensor input uses a current sensor to record changes in AC current readings. The AC current sensor operate using 0-5V zone inputs of the Agri-Alert controller (JP4 jumper position). The user must enter the number of wire windings through the current sensor (see Fig. 31). Use as many windings as the load will allow for greater accuracy. Refer to the winding table beside.

A high and low set point are entered, defining a range of values that do not set off an alarm condition. The range of values for defining set points is based on the number of windings. When the low set point is set to zero, the system detects only current values that exceed the high set point. This way, an alarm is not set off each time the motor is turned off.

# WINDINGS#	MAX. LOAD
1	16.0 A
2	8.0 A
3	6.0 A
4	4.0 A
5	3.5 A
6	3.0 A
7	2.5 A
8	2.0 A
9	1.5 A

Figure 30: AC Current Sensor Input

Figure 31: Current Sensors' Windings

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM ZONES                 │
│   SETUP              ▼          │
│                                 │
└─────────────────────────────────┘
```

3. Press Enter at the SETUP option.

```
┌─────────────────────────────────┐
│                                 │
│   SELECT ZONE                   │
│   (1 .. 96): _ _                │
│                                 │
└─────────────────────────────────┘
```

4. Type the number of the zone to configure and press **Enter** [Enter ↵] . The current zone configuration is displayed. Default parameter values for zones are given in Section 3.11. To stop the display, press **Cancel** [Cancel ✕] .

```
┌─────────────────────────────────┐
│                                 │
│   TO MODIFY. . . . .   (↵)      │
│   TO QUIT. . . . . . .   (X)     │
│                                 │
└─────────────────────────────────┘
```

5. Press **Enter** to modify the zone or **Cancel** to exit this function. If the zone selected is the outdoor probe used for the outdoor temperature compensation feature and the compensation feature is currently enabled, the system displays the message: **DEACTIVATE OUTDOOR STATUS**. If you want to use the compensation feature, you will have to assign another probe as the outdoor probe (See Section 7.3).

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS RECONFIGURED.**

```
┌─────────────────────────────────┐
│                                 │
│   TYPE OF SENSOR                │
│   AC CURRENT         ⬍          │
│                                 │
└─────────────────────────────────┘
```

6. The different types of sensors are presented in a scrolling menu. Use the up and down arrow keys ⬆⬇ to select AC CURRENT and press **Enter**.

```
# WINDINGS
(1..9): _
```

7. Enter the number of windings around the current sensor and press **Enter**. Only 1 winding is required in the case of the Sentry 100-1 sensor.

```
LO SET POINT
_ _ _ _   A
```

8. This is the lower value of the normal current range. It ranges from 0 to the value given in the chart above with an accuracy of 0.1 amps. A value of zero means low currents are not detected. Enter the low set point and press **Enter**.

```
HI SET POINT
_ _ _ _   A
```

9. This is the upper value of the normal voltage range. It ranges from the low set point to the value given in the chart above with an accuracy of 0.1 amps. The value must be greater than the low set point. Enter the high set point and press **Enter**.

```
RECOGNITION TIME
_ _ : _ _ : _ _
```

10. To enter the recognition time, enter the hours; press **Enter**. Enter the minutes; press **Enter**. Enter the seconds; press **Enter**. It ranges from 0h;0m;0s to 59h;59m;59s. The system returns to the zone number prompt

4.1.6   0-5V Input

Definition: A 0-5V input responds to changes in voltage readings from a sensor. A high and low set point is entered, defining a range of values between the set points that do not set off an alarm condition.

Figure 32: 0-5V Input

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter].

> **PROGRAM ZONES**
> **SETUP**   ▼

3. Press Enter at the SETUP option.

> **SELECT ZONE**
> **(1 .. 96):** _ _

4. Type the number of the zone to configure and press **Enter** [Enter]. The current zone configuration is displayed. Default parameter values for zones are given in Section 3.11. To stop the display, press **Cancel** [Cancel].

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

5. Press **Enter** to modify the zone or **Cancel** to exit this function. If the zone selected is the outdoor probe used for the outdoor temperature compensation feature and the compensation feature is currently enabled, the system displays the message: **DEACTI-VATE OUTDOOR STATUS**. If you want to use the compensation feature, you will have to assign another probe as the outdoor probe (See Section 7.3).

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS RECONFIGURED.**

```
TYPE OF SENSOR
0-5V                    ▲
```

6. The different types of sensors are presented in a scrolling menu. Use the up and

down arrow keys ⬆⬇ to select 0-5V and press **Enter**.

```
LO SET POINT
    _ _ _ _ _   V
```

7. This is the lower value of the normal voltage range. It ranges from 0 to 5 Volts with an accuracy of 0.001 Volts. Enter the low set point and press **Enter**.

```
HI SET POINT
    _ _ _ _ _   V
```

8. This is the upper value of the normal voltage range. It ranges from the lower set point to 5 Volts with an accuracy of 0.001 Volts. The value must be greater than the low set point. Enter the high set point and press **Enter**.

```
RECOGNITION TIME
    _ _ : _ _ : _ _
```

9. To enter the recognition time, enter the hours; press **Enter.** Enter the minutes. It ranges from 0h;0m;0s to 59h;59m;59s. The system returns to the zone number prompt.

4.1.7 *Disable the Siren*

Definition: This function allows to disable the siren on specified zones. No siren will be activated when an alarm occurs in these zones. By default, the siren is enabled on all zones.
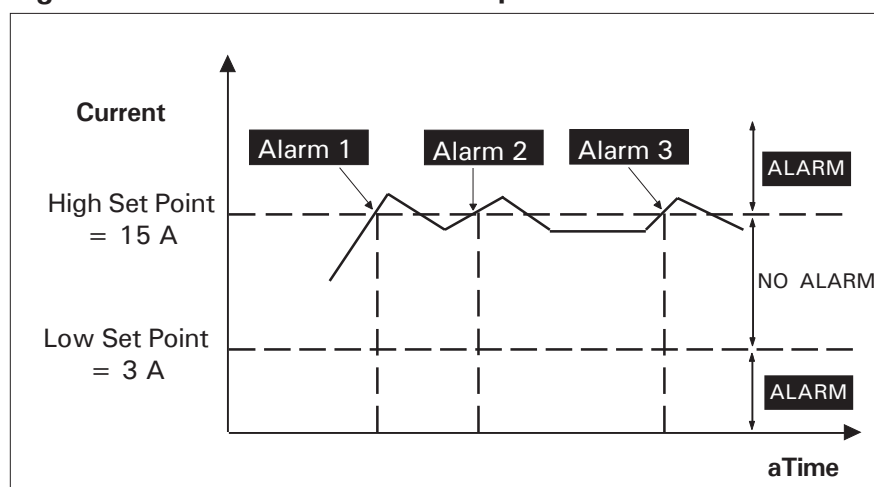
1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter ↲] .

```
PROGRAM AUX'S
SIREN DISABLED    ⬍
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is SIREN DISABLED and press **Enter** [Enter ↲] . Zones without siren are displayed.

```
NO SIREN ZONE #
4
```

To add a zone:

```
SIREN DISABLED
ADD ZONE           ⬇
```

4. Press **Enter** [Enter ↲] to ADD a zone on which the siren will be disabled or press the down-arrow key to reactivate the dialer on a zone.

```
SELECT ZONE
(1 .. 96): _
```

5. Enter the desired zone number then press **Enter** [Enter ↲]. The system displays zones without sirens and returns to the PROGRAM AUX'S menu.

To remove a zone:

```
SIREN DISABLED
ADD ZONE           ⬇
```

4. Select DEL to reactivate the siren on a zone then follow the prompts on screen.

4.2 COPYING A ZONE CONFIGURATION TO ANOTHER ZONE

Definition: The user can copy a complete zone configuration from an existing zone to another similar zone (or to several zones). This avoids repeating the same sequence several times.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM ZONES option and press **Enter** | Enter ↵ | .

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM ZONES                 │
│   COPY/PASTE          ▲▼        │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the COPY/PASTE option and press **Enter** | Enter ↵ | .

```
┌─────────────────────────────────┐
│                                 │
│   COPY FROM                     │
│   ZONE (1 .. 96): _ _           │
│                                 │
└─────────────────────────────────┘
```

4. Enter the number of the existing zone to use as a model for the new configuration and press **Enter**. The outdoor probe zone and incomplete data zones cannot be selected.

```
┌─────────────────────────────────┐
│                                 │
│   PASTE TO                      │
│   ZONE(S) _ _ _ _ _             │
│                                 │
└─────────────────────────────────┘
```

5. Enter the number of the zone or zones to be configured and press **Enter**. To configure more than one zone at once, you can enter a range: **10-20**, for example, using the | +/- | key to enter the dash.

```
┌─────────────────────────────────┐
│                                 │
│   ADD ZONE. . . . . . . . . (1) │
│   TO CONTINUE . . . .. . . . (2)│
│                                 │
└─────────────────────────────────┘
```

6. Type **1** to configure another zone using the same model; type **2** to complete the configuration. Press **Cancel** to quit this function.

4.3 DISPLAY ZONE INFORMATION

Definition: This function is used to display the device and input number of a zone.

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S option and press **Enter** [Enter].

```
┌─────────────────────────────────┐
│  PROGRAM AUX'S                  │
│  INFORMATION          ▲         │
│                       ▼         │
└─────────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the INFORMATION option and press **Enter** [Enter].

```
┌─────────────────────────────────┐
│  INFORMATION                    │
│  ZONE               ▼           │
│                                 │
└─────────────────────────────────┘
```

4. Press Enter at the ZONE option.

```
┌─────────────────────────────────┐
│  SELECT ZONE                    │
│  (1..96): _ _                   │
│                                 │
└─────────────────────────────────┘
```

5. Enter the number of the zone and press **Enter**.

```
┌─────────────────────────────────┐
│  ZONE#3               ▲         │
│  BARN#4               ▼         │
│                                 │
└─────────────────────────────────┘
```

6. The zone number and label are displayed. If the zone selected is not the right one, use the arrow keys ▲▼ to scroll the menu until the correct zone is selected and press **Enter** [Enter].

```
┌─────────────────────────────────┐
│  ZONE#3  KP#01                  │
│  INPUT#1                        │
│                                 │
└─────────────────────────────────┘
```

7. The zones assigned to the device are displayed. The system returns to the zone number prompt (step 5).

4.4 EDIT ZONE LABEL

Definition: The Agri-Alert system labels the zones from 1 to 96 as explained in the previous section. However, the user will find it easier to use a descriptive text to identify the zones. This function allows the user to identify each zone with a 32 character label. By default, the zone label is "ZONE#XX" where XX is the zone number. We recommend not erasing the default value and simply adding your description onto to end of the default.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ↵] .

```
PROGRAM ZONES
EDIT LABEL          ↕
```

3. Use the arrow keys ▲▼ to scroll the menu to the EDIT LABEL option and press **Enter.**

```
SELECT ZONE
(1 .. 96): _ _
```

4. Type the zone number to label and press **Enter**.

```
ZONE #02            ▲
BROILER #1          ▼
```

5. Use the arrow keys ▲▼ to scroll the menu to the desired zone and press **Enter**.

```
ZONE #45

_
```

6. Use the numeric keys to type the device label. For example, the number 2 key is used to type the letters **A**, **B** and **C**: type **2** for **A**, **22** for **B**, **222** for **C**, **2222** for **a**, **22222** for **b** and **222222** for **c**. Use the number **1** key for special characters. Use the arrow keys ▲▼◀▶ to move around the display. Press **Enter** [Enter ↵] to end the edit session.

```
TO CONTINUE. . .   (1)
TO END. . . . . . .   (2)
```

7. Type **1** to label another zone or **2** to return to the PROGRAM ZONES menu.

4.5 ZONE ID MESSAGE

Definition: An audio recording can be used to identify each zone. This way, zones can be easily identified when calling the system on the phone, for example. The user can record up to 7 minutes and 30 seconds of ID messages for the system and zones (see Section 3.10). In addition, the maximum time allowed for each individual message is 30 seconds.

Setting:

1. Press the **ID Message** key [3DEF ID message] .

```
ID MESSAGE
ZONE                ▼
```

2. Press **Enter** [Valider ↵] at the ZONE option.

```
SELECT ZONE
(1 .. 96): _ _
```

3. Enter the zone number to identify and press Enter [Enter ↵] . The current ID message

for the zone is played over the system speaker.

```
ID MESSAGE
ZONE #ZZ
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

4. To modify the current ID message, press **Enter** [Enter ↵] . Otherwise, press **Cancel** [Cancel ✗] .

```
STATUS. . . . . . . .   (1)
MESSAGE . . . . . .   (2)
```

To Modify ID Message:

5. Type **2** to modify ID Message.

```
VOICE MEMORY
TOTAL: 7MIN, 30 SEC
```

```
FOR RECORDING
PRESS 3 AND HOLD
```

6. Press the ID message key [3 DEF / ID message] and hold while you speak the message into the

microphone on the front panel.

```
VOICE MEMORY
ZONE #XX: 30 SEC
```

7. The screen will count down from the maximum time remaining for one id message until the ID message key is released.

```
ID MESSAGE
PLAY
```

8. The new message is played over the speaker and the system returns to the Date/ Time display.

To Enable / Disable ID Message:

```
STATUS. . . . . . . .  (1)
MESSAGE .  . . . . .  (2)
```

5. Type **1** to enable or disable ID Message.

```
ENABLE. . . . . . . .  (1)
DISABLE . . . . . . .  (2)
```

6. Type **1** to enable, or **2** to disable the ID Message. The new status is displayed and the system returns to the Date/Time display.

4.6 RESET TIME

Definition: After an alarm has occurred, no new alarm can be detected on the same input until the reset time has elapsed. The zone LED on the front panel continues to flash until the reset time has elapsed and the alarm condition has returned to normal. This parameter is used to configure all alarm inputs except pulse count inputs. All zones use the same reset time. Using a reset time avoids reporting a succession of closely related alarms as separate alarms. For example, in the case of a temperature sensor, small temperature fluctuations around one of the set points can set off a great number of separate alarms. This can be avoided if the reset time is set to an appropriate value. Figure 33 illustrates this situation. An alarm occurs at "A" when the temperature exceeds the high set point (assuming a recognition time equal to zero). This is Alarm 1.

Figure 33: Illustration of Reset Time
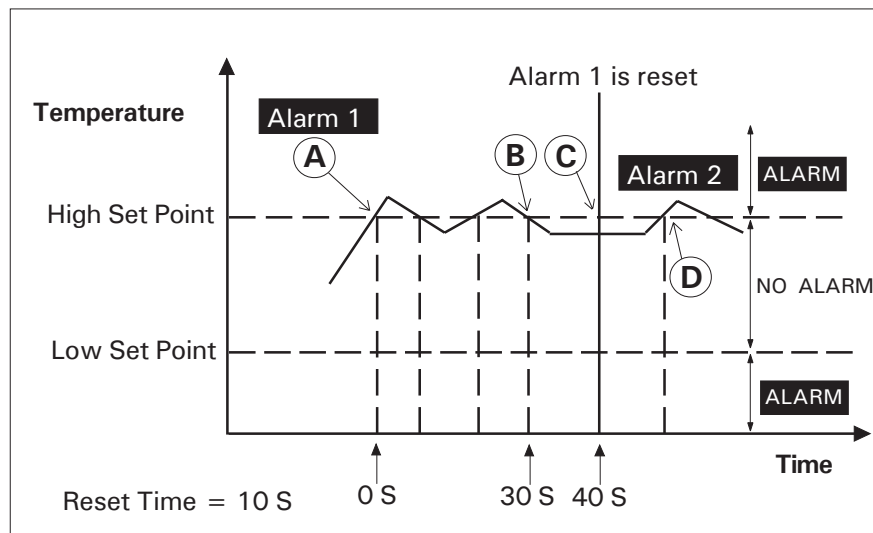
No new alarms can be declared until Alarm 1 is reset. In order for this to happen, the temperature must fall back to a normal state for at least 10 seconds (the reset time). This occurs at "C". At "D", a new alarm can be declared (assuming a zero recognition time once again). The reset time ranges from 0 to 59 hours, 0 to 59 minutes, 0 to 59 seconds. The default is 1 second (see also the section on **Recognition Time** at the beginning of this chapter).

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆️⬇️ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│                                 │
│   PROGRAM ZONES        ▲        │
│   RESET TIME           ▼        │
│                                 │
└─────────────────────────────────┘
```

3. Use the arrow keys ⬆️⬇️ to scroll the menu to the RESET TIME option and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│                                 │
│   RESET TIME                    │
│   XX:YY:ZZ                      │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│                                 │
│   TO MODIFY. . . . .   (↵)      │
│   TO QUIT. . . . . . .   (X)    │
│                                 │
└─────────────────────────────────┘
```

4. Press **Enter** to modify the reset time. It ranges from 0h;0m;0s to 59h;59m;59s.

```
┌─────────────────────────────────┐
│                                 │
│   RESET TIME                    │
│     _ _ :_ _ : _ _              │
│                                 │
└─────────────────────────────────┘
```

5. Enter the hours; press **Enter.** Enter the minutes; press **Enter.** Enter the seconds; press **Enter.** The system displays the new reset time and returns to the PROGRAM ZONES menu.

4.7 MIN/MAX TIME

Definition:

This is the time at which the zones' minimum and maximum temperature values are daily reset.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⏶⏷ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│   PROGRAM ZONES                 │
│   MIN/MAX TIME        ▲         │
│                       ▼         │
└─────────────────────────────────┘
```

3. Use the arrow keys ⏶⏷ to scroll the menu to the MIN/MAX TIME option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│   MIN/MAX TIME                  │
│   12:00AM                       │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   TO MODIFY. . . . .   (↵)      │
│   TO QUIT. . . . . . .   (X)    │
│                                 │
└─────────────────────────────────┘
```

4. Press **Enter** to modify the time at which the min/max temperature values are reset.

```
┌─────────────────────────────────┐
│   ENTER NEW TIME                │
│    _ _ : _ _ (HR:MIN)           │
│                                 │
└─────────────────────────────────┘
```

5. Enter the hours; press **Enter.** Enter the minutes; press **Enter.**

```
┌─────────────────────────────────┐
│   AM. . . . . . . . . . . (1)   │
│   PM. . . . . . . . . . . .(2)  │
│                                 │
└─────────────────────────────────┘
```

6. Press 1 to select AM or 2 to select PM. The system displays the new Min/Max time and returns to the PROGRAM ZONES menu.

4.8 DELETING THE ZONES

Definition:

The system allows to individually remove zones 9-96. It is also possible to remove all the zones from a specified external device or to remove all zones 9-96 at once.

4.8.1 Deleting Individual Zones

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM ZONES option and press **Enter** [Enter↵] .

```
┌─────────────────────────────┐
│  PROGRAM ZONES              │
│  REMOVE            ▲        │
│                    ▼        │
└─────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the REMOVE option and press **Enter**.

```
┌─────────────────────────────┐
│  REMOVE                     │
│  ZONE              ▼        │
└─────────────────────────────┘
```

4. Use the arrow keys ▲▼ to scroll the menu to the ZONES option and press **Enter**.

```
┌─────────────────────────────┐
│  SELECT ZONE                │
│  (9..96): _ _               │
└─────────────────────────────┘
```

5. Enter the number of the zone to be removed and press **Enter**.

```
┌─────────────────────────────┐
│  TO CONTINUE . . . . (1)    │
│  TO END  . . . . . . . .(2) │
└─────────────────────────────┘
```

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS REMOVED.**

6. Type 1 to make more changes. Type 2 to exit this function; the system returns to the PROGRAM ZONES menu.

4.8.2 Deleting Devices' Zones

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM ZONES option

and press **Enter** [Enter ↵].

```
┌─────────────────────────────┐
│  PROGRAM ZONES              │
│  REMOVE              ▲       │
│                     ▼       │
└─────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the REMOVE option and press **Enter**.

```
┌─────────────────────────────┐
│  REMOVE                     │
│  DEVICE'S ZONES    ▲        │
│                    ▼        │
└─────────────────────────────┘
```

4. Use the arrow keys ▲▼ to scroll the menu to the DEVICE'S ZONES option and

press **Enter**.

```
┌─────────────────────────────┐
│  SELECT DEVICE              │
│  (1..99): _ _               │
│                             │
└─────────────────────────────┘
```

5. Enter the number of the device containing the zones to be deleted and press **Enter**.

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS REMOVED.**

```
┌─────────────────────────────┐
│  TO CONTINUE . . . . (1)    │
│  TO END  . . . . . . . .(2) │
│                             │
└─────────────────────────────┘
```

6. Type 1 to make more changes. Type 2 to exit this function; the system returns to

the PROGRAM ZONES menu.

4.8.3 Deleting All Zones

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM ZONES option and press **Enter** ⏎ .

```
┌─────────────────────────────────┐
│  PROGRAM ZONES                  │
│  REMOVE              ▲          │
│                      ▼          │
└─────────────────────────────────┘
```

3. Use the arrow keys ▲▼ to scroll the menu to the REMOVE option and press **Enter**.

```
┌─────────────────────────────────┐
│  REMOVE                         │
│  ALL                 ▲          │
│                                 │
└─────────────────────────────────┘
```

4. Use the arrow keys ▲▼ to scroll the menu to the ALL option and press **Enter**.

☞ **THE ALARM MEMORY IS ERASED EACH TIME A ZONE IS REMOVED.**

```
┌─────────────────────────────────┐
│  YES. . . . . . . . . . . (1)   │
│   NO. . . . . . . . . . . (2)   │
└─────────────────────────────────┘
```

5. Type 1 to delete all the controller's zones (9-96) or type 2 to exit this function; the system returns to the PROGRAM ZONES menu.

CHAPTER FIVE: COMMUNICATION PARAMETERS

5.1 CENTRAL ALARM REPORTING CODES

Definition: The AA9600 system uses the CONTACT ID protocol for reporting alarm events and status changes to a central alarm facility. The general format of the information sent is as follows:

SSSS XXx YYY GG UUU CC

SSSS- account number

XX - 18 (CONTACT ID)

x - 1 (bypass/disarm); 3 (activate/arm)

YYY - event code

GG - partition number

UUU - password index

CC - checksum

The user must enter the account number which identifies the system to the facility. The user can also change the event codes (YYY) for the various events if they are different from the default values. Event codes include the following items:

- alarm codes used to define an alarm type for each zone and for each type of system alarm

- restore codes used to indicate that the zone or system has returned to its normal state.

- codes used to report zone and partition status changes made by the user

When an alarm occurs, or when the alarm situation is corrected, the appropriate code is sent to the central alarm facility. If an outstanding alarm is acknowledged before the central alarm facility is called, the report or utility code is modified as follows:

- the first digit is changed to '7'

- the second and third digits remain unchanged

See Appendix D for a table of CONTACT ID event codes.

5.1.1   Setting the Account Number

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** [Enter ↵] .

```
PROGRAM AUX'S
REPORT                ▲
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is REPORT and press **Enter** [Enter ↵] .

```
REPORT
ACCOUNT NUMBER   ▼
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is ACCOUNT NUMBER and press **Enter** [Enter ↵] . The current account number is displayed.

```
ACCOUNT NUMBER
2 3 7 4
```

```
TO MODIFY. . . . .  (↵)
TO QUIT. . . . . . .  (X)
```

5. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

```
ENTER
ACCOUNT NUMBER  _ _ _ _
```

6. Enter the four digit account number. To enter a hexadecimal digit (i.e. A-B-C-D-E-F), press the [* Outdoor] key to enter hexadecimal mode. Then press 2 repeatedly to enter A, B, C or 2 and press 3 repeatedly to enter D, E, F or 3. To enter the digit in hexadecimal mode, you must press the right-arrow key ▶ (even for the last digit). Otherwise the cursor stays at the same position. To return to the normal keypad, press [* Outdoor] . When you are finished typing the four digits, press **Enter** [Enter ↵] . The new account number is displayed, and the system returns to the REPORT menu.

5.1.2   Setting Alarm Codes for Zones

Definition: Alarm codes are used to report alarms to the central alarm facility. This section describes the procedure for defining alarm codes when a zone is in an alarm state.

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** 🔲 .

```
┌────────────────────────────────┐
│  PROGRAM AUX'S                 │
│  REPORT                  ▲     │
└────────────────────────────────┘
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is REPORT and press **Enter** 🔲 .

```
┌────────────────────────────────┐
│  REPORT                        │
│  ALARM                   ⬍     │
└────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is ALARM and press **Enter** 🔲 .

```
┌────────────────────────────────┐
│  ZONE . . . . . . . . . (1)    │
│  SYSTEM. . . . . . . . (2)     │
└────────────────────────────────┘
```

5. Type 1 to define alarm codes for zones.

```
┌────────────────────────────────┐
│  SELECT ZONE                   │
│  (1 . . 96): _  _              │
└────────────────────────────────┘
```

6. Enter the zone number and press **Enter** 🔲 . Note that the zone selected must be a valid zone previously configured by the user. Note also that you cannot assign an alarm code to the zone configured for the outdoor temperature probe. The current alarm code for the zone is displayed.

```
┌────────────────────────────────┐
│  ZONE #22 ALARM                │
│  CODE: 232                     │
└────────────────────────────────┘
```

```
┌────────────────────────────────────┐
│  TO MODIFY. . . . .   (↵)           │
│  TO QUIT. . . . . . .   (X)          │
└────────────────────────────────────┘
```

7. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✗] to quit.

```
┌────────────────────────────────────┐
│  ENTER                              │
│  CODE :   _  _  _                    │
└────────────────────────────────────┘
```

8. Enter the three digit alarm code. To enter a hexadecimal digit (i.e. A-B-C-D-E-F), press the [* Outdoor] key to enter hexadecimal mode. Then press 2 repeatedly to enter A, B, C or 2 and press 3 repeatedly to enter D, E, F or 3. To enter the digit in hexadecimal mode, you must press the right-arrow key ▶ (even for the last digit). Otherwise the cursor stays at the same position. To return to the normal keypad, press [* Outdoor]. When you are finished typing the three digits, press Enter [Enter ↵]. The new alarm code is displayed, and the system returns to the REPORT menu.

5.1.3   Setting Alarm Codes for System Alarms

Definition: Alarm codes are used to report alarms to the central alarm facility. This section describes the procedure for defining alarm codes for system alarms. The following table gives a description of system alarms.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is PROGRAM AUX'S and press Enter [Enter ↵].

LOW SYSTEM BATTERY
POWER FAILURE
HI SYSTEM TEMPERATURE
LO SYSTEM TEMPERATURE
PHONE LINE CUT
12VDC OUTPUT FAILURE
SIREN TROUBLE
LO SBI VOLTAGE
AUTO STANDBY
SYSTEM TROUBLE
MANUAL TRIGGER TEST
PERIODIC TEST REPORT

```
┌────────────────────────────────────┐
│  PROGRAM AUX'S                      │
│  REPORT                    ▲        │
└────────────────────────────────────┘
```

3. Using the up and down-arrow keys ⬆️⬇️ , scroll the menu until the item displayed is REPORT and press Enter [Enter ↵] .

```
┌─────────────────────────────────────────┐
│                                         │
│    REPORT                               │
│    ALARM                      ↕         │
│                                         │
└─────────────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆️⬇️ , scroll the menu until the item displayed is ALARM and press Enter [Enter ↵] .

```
┌─────────────────────────────────────────┐
│                                         │
│    ZONE . . . . . . . . .    (1)        │
│    SYSTEM. . . . . . . .     (2)         │
│                                         │
└─────────────────────────────────────────┘
```

5. Type 2 to define system codes.

```
┌─────────────────────────────────────────┐
│                                         │
│    SYSTEM ALARM                         │
│    LO BATTERY              ▼            │
│                                         │
└─────────────────────────────────────────┘
```

6. Using the up and down-arrow keys ⬆️⬇️ , scroll the menu to select the type of system alarm required and press Enter. The current utility code for this alarm type is displayed.

```
┌─────────────────────────────────────────┐
│                                         │
│    LO BATTERY                           │
│    CODE: 302                            │
│                                         │
└─────────────────────────────────────────┘
```

```
┌─────────────────────────────────────────┐
│                                         │
│    TO MODIFY. . . . .   (↵)             │
│    TO QUIT. . . . . . .   (X)           │
│                                         │
└─────────────────────────────────────────┘
```

7. Press Enter [Enter ↵] to modify the value or Cancel [Cancel ✗] to quit.

```
┌─────────────────────────────────────────┐
│                                         │
│    ENTER                                │
│    CODE:  _ _ _                         │
│                                         │
└─────────────────────────────────────────┘
```

8. Enter the three digit code. To enter a hexadecimal digit (i.e. A-B-C-D-E-F), press the [* Outdoor] key to enter hexadecimal mode. Then press 2 repeatedly to enter A, B, C or

2 and press 3 repeatedly to enter D, E, F or 3. To enter the digit in hexadecimal mode, you must press the right-arrow key ▶ (even for the last digit). Otherwise the cursor stays at the same position. To return to the normal keypad, press $\boxed{\substack{* \\ \text{Outdoor}}}$. When you are finished typing the three digits, press **Enter** $\boxed{\substack{\text{Enter} \\ \text{⏎}}}$. The new code is displayed, and the system returns to the REPORT menu.

5.1.4 Setting Restore Codes for Zones

Definition: Restore codes for zones are used to report to the central alarm facility that a zone previously in an alarm state has been restored to its normal state.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** $\boxed{\substack{\text{Enter} \\ \text{⏎}}}$.

```
PROGRAM AUX'S
REPORT                  ▲
```

3. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is REPORT and press **Enter** $\boxed{\substack{\text{Enter} \\ \text{⏎}}}$.

```
REPORT
RESTORE                 ⬍
```

4. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is RESTORE and press **Enter** $\boxed{\substack{\text{Enter} \\ \text{⏎}}}$.

```
ZONE . . . . . . . . . (1)
SYSTEM. . . . . . . (2)
```

5. Type 1 to define restore codes for zones.

```
┌─────────────────────────────────┐
│  SELECT ZONE                    │
│  (1 . . 96): _  _               │
│                                 │
└─────────────────────────────────┘
```

6. Enter the zone number and press Enter [Enter ↵]. Note that the zone selected must be a valid zone previously configured by the user. Note also that you cannot assign a restore code to the zone configured for the outdoor temperature probe. The current restore code for the zone is displayed.

```
┌─────────────────────────────────┐
│  ZONE #22 RESTORE               │
│  CODE: 232                      │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TO MODIFY. . . . .   (↵)        │
│  TO QUIT. . . . . . .   (X)      │
│                                 │
└─────────────────────────────────┘
```

7. Press Enter [Enter ↵] to modify the value or Cancel [Cancel ✗] to quit.

```
┌─────────────────────────────────┐
│  ENTER                          │
│  CODE:  _  _  _                 │
│                                 │
└─────────────────────────────────┘
```

8. Enter the three digit restore code. To enter a hexadecimal digit (i.e. A-B-C-D-E-F), press the [* Outdoor] key to enter hexadecimal mode. Then press 2 repeatedly to enter A, B, C or 2 and press 3 repeatedly to enter D, E, F or 3. To enter the digit in hexadecimal mode, you must press the right-arrow key ▶ (even for the last digit). Otherwise the cursor stays at the same position. To return to the normal keypad, press [* Outdoor]. When you are finished typing the three digits, press **Enter** [Enter ↵]. The new restore code is displayed, and the system returns to the REPORT menu.

5.1.5   Setting Restore Codes for System Alarms

Definition: Restore codes are used when a system utility has been restored to its normal state following an alarm.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** ⏎ .

```
PROGRAM AUX'S
REPORT              ▲
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is REPORT and press **Enter** ⏎ .

```
REPORT
RESTORE             ⬍
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is RESTORE and press **Enter** ⏎ .

```
ZONE . . . . . . . . . (1)
SYSTEM. . . . . . . (2)
```

5. Type 2 to define system restore codes.

```
SYSTEM RESTORE
LO BATTERY          ▼
```

6. Using the up and down-arrow keys ⬆⬇ , scroll the menu to select the type of system alarm required and press **Enter** ⏎ . The current restore code for this alarm type is displayed.

```
LO BATTERY
CODE: 302
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

7. Press Enter | Enter ↵ | to modify the value or Cancel | Cancel ✗ | to quit.

```
ENTER
CODE: _ _ _
```

8. Enter the three digit restore code. To enter a hexadecimal digit (i.e. A-B-C-D-E-F), press the | * Outdoor | key to enter hexadecimal mode. Then press 2 repeatedly to enter A, B, C or 2 and press 3 repeatedly to enter D, E, F or 3. To enter the digit in hexadecimal mode, you must press the right-arrow key ▶ (even for the last digit). Otherwise the cursor stays at the same position. To return to the normal keypad, press | * Outdoor | . When you are finished typing the three digits, press **Enter** | Enter ↵ | .   The new restore code is displayed, and the system returns to the REPORT menu.

5.1.6 *Reporting Temperature Readings to Central Alarm Facility*

Definition: In the case of temperature alarms, the user can send the actual temperature reading to the central alarm facility rather than the report code. The temperature value is coded into the report code as follows:

(a)   if the alarm has not yet been acknowledged:

-       the first digit of the report code is 'B' for a positive value or 'C' for a negative value of temperature;

-       the second and third digits of the report code correspond to the temperature reading in Celsius degrees.

b)   if the alarm has been acknowledged:

-       the first digit of the report code is 'D' for a positive value or 'E' for a negative temperature value;

-       the second and third digits of the report code correspond to the temperature reading in Celsius degrees.

For example, D22 corresponds to an acknowledged temperature alarm of + 22ºC. When this feature is disabled, the system sends the normal report code for the temperature alarm. By default, this feature is enabled.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** [Enter].

```
┌─────────────────────────────────┐
│  PROGRAM AUX'S                  │
│  REPORT                  ▲      │
└─────────────────────────────────┘
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is REPORT and press **Enter** [Enter].

```
┌─────────────────────────────────┐
│  REPORT                         │
│  TEMPERATURE             ↕      │
└─────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is TEMPERATURE and press **Enter** [Enter].

```
┌─────────────────────────────────┐
│  STATUS: ENABLE                 │
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TO MODIFY. . . . .    (↵)       │
│  TO QUIT. . . . . . .   (X)      │
└─────────────────────────────────┘
```

5. Press Enter [Enter] to modify the status or Cancel [Cancel] to quit.

```
┌─────────────────────────────────┐
│  ENABLE.. . . . . . . .   (1)     │
│  DISABLE . . . . . . .   (2)      │
└─────────────────────────────────┘
```

6. Type 1 to enable reporting of temperature values, or 2 to disable this feature. The new status is displayed and the system returns to the REPORT menu.

5.1.7 Reporting Zone and Partition Status Changes

Definition: Codes are defined to report when burglar zones or partitions are armed or disarmed and when individual zones are activated or bypassed by the user. A code is also defined for bypassing/unbypassing at-home arming zones.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  PROGRAM AUX'S                  │
│  REPORT                    ▲    │
└─────────────────────────────────┘
```

3. Using the up and down-arrow keys, scroll the menu until the item displayed is REPORT and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  REPORT                ▲        │
│  STATUS CHANGE         ▼        │
└─────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is STATUS CHANGE and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  STATUS CHANGE                  │
│  ZONE                  ▼        │
└─────────────────────────────────┘
```

5. Using the up and down-arrow keys ⬆⬇ , scroll the menu to select one of ZONE, PARTITION or AT-HOME ARMING and press **Enter** [Enter ↵] . The current event code for the type of status change selected is displayed.

```
┌─────────────────────────────────┐
│  ZONE                           │
│  CODE: 570                      │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  ENTER                          │
│  CODE: _ _ _                    │
└─────────────────────────────────┘
```

6. Enter the three digit restore code. To enter a hexadecimal digit (i.e. A-B-C-D-E-F), press the ⬚ key to enter hexadecimal mode. Then press 2 repeatedly to enter A, B, C or 2 and press 3 repeatedly to enter D, E, F or 3. To enter the digit in hexadecimal mode, you must press the right-arrow key ▶ (even for the last digit). Otherwise the cursor stays at the same position. To return to the normal keypad, press ⬚ . When you are finished typing the three digits, press **Enter** ⬚ . The new restore code is displayed, and the system returns to the REPORT menu.

5.1.8 Reporting Speed to the Central Alarm Facility

**Definition**: These parameters are used to establish communications with the central alarm facility.

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** ⬚ .

```
┌─────────────────────────────────┐
│  PROGRAM AUX'S                  │
│  REPORT                    ▲    │
└─────────────────────────────────┘
```

3. Using the up and down arrow keys, scroll the menu until the item displayed is REPORT and press **Enter** ⬚ .

```
┌─────────────────────────────────┐
│  REPORT              ▲          │
│  SPEED                          │
└─────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is SPEED and press **Enter** ⬚ .

Modifying the Make Value

```
┌─────────────────────────────────┐
│  SPEED                          │
│  MAKE                ▼          │
└─────────────────────────────────┘
```

5. In the scrolling menu , use the down-arrow keys to select Make and press **Enter** ⬚ . The current parameter setting is displayed

```
    SPEED
    MAKE: 50 MSEC
```

```
    TO MODIFY. . . . .   (↵)
    TO QUIT. . . . . . .   (X)
```

7. Press **Enter** [Enter ↵] to modify the value or **Cancel** to quit. It can be adjusted from 20 to 150MSEC.

```
    MAKE
    _ _ _ MSEC
```

8. Enter the desired value and press **Enter**. The new setting is displayed and the system returns to the SYSTEM menu.

Modifying the Brake Value

5. In the scrolling menu , use the down-arrow keys to select Brake. It can be adjusted from 20 to 150MSEC.

```
    SPEED
    BRAKE                    ▼
```

6. Press **Enter** [Enter ↵] key at BRAKE; the current parameter setting is displayed

```
    SPEED
    BRAKE: 50 MSEC
```

```
    TO MODIFY. . . . .   (↵)
    TO QUIT. . . . . . .   (X)
```

7. Press **Enter** [Enter ↵] to modify the value or **Cancel** to quit.

```
    BRAKE
    _ _ _ MSEC
```

8. Enter the desired value and press **Enter**. It can be adjusted from 20 to 150 MSEC. The new setting is displayed and the system returns to the REPORT menu.

5.2 DIALING INFORMATION

Definition: These parameters are used to establish communications over the telephone network when the dialout sequence is used.

Setting:

1. Press the **System** key [System]. The current revision number of the software program is displayed. The installer password must then be entered. Enter the installer password (9601 by default) and press **Enter** [Enter] .

```
+---------------------------------+
|   SOFTWARE                      |
|            REV.  x.xxx          |
+---------------------------------+
```

```
+---------------------------------+
|   ENTER INSTALLER               |
|   PASSWORD: _ _ _ _             |
+---------------------------------+
```

2. Using the up and down-arrow keys [▲][▼] , scroll the menu until the item displayed is PROGRAM DIALING and press **Enter** [Enter] .

```
+---------------------------------+
|   SYSTEM                        |
|   PROGRAM ZONES   ▼             |
+---------------------------------+
```

```
+---------------------------------+
|   SYSTEM                        |
|   PROGRAM DIALING  ⬍            |
+---------------------------------+
```

3. To modify a parameter, scroll the menu using the up and down arrow keys [▲][▼] until you reach the parameter you want to modify and press **Enter**.

```
+---------------------------------+
|   PROGRAM DIALING               |
|   CALL START DLY   ▼            |
+---------------------------------+
```

5.2.1 Dialing Mode and Speed

Definition: The user can choose between pulse and tone dialing. Both methods have parameters associated with dialing speed.

> 👉 The default values used are correct for Canada and the United States. When changing these parameters, make sure the new values are compatible with your local telephone network. If this is not the case, the system may not be able to dial out.

1. DTMF Speed (Dual Tone Multiple Frequency Speed): This is the dialing speed used on tone dialing lines. Tone dialing is available only when the central telephone office is equipped to process the tones. Some rural areas, for example, are not equipped for tone dialing. The speed corresponds to the length of the tone as well as the delay between digits (or interdigit time). The value ranges from 50 to 250 milliseconds. The default is 80 mS.

2. Pulse Speed: This is the dialing speed used on pulse dialing lines. Pulse dialing is used only when tone dialing is not available because it is slower. Pulse dialing uses a timed interval of circuit opening and closing called a dial pulse period. Each digit is translated as a series of pulses. Each digit is separated by an interdigit interval (see Figure 34). The pulse period is the sum of the make (circuit closed) and the break (circuit opened). The make ranges from 10 to 100 msec (default 39 mS); the break ranges from 10 to 100 msec (default 61 mS); the interdigit ranges from 0.6 to 3 seconds (default is 0.8 seconds).

Figure 34: Pulse Timing Parameters
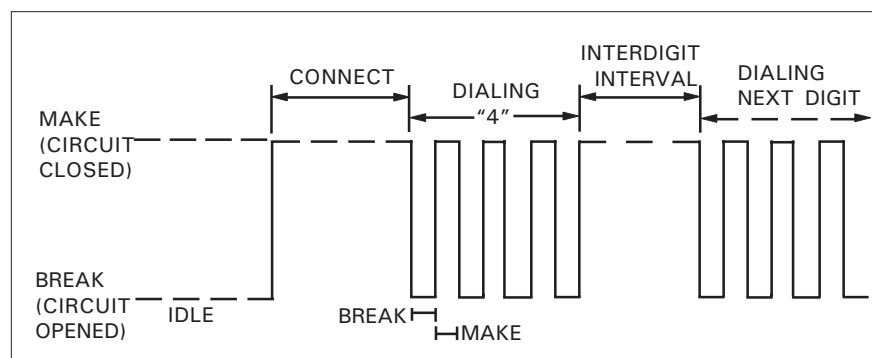
5.2.1.1 Dialing Mode

4. Follow the procedure above for modifying the dialing parameters (Section 5.2). When you reach the scrolling menu, use the arrow keys ⬆⬇ to select DIALING MODE then **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│   PROGRAM DIALING      ▲         │
│   DIALING MODE         ▼         │
└─────────────────────────────────┘
┌─────────────────────────────────┐
│   MODE . . . . . . . .    (1)    │
│   SPEED . . . . . . . .   (2)    │
└─────────────────────────────────┘
```

5. Type **1** to modify dialing mode. The current dialing mode is displayed.

```
┌─────────────────────────────────┐
│   DIALING MODE                   │
│   TONE                           │
└─────────────────────────────────┘
┌─────────────────────────────────┐
│   TO MODIFY. . . . .   (↵)       │
│   TO QUIT. . . . . . .  (X)      │
└─────────────────────────────────┘
```

6. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

```
┌─────────────────────────────────┐
│   TONE . . . . . . . . .   (1)   │
│   PULSE . . . . . . . .    (2)   │
└─────────────────────────────────┘
```

7. Type **1** for tone dialing, or **2** for pulse dialing. The new setting is displayed and the system returns to the PROGRAM DIALING menu.

5.2.1.2 Tone Dialing Speed

4. Follow the procedure above for modifying the dialing parameters (Section 5.2).

When you reach the scrolling menu, use the arrow keys ⬆⬇ to select DIALING

MODE then **Enter** [Enter ↵] .

```
PROGRAM DIALING
DIALING MODE   ♦
```

```
MODE . . . . . . . .    (1)
SPEED . . . . . . . .   (2)
```

5. Type **2** to modify dialing speed.

```
TONE . . . . . . . . .    (1)
PULSE . . . . . . . .    (2)
```

6. Type **1** to modify tone dialing speed. The current parameter setting is displayed.

```
DTMF SPEED
80 MSEC
```

```
TO MODIFY. . . . .    (↵)
TO QUIT. . . . . . .    (X)
```

7. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

```
DTMF SPEED
_ _ _ MSEC
```

8. Enter the value desired and press **Enter**. It ranges from 50 to 250 MSEC. The new setting is displayed and the system returns to the PROGRAM DIALING display.

5.2.1.3 Pulse Dialing Speed

4. Follow the procedure above for modifying the dialing parameters (Sec. 5.2). When you reach the scrolling menu, use the arrow keys ⬆⬇ to select DIALING MODE then press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│  PROGRAM DIALING                │
│  DIALING MODE   ⬍               │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  MODE . . . . . . . .   (1)      │
│  SPEED . . . . . . . .  (2)      │
└─────────────────────────────────┘
```

5. Type **2** to modify dialing speed.

```
┌─────────────────────────────────┐
│  TONE . . . . . . . . .  (1)     │
│  PULSE . . . . . . . .   (2)     │
└─────────────────────────────────┘
```

6. Type **2** to modify pulse dialing speed. A scrolling menu appears. Use the arrow keys ⬆⬇ to select the item to modify: Make, Break, or Interdigit Interval.

Modifying the Make Value:

7. In the scrolling menu for Pulse Speed, use the arrow keys ⬆⬇ to select MAKE.

```
┌─────────────────────────────────┐
│  PULSE                          │
│  MAKE            ▼              │
└─────────────────────────────────┘
```

8. Press the **Enter** [Enter ↵] key at MAKE; the current parameter setting is displayed.

```
┌─────────────────────────────────┐
│  PULSE SPEED                    │
│  MAKE:  39MSEC                  │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TO MODIFY. . . . .   (↵)        │
│  TO QUIT. . . . . . .  (X)       │
└─────────────────────────────────┘
```

9. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

```
┌─────────────────────────────────┐
│  MAKE                           │
│  _ _ _  MSEC                    │
└─────────────────────────────────┘
```

10. Enter the value desired and press **Enter**. Adjustable from 10 to 100 MSEC. The new setting is displayed and the system returns to the PROGRAM DIALING menu.

Modifying the Break Value:

7. In the scrolling menu for Pulse Speed, use the arrow keys ⏫⏬ to select Break

> **PULSE**
> **BREAK**   ▲
>   ▼

8. Press the **Enter** ⏎ key at BREAK; the current parameter setting is displayed.

> **PULSE SPEED**
> **BREAK: 61 MSEC**

> **TO MODIFY. . . . .   (↵)**
> **TO QUIT. . . . . . .   (X)**

9. Press **Enter** ⏎ to modify the value or **Cancel** ✕ to quit.

> **BREAK**
> **_ _ _ MSEC**

10. Enter the value desired and press **Enter**. Adjustable from 10 to 100 MSEC. The new setting is displayed and the system returns to Pulse Speed scrolling menu.

Modifying the Interdigit Interval:

7. In the scrolling menu for Pulse Speed, use the arrow keys ⏫⏬ to select INTERDIGIT

> **PULSE**
> **INTERDIGIT**   ▲

8. Press the **Enter** ⏎ key at INTERDIGIT; the current parameter setting is displayed.

> **PULSE SPEED**
> **INTERDIGIT: 0.8 SEC**

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

9. Press **Enter** `Enter ↵` to modify the value or **Cancel** `Cancel ✗` to quit.

```
INTERDIGIT
_ _ _ SEC
```

10. Enter the value desired and press **Enter**. It ranges from 0.6 to 3 seconds. The new setting is displayed and the system returns to the PROGRAM DIALING menu.

5.2.2 Line Seizure

Definition: This parameter is used to activate or deactivate line seizure if your system has been wired for line seizure (see section 1.4.5). If this feature is not enabled, line seizure will not function even if the proper wiring connections have been made.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2).

When you reach the scrolling menu, use the arrow keys ▲▼ to select Line Seizure.

```
PROGRAM DIALING
LINE SEIZURE        ⬍
```

5. Press **Enter** `Enter ↵` . The current parameter setting is displayed.

```
LINE SEIZURE
STATUS: ENABLE
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

6. Press **Enter** `Enter ↵` to modify the value or **Cancel** `Cancel ✗` to quit.

```
ENABLE. . . . . . . .   (1)
DISABLE. . . . . . .   (2)
```

7. Type **1** to enable line seizure, or **2** to disable line seizure. The new setting is displayed and the system returns to PROGRAM DIALING scrolling menu.

5.2.3 # of Call Repetitions

Definition: When an alarm is validated, the system starts calling the phone numbers stored in memory to deliver the alarm message. The Call Repetition determines the number of times this procedure is accomplished within one alarm dialout sequence. The value ranges from 1 to 7 times. The default is 7.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2).

When you reach the scrolling menu, use the arrow keys ⏶⏷ to select #OF CALL REPETITIONS.

> **PROGRAM DIALING**
> **# OF CALL REPS.** ⬍

5. Press **Enter** [Enter ↵]. The current parameter setting is displayed.

> **# OF CALL REPS.**
> **6 CALLS**

> **TO MODIFY. . . . . (↵)**
> **TO QUIT. . . . . . . (X)**

6. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✗] to quit.

> **# OF CALL REPS.**
> **_ CALLS**

7. Enter the value desired and press **Enter**. Ranges from 1 to 7 calls. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.4 Message Repetitions

Definition: The number of times a voice message is delivered by the system when an alarm condition is reported. This applies to the messages given over the phone and on the unit speaker. The value ranges from 2 to 15 times. The default is 3.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2). When you reach the scrolling menu, use the arrow keys ⏶⏷ to select Message Repeats.

```
PROGRAM DIALING
MESSAGE REPEATS ⬍
```

5. Press **Enter** [Enter ↵] at MESSAGE REPETITIONS. The current parameter setting is displayed.

```
MESSAGE REPEATS
3 TIMES
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

6. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

```
MESSAGE REPEATS
_ _  TIMES
```

7. Enter the value desired and press **Enter**. Ranges from 2 to 15 times. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.5 Busy Tries

Definition: The number of times a phone number is called when the local line is busy. This parameter applies equally to all the phone numbers in the dialout sequence. The value ranges from 0 to 3 tries. The default is 1 try. When the local line is busy and Busy Tries is greater than zero, the busy number is placed at the end of the dialout sequence.

Once all the other numbers have been dialed, the system returns to the busy numbers and tries again, etc. If the number is reached before all the tries defined in Busy Tries have been done, it is not redialed.

Note: If you have not configured the phone hookup to provide line seizure capability and someone is using the phone when the dialout sequence is launched, the system counts this as a try, as if all the phone numbers in the dialout sequence were busy.

If the Busy Tries parameter is set to zero, <u>no other tries will be made in this case and the alarms that set off the dialout sequence will automatically be acknowledged.</u>

Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2).

When you reach the scrolling menu, use the arrow keys ⏶⏷ to select BUSY TRIES.

> **PROGRAM DIALING**
> **BUSY TRIES**   ⬍

5. Press **Enter** [Enter]. The current parameter setting is displayed.

> **BUSY TRIES**
> **1 TIME**

> **TO MODIFY. . . . . (↵)**
> **TO QUIT. . . . . . . (X)**

6. Press **Enter** [Enter] to modify the value or **Cancel** [Cancel] to quit.

> **BUSY TRIES**
> **_ TIMES**

7. Enter the value desired and press **Enter**. Ranges from 0 to 3 times. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.6 Tone Delay

Waiting Time for Dial Tone: This is the time the system waits after hooking up to a line before dialing a number. This ensures that the line is ready before dialing (see Figure 35 below). The system can be set to wait from 1 to 15 seconds after hookup. The default is 4 seconds.

Figure 35: Waiting Time
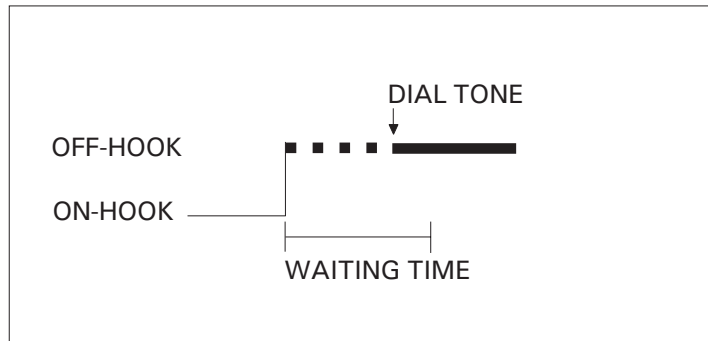
Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2). When you reach the scrolling menu, use the arrow keys ⬆⬇ to select TONE DELAY.

> **PROGRAM DIALING**
> **TONE DELAY**   ⬍

5. Press **Enter** [Enter] at Tone Delay. The system prompts for the waiting time.

> **WAITING TIME FOR**
> **DIAL TONE: 4 SEC**

> **TO MODIFY. . . . .   (↵)**
> **TO QUIT. . . . . . .   (X)**

6. Press **Enter** [Enter] to modify the value or **Cancel** [Cancel] to quit.

> **WAITING TIME FOR**
> **DIAL TONE: _ _ SEC**

7. Enter the value desired and press **Enter**. Ranges from 1 to 15 seconds. The new parameter setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.7 Pause Delay Key

Definition: This parameter is associated with the **Pause** key `Pause` . This key is used to introduce a pause in a telephone number when dialing. The Pause Delay is the length of the pause. For example, if you need to exit a local phone network before reaching an outside line, you can use the **Pause** key after entering the access code (usually '9' —see Section 5.3). The range is from 1 to 255 seconds. The default is 4 seconds.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Sec. 5.2). When you reach the scrolling menu, use the arrow keys ⬆⬇ to select Pause Delay.

```
PROGRAM DIALING
PAUSE DELAY KEY  ▲
```

5. Press **Enter** `Enter ↵` . The current parameter setting is displayed.

```
PAUSE DELAY KEY
4 SEC
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

6. Press **Enter** `Enter ↵` to modify the value or **Cancel** `Cancel ✕` to quit.

```
PAUSE DELAY KEY
_ _ _ SEC
```

7. Enter the value desired and press **Enter**. It ranges from 1 to 255 seconds. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.8 Call Start Delay

Definition: The time between the validation of an alarm and the beginning of the dialout sequence. A zero value means the dialout sequence begins immediately after an alarm validation.   When an alarm is validated, a message is delivered on-site through the speaker on the front panel and the siren is sounded if it is enabled for the zone in alarm. Call Delay allows someone on-site to acknowledge an alarm before the dialout sequence is launched. Note that if the system's voice mute is enabled, no message is delivered on-site before dialout. The value ranges from 0 to 59 minutes. The default is 1 minute.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2).

When you reach the scrolling menu, use the arrow keys ⏶⏷ to select CALL START DELAY.

> **PROGRAM DIALING**
> **CALL START DLY** ▼

5. Press **Enter** [Enter ↵] . The current parameter setting is displayed.

> **CALL START DLY**
> **1 MIN**

> **TO MODIFY. . . . . (↵)**
> **TO QUIT. . . . . . . (X)**

6. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

> **CALL START DLY**
> **_ _   MIN**

7. Enter the value desired and press **Enter**. It ranges from 0 to 59 minutes. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.9 Time Between Calls

Definition: The delay after a phone number has been called, before proceeding with the next number in the dialout sequence. If someone who has received a voice message is unable to acknowledge the alarm at the time of the call, this parameter will delay the dialout sequence between calls. For example, when the alarm message is received on a pager or beeper, the user may need more time to phone back and acknowledge. If the system is continuously dialing out, no calls can be made to the system to acknowledge an alarm. An intercall time that is greater than zero makes this possible. The value ranges from 0 to 59 minutes. The default is 1 minute.

Setting:

4. Follow the procedure above for modifying the dialing parameters (sec. 5.2). When you reach the scrolling menu, use the arrow keys ⬆⬇ to select BETWEEN CALL TIME.

> **PROGRAM DIALING**
> **BETWEEN CALL TM ⬍**

5. Press **Enter** [Enter ↵] . The current parameter setting is displayed.

> **BETWEEN CALL TM**
> **1 MIN**

> **TO MODIFY. . . . . (↵)**
> **TO QUIT. . . . . . . (X)**

6. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

> **BETWEEN CALL TM**
> **_ _ MIN**

7. Enter the value desired and press **Enter**. It ranges from 0 to 59 minutes. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.10 Alarm Recall Time

Definition: This parameter is used to relaunch the dialout sequence when an alarm has been acknowledged but has not been reset. Recall time is the length of time between the time the alarm is acknowledged and the time the dialout sequence is relaunched (as long as the zone has not returned to its normal state for the duration of reset time). If the alarm is reset before the recall time has elapsed, the planned dialout sequence is cancelled. This parameter ranges from 0 to 12 hours, 59 minutes. The default value is 30 minutes.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Section 5.2).

When you reach the scrolling menu, use the arrow keys ▲▼ to select ALARM

RECALL TIME.

```
PROGRAM DIALING
ALARM RECALL TM ⬍
```

5. Press **Enter** [Enter ↵] . The current parameter setting is displayed.

```
ALARM RECALL TM
00 HR,  30 MIN
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

6. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✗] to quit.

```
ALARM RECALL TM
_ _ : _ _ (HR:MIN)
```

7. Enter the value desired and press **Enter**. It ranges from 0h;0m to 12h59m. The new setting is displayed and the system returns to the PROGRAM DIALING scrolling menu.

5.2.11 Restore Calls

Definition: This feature launches the dialout sequence when a zone in alarm returns to its normal state to advise of the change. It can be enabled or disabled and the default setting is DISABLED.

Setting:

4. Follow the procedure above for modifying the dialing parameters (Sec 5.2). When you reach the scrolling menu, use the arrow keys ⬆⬇ to select RESTORE CALLS.

```
PROGRAM DIALING
RESTORE CALLS      ⬍
```

5. Press **Enter** | Enter ◢ | . The current parameter setting is displayed.

```
RESTORE CALLS
STATUS : DISABLE
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .  (X)
```

6. Press **Enter** | Enter ◢ | to modify the value or **Cancel** | Cancel ✗ | to quit.

```
ENABLE . . . . . . .  (1)
DISABLE  . . . . . .  (2)
```

7. Type **1** to enable restore calls, or **2** to disable restore calls. The new setting is displayed and the system returns to PROGRAM DIALING scrolling menu.

5.2.12 Disable the Dialer

Definition: This function allows to disable the dialing sequence in specified zones. The dialout sequence will not be launched when an alarm occurs in a zone that has a disabled dialer. By default, the dialer is enabled on all zones.

4. Follow the procedure above for modifying the dialing parameters (Section 5.2). When you reach the scrolling menu, use the arrow keys ▲ ▼ to select DIALER DISABLED.

> **PROGRAM DIALING**
> **DIALER DISABLED** ▲

5. Press **Enter** [Enter ↵] . The zones without dialer are displayed.

> **NO DIALER ZONE #**
> **4**

To add a zone:

6. Press **Enter** [Enter ↵] to ADD a zone on which the dialer will be disabled. Press the down-arrow key to remove a zone from the dialer-disabled list.

> **DIALER DISABLED**
> **ADD ZONE** ▼

7. Press **Enter** [Enter ↵] to ADD a zone on which the dialer will be disabled. Press the down-arrow key to remove a zone from the dialer-disabled list.

> **SELECT ZONE**
> **(1 . . 96) :** _

8. Select the zone on which the dialer must be disabled then press **Enter** [Enter ↵] . The new setting is displayed and the system returns to PROGRAM DIALING menu.

To remove a zone:

6. Select DEL to reactivate the dialer on a zone. Then follow the prompts on screen.

> **DIALER DISABLED**
> **DEL ZONE** ▲

5.3 PHONE NUMBERS

Definition: Phone numbers are used to report alarm conditions. Various methods are available: voice messages, paging and beeper calls. Each number can contain up to 32 digits. A maximum of 16 phone numbers can be stored by the system. The order of the numbers stored in memory defines the dialout sequence used when an alarm is validated, i.e. the first number stored is the first number called in an alarm.

Setting:

1. Press the **Phone numbers** key | 1 Phone numbers |. The numbers currently stored in memory are displayed along with their parameter definitions. To stop the display and enter pro-gramming mode, press the **Cancel** key | Cancel ✗ |.

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

2. Press **Enter** | Enter ↵ | to modify.

```
SELECT PHONE
NUMBER (1 .. 16): _ _
```

3. Type the number of the phone number to modify and press **Enter**. The current value for this phone number is displayed.

```
ENTER PHONE #n
```

4. Type the phone number. Up to 20 digits can be entered. If you press the Enter key without entering any digits, the current phone number is erased from memory and the message PHONE NUMBER DELETED is displayed. Special characters are available for use with tone dialing: use the **Asterisk (*)** | * Outdoor | or **Pound (#)** | # Trouble | keys to enter these characters in a phone number. Each one of these characters counts as one digit in the number. Press the **Pause** | Pause | key to enter a pause in the dialing.   This is useful when an access code is needed to reach an outside telephone line. For ex-ample, if you dial "9" to access the telephone lines and wait 3 seconds before dialing

the number, you can use the Pause key feature. The Pause Delay parameter can be set to the smallest value needed for dialing pauses, for example 1 second. In the phone number definition, press the pause $\boxed{\text{Pause}}$ key as many times as needed for the length of the pause. For example, **9 - Pause - Pause - Pause - 1234567** will wait three seconds before dialing the seven-digit number (note that the Pause key is displayed as P on the screen).

5. Once all the digits have been entered, press **Enter**. The new phone number is displayed. The system then prompts for the type of system associated with the number.

> **PHONE NUMBER OF**
> **HOME**   ▼
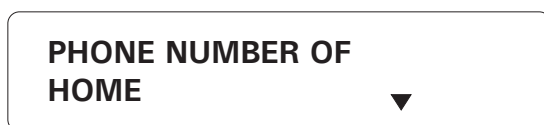
The possible types are presented in a scrolling menu. Use the arrow keys 🔺🔻 to select the type and press **Enter**.

5.3.1 Home

Definition: When this type of number is called, the system delivers a voice message describing the alarm condition to a home telephone.

Setting:

1. Follow the procedure above (5.3).

2. Use the arrow keys 🔺🔻 to select the HOME option press **Enter** $\boxed{\text{Enter} \lrcorner}$. The system prompts for another phone number. If you are finished, press **Cancel** $\boxed{\text{Cancel} \times}$.

5.3.2 Cellular

Definition: When this type of number is called, the system delivers a voice message describing the alarm condition to a cellular telephone.

Setting:

1. Follow the procedure above (5.3).

2. Use the arrow keys 🔺🔻 to select the CELLULAR option press **Enter** $\boxed{\text{Enter} \lrcorner}$. The system prompts for another phone number. If you are finished, press **Cancel** $\boxed{\text{Cancel} \times}$.

5.3.3 Beeper

Definition: This type of number is used with beeper systems. When the number is dialed, the beeper unit simply beeps.

Setting:

1. Follow the procedure above (5.3).

2. Use the arrow keys ⬆⬇ to select the BEEPER option press **Enter** [Enter ↵]. The system prompts for another phone number. If you are finished, press **Cancel** [Cancel ✕].

5.3.4 Pager

Definition: This type of number is used to access a numeric pager system. When a pager device is paged, a code number is displayed on the pager screen. The Agri-Alert uses this number to transmit information to the user. The code is in the form of a telephone number and contains the following information:

1SS - AAAA

AAAA: is the four-digit code describing the type of alarm.

SS: is the two-digit code of the site where the alarm occurred.

1: is a place-holder

SS is the site where the Agri-Alert is installed. AAAA is an alarm code generated by the Agri-Alert. The site number is defined by the user. For example, if two Agri-Alerts are installed on separate sites, the user can identify each site with a unique code number. In the example below, alarm code 3000 is used as a test code.

Number displayed on the pager device

| Site **01** |

→ **101** - 3000

| Site **02** |

→ **102** - 3000
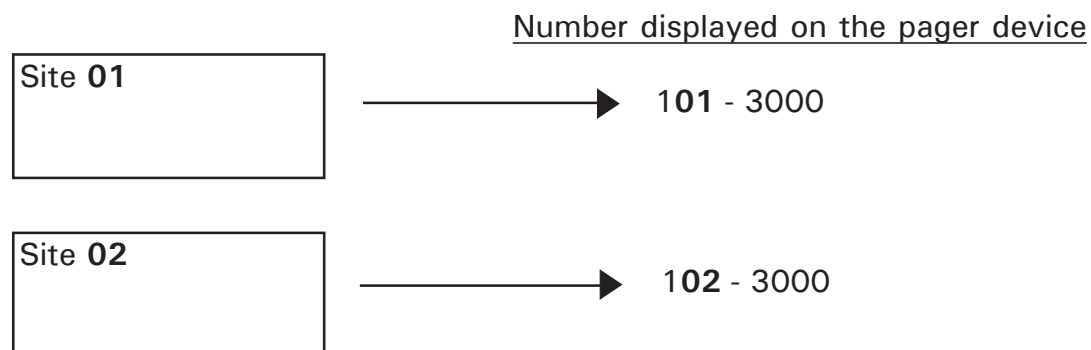
Table 2 below defines the codes used. **RESTORE ZONE** means the zone returns to its normal state.

Table 2: Pager Codes Used by the Agri-Alert System

PAGER CODE		MEANING
1001, 1002, … , 1096		ALARM ZONE 1, 2, … , 96
2001, 2002, … , 2096		RESTORE ZONE 1, 2, … , 96
3000		TEST
PROBLEM ENCOUNTERED	8001	LOW BATTERY
	8002	16VAC FAILURE
	8003	HIGH SYSTEM TEMPERATURE
	8004	LOW SYSTEM TEMPERATURE
	8005	PHONE LINE CUT
	8006	12VDC OUTPUT DEFECT
	8007	SIREN DEFECT
	8008	SBI OUTPUT
	8009	SYSTEM AUTO STANDBY
	8010	SYSTEM TROUBLE
PROBLEM RESTORED	9001	BATTERY O.K.
	9002	16VAC O.K.
	9003	SYSTEM TEMPERATURE O.K.
	9004	SYSTEM TEMPERATURE O.K.
	9005	PHONE LINE O.K.
	9006	12VDC OUTPUT O.K.
	9007	SIREN O.K.
	9008	SBI OUTPUT O.K.

Figure 36 below shows the sequence of events. The Agri-Alert first dials the number of the pager device. When the pager system responds, the Agri-Alert waits for the voice message from the pager system to finish. In the diagram, this is called the message delay. The diagram shows an additional delay used to ensure that the pager system is ready to receive the code number from the Agri-Alert system. This is up to the system (usually 3 seconds). Following this, the Agri-Alert dials the seven digit code number or numbers to be displayed on the pager device. When configuring a number as a pager number, the user enters the value: **Message Delay** when the system prompts for the Delay for Pager.

Figure 36: Calling a Pager Number
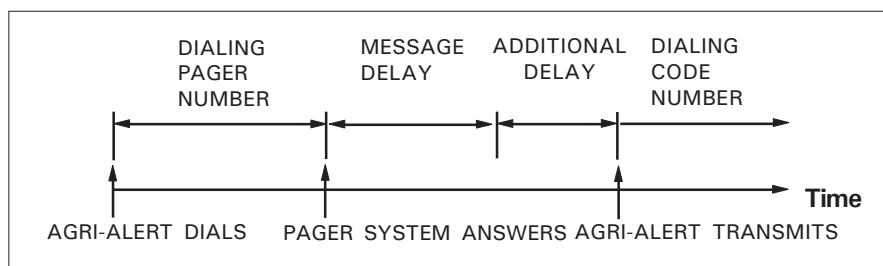
```
  DIALING       MESSAGE   ADDITIONAL   DIALING
  PAGER         DELAY     DELAY        CODE
  NUMBER                               NUMBER

                                              ─────► Time

AGRI-ALERT  DIALS    PAGER  SYSTEM  ANSWERS  AGRI-ALERT  TRANSMITS
```

Setting:

1. Follow the procedure above (5.3).

2. Use the arrow keys ⬆⬇ to select the BEEPER option press **Enter** [Enter].

> **ENTER CODE TO**
> **PAGE (0 .. 99):** _ _

3. Enter the two digit code used to identify the site and press **Enter** [Enter].

> **DELAY FOR PAGER**
> **(0 .. 59 SEC):** _ _

4. Enter the total delay (Message Delay) used to wait for the end of the pager message and press **Enter** [Enter]. The system prompts for another phone number. If you are finished, press **Cancel** [Cancel].

5.3.5 Alarm Report

Definition: This type of number is used to report an alarm to a central alarm monitoring facility. The protocol used is CONTACT ID (see section 5.1). Only one such number is allowed. If a phone number is already defined as an alarm report number, the option is removed from the scrolling menu.

Setting:

1. Follow the procedure at 5.3.

2. Use the arrow keys ⬆⬇ to select ALARM REPORT and press **Enter** [Enter]. The system prompts for another telephone number. If you are finished, press **Cancel** [Cancel ✗].

5.3.6 Test Report

Definition: This type of number is used to report to a central alarm monitoring facility on a regular basis. The protocol used is CONTACT ID (see section 5.1). The report confirms that everything is functioning normally and that no alarms are pending. Only one such number is allowed. If a phone number is already defined as an test report number, the option is removed from the scrolling menu. The reporting interval can be defined in terms of hours or days. In the first case, the next report is scheduled starting from midnight. In the second case, the report is always sent at the same time of day and the user defines the number of days between reports. We recommend defining a reporting period during the night.

Setting:

1. Follow the procedure at 5.3.

2. Use the arrow keys ⬆⬇ to select TEST REPORT and press **Enter** [Enter].

```
┌────────────────────────────────┐
│  REPORT PERIOD                 │
│                                │
│                                │
└────────────────────────────────┘
┌────────────────────────────────┐
│  DAYS . . . . . . . . .   (1)   │
│  HOURS . . . . . . . .    (2)   │
└────────────────────────────────┘
```

Reporting period at regular intervals (hours):

3. Type **2** to define a reporting interval in terms of hours:

> **REPORT PERIOD**
> **(1..24 HRS) :** _ _

4. Enter the number of hours between test reports and press **Enter** ⏎ .

Reporting period at a preset time:

3. Type **1** above to define a preset time for reporting:

> **REPORT PERIOD**
> **(1..30 DAYS) :** _ _

> **REPORT HOUR**
> _ _ : _ _ **(HR:MIN)**

4. Enter the number of days between reports and press **Enter**. Enter the hours (12-hour or AM/PM format) and press **Enter**; enter the minutes and press **Enter**.

> **AM . . . . (1)**
> **PM . . . . (2)**

5. Type 1 for AM or 2 for PM.   The system prompts for another telephone number.

If you are finished, press **Cancel** ✗ .

5.4 ON SITE LISTENING

Definition: This feature allows the user to listen to on-site sounds during a status report or an alarm report. The integrated microphone on the control panel is used for this purpose. An external microphone can also be hooked up for on-site listening. The user can enable or disable on-site listening and adjust the listening time. The default setting is DISABLED with a listening time of 30 seconds.

Setting:

1. Press the **On-site Listening** key ⌨[7PRS On-site Listening]. The status (Enabled/Disabled) is displayed, followed by the current listening time.

```
STATUS:  ENABLE
DELAY:  10 SEC.
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

2. Press **Enter** [Enter ↵] to modify or **Cancel** [Cancel X] to quit.

```
STATUS . . . . . . .   (1)
DELAY . . . . . . . .   (2)
```

To enable or disable on-site listening:

```
ENABLE . . . . . . .   (1)
DISABLE. . . . . . .   (2)
```

3. Type **1** to change the current status.

```
STATUS . . . . . . .   (1)
DELAY . . . . . . . .   (2)
```

4. Type **1** to enable or 2 to disable on-site listening. The new status is displayed and the system returns to the Date/Time display.

To adjust on-site listening time:

3. Type **2** to change the current state.

```
┌─────────────────────────────────────────┐
│                                         │
│   ENTER NEW DELAY                       │
│      _ _   SEC                          │
│                                         │
└─────────────────────────────────────────┘
```

4. Enter the new delay and press **Enter**. It ranges from 0 to 59 seconds. The system displays the new delay setting and returns to the Date/Time display.

5.5 RINGS / ANSWERING MACHINE

Definition: The user can define the number of rings before an incoming call is answered, for example for a status report. The values range from 1 to 20 rings. The system can also be configured to connect a telephone answering device on the same phone line. When this feature is enabled, the Agri-Alert system answers incoming calls only if a special ring sequence is followed. Otherwise, the telephone answering device takes the call after a preset number of rings. The special ring sequence used to connect to the Agri-Alert system is as follows:

- — dial the Agri-Alert phone number and hang-up after one ring
- — redial the number after 30 seconds have elapsed
- — after the first ring, the Agri-Alert system will answer the call

If the answering machine is set to answer after one ring, it must be set to more than one ring for this sequence to work. If an answering machine is not used, any calls made to the Agri-Alert system are answered after the number of rings defined. By default, the number of rings is set to 8 and the answering machine feature is disabled.

Setting:

1. Press the **Ring** key [9wxy Ring]. The current parameter setting is displayed.

```
┌─────────────────────────────┐
│                             │
│  8 RINGS                    │
│                             │
│                             │
└─────────────────────────────┘

┌─────────────────────────────┐
│                             │
│  TO MODIFY. . . . .   (↵)   │
│  TO QUIT. . . . . . .  (X)  │
│                             │
└─────────────────────────────┘
```

2. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel X] to quit.

```
┌─────────────────────────────┐
│                             │
│  DO YOU HAVE ANS-           │
│  WERING MACHINE?            │
│                             │
└─────────────────────────────┘

┌─────────────────────────────┐
│                             │
│  YES . . . . . . . . . .   (1)  │
│  NO . . . . . . . . . .   (2)   │
│                             │
└─────────────────────────────┘
```

To Enable / Disable Answering Machine:

3. Type **1** to use an answering machine with the Agri-Alert system. The system returns to the Date/Time display.

To Set Number of Rings:

3. Type **2** to disable the answering machine feature and set the number of rings before the Agri-Alert system answers a call.

```
ENTER NEW NUMBER
OF RINGS:  _ _
```

4. Type the new number of rings and press **Enter**. It ranges from 1 to 20 rings. The system displays the new value and returns to the Date/Time display.

5.6 SYSTEM'S VOICE MUTE

Definition: When an alarm condition is validated, an alarm message is immediately delivered through the unit speaker. You can turn the speaker on or off. By default, the mute function is disabled and the speaker is turned on.

Setting:

1. Press the **System** key ⌈System⌉. The current revision number of the software program is displayed. The installer password must then be entered.

```
ENTER INSTALLER
PASSWORD: _ _ _ _
```

2. Enter the installer password (9601 by default) and press **Enter** ⌈Enter ↵⌉.

```
SYSTEM
PROGRAM SYSTEM ⬍
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** ⌈Enter ↵⌉ .

```
PROGRAM SYSTEM
SYST.VOICE MUTE ⬍
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is SYSTEM'S VOICE MUTE and press **Enter** ⌈Enter ↵⌉ .

```
SYST.VOICE MUTE
STATUS: DISABLE
```

```
TO MODIFY          (↵)
TO QUIT            (X)
```

5. The status (Enabled/Disabled) is displayed. Press **Enter** to modify the status.

```
ENABLE . . . . . . .   (1)
DISABLE  . . . . . .   (2)
```

6. Type **1** to enable restore calls, or **2** to disable the speaker. The new setting is displayed and the system returns to Program Aux's scrolling menu.

5.7 PHONE LINE CUT MONITORING

Definition: This function sets off an alarm if the phone line is cut. By default, this feature is enabled.

Setting:

1. Press the **System** key $\boxed{\text{System}}$.   The current revision number of the software program is displayed. The installer password must then be entered.

```
ENTER INSTALLER
PASSWORD: _ _ _ _
```

2. Enter the installer password (9601 by default) and press **Enter** $\boxed{\text{Enter} \atop ↵}$.

```
SYSTEM
PROGRAM AUX'S      ▲
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** $\boxed{\text{Enter} \atop ↵}$.

```
PROGRAM AUX'S
MONITORING         ⬍
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is MONITORING and press **Enter** $\boxed{\text{Enter} \atop ↵}$.

```
     MONITORING
     PHONE LINE      ▼
```

5. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is PHONE LINE and press **Enter** [Enter↵] .

```
     MONITORING
     STATUS:  DISABLE
```

```
     TO MODIFY. . . . .   (↵)
     TO QUIT. . . . . . .   (X)
```

6. Type **Enter** [Enter↵] to modify the status or **Cancel** [Cancel ✗] to exit this function without making a change.

```
     ENABLE . . . . . . . .  (1)
     DISABLE . . . . . . .   (2)
```

7. Type **1** to enable or **2** to disable phone line cut monitoring. The system returns to the PROGRAM AUX'S. menu.

CHAPTER SIX: SPECIAL FUNCTIONS

6.1 TROUBLE INFORMATION

Definition: When the Trouble LED lights up on the front panel, the user can query the system for more information. When a problem is detected on a device, the device is identified using a two-character string followed by the device id number, as follows:

KP - for a KPB-400 AND KP-400
TP - for a TP-800
LB - for a LB-9600
EC - for an extension card
BG - for a Bridge
RB - for a RB-800

If a TROUBLE message is displayed for a device, the possible causes are: (i) the device is disconnected from the SBI communication bus; (ii) a wire is cut; (iii) there is more than one device with the same id number (iv) an end of line is incorrectly configured. If the message LO SBI VOLTAGE is displayed for a device, check the end of line jumpers. If a trouble is detected on a zone (SHORT PROBE, OPEN PROBE, TROUBLE), check wiring.

1. Press the **Trouble** key ⬚#/Trouble . The system displays the information on the trouble

situation. If no trouble has been detected, the system displays **NO TROUBLE**.

```
ZONE #3
SHORT PROBE
```

```
TO ERASE . . . . . .  (1)
TO QUIT . . . . . . .  (2)
```

2. Type **1** to reset the trouble flag. Note that if the problem has not been corrected, the trouble LED will remain on. Type **2** to exit this function. The system returns to the Date/Time display.

6.2 STANDBY MODE

Definition: When the system is in standby mode, no monitoring of alarm inputs is done. The Standby LED on the display panel and the message SYSTEM ON STANDBY are used to indicate that the system is in Standby mode. **The system can automatically switch to standby mode** when a long power failure has drained the backup battery to a critical level. A pager message (code 8009) and a vocal message ("Low battery; system deactivated") are sent warning that the system is about to go into standby mode. When normal voltage is restored to the battery, the system returns to its normal mode of operations. If the system is already in standby mode when the problem is detected, no messages are sent.

Setting:

1. Press the **On/Off** key $\boxed{\text{On/Off}}$. The system prompts for a password.

> **ENTER MASTER**
> **PASSWORD:** _ _ _ _

2. Type the master password and press **Enter** $\boxed{\text{Enter} \downarrow}$. If an incorrect password is entered, the system responds with the message **"WRONG PASSWORD"** and returns to the Date/Time display. Otherwise, the system displays the current system status: **ON** — the system is running normally; **OFF** — the system is in standby mode.

> **OK**

> **STATUS: ON**

> **TO MODIFY. . . . .   (↵)**
> **TO QUIT. . . . . . .   (X)**

3. Press **Enter** $\boxed{\text{Enter} \downarrow}$ to modify or **Cancel** $\boxed{\text{Cancel} \times}$ to quit. The system displays the new status and returns to the Date/Time display.

> **ON . . . .   (1)**
> **OFF . . . .   (2)**

4. Type **1** to operate the system in normal mode or **2** place the system in Standby mode. The new setting is displayed, and the system returns to the Date/Time display.

6.3 EVENT BUFFER

Definition: The Agri-Alert keeps a record of all system events such as alarms, arming/disarmings, acknowledgments, dialouts, calls made to the system, parameter adjustments, etc. The event buffer can contain up to 2000 events. When the buffer is full, the oldest events are deleted to make way for the most recent events. Data stored for each event are as follows:

Event Number   Date

```
#1190:      08 OCT 2000
09:59PM         (0234) ▲▼
```
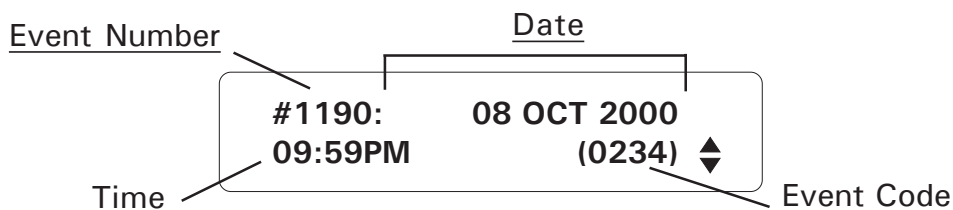
Time   Event Code

Event codes are given in Appendix E. The first two digits indicate the event type and the two last digits give the parameter (if applicable).

Display:

1. Press the **System** key System .   The current revision number of the software program is displayed. The installer password must then be entered.

```
ENTER INSTALLER
PASSWORD: _ _ _ _
```

2. Enter the installer password (9601 by default) and press **Enter** [Enter].

```
SYSTEM
PROGRAM SYSTEM      ▲▼
```

3. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is PROGRAM SYSTEM and press **Enter** [Enter] .

```
PROGRAM SYSTEM
EVENT              ▲▼
```

4. Using the up and down-arrow keys ▲▼ , scroll the menu until the item displayed is EVENT and press **Enter** [Enter].

```
ENTER MASTER
PASSWORD: _ _ _ _
```

5. Enter the master password (by default 9600 - see the user manual) and press **Enter**. The most recent event is displayed.

```
#1190:     08 OCT 2000
09:59PM          (0234) ▲▼
```

6. Use the arrow keys ▲▼ to scroll the events in the buffer. Press **Enter** [Enter] to

display the item number and password for the event selected. The item number

describes the item concerned by the event, for example, the zone or device number

(when applicable). Item numbers are explained in Appendix E.

```
ITEM#01
PASSWORD: 9600
```

7. Use the arrow keys ▲▼ to scroll to another event in the buffer. Press **Cancel**

[Cancel] to quit.

6.4 PROGRAMMABLE OUTPUTS

Definition: Programmable outputs are provided for general use. They can be enabled and disabled either from the keyboard or over the phone. These outputs can also be assigned to a zone and activated on an alarm. In this case, the user cannot change the output state; he/she can only restore the output to its normal state following an alarm on the zone. The following table shows the available outputs for each device:

Agri-Alert	2 outputs
TP-800	1 output
RB-800	8 outputs
KP-400	1 output
KPB-400	1 output

6.4.1 Switched Outputs on the Agri-Alert 9600

Definition: Use the following procedure to modify the state of a programmable output. This procedure is also used to restore an output to its normal state when an alarm has occurred on the zone assigned to it.

1. Press the **Output** key $\boxed{\text{Output}}$.

> **SELECT DEVICE**
> **(1..99)_ _**

2. Type 1 for the Agri-Alert device and press **Enter** $\boxed{\text{Enter}}$.

> **AGRI-ALERT**
> ▲
> ▼

3. Press **Enter** $\boxed{\text{Enter}}$.

> **RELAYS . . . . (1)**
> **0-10 VOLTS . . . . . (2)**

4. Type 1 to select the relays.

> **SELECT OUTPUT**
> **(1..2) : _**

5. Enter the number of the programmable output and press **Enter**.

The output is assigned to a zone:

If the output is assigned to a zone and is not in an alarm state, the message "AS-SIGNED TO ZONE #ZZ" is displayed and the system returns to the Date/Time display. Otherwise, the following message is displayed.

> **ASSIGNED TO**
> **ZONE #33**

> **OUTPUT IN**
> **ALARM STATE**

> **TO RESTORE. . . . . (↵)**
> **TO QUIT. . . . . . .   (X)**

6. Press **Enter** ⌨ to restore the output to its normal state or **Cancel** ⌨ to quit. If you choose to restore the output, the new state is displayed and the system returns to the Date/Time display. If the device does not respond, the message "DEVICE TROUBLE" is displayed and the system returns to the Date/Time display.

The output is not assigned to a zone:

> **OUTPUT# 1**
> **STATE: DISABLE**

> **TO MODIFY. . . . .   (↵)**
> **TO QUIT. . . . . . .   (X)**

6. Press **Enter** ⌨ to change the state or **Cancel** ⌨ to quit.

> **ENABLE . . . .   (1)**
> **DISABLE . . . .   (2)**

7. Type **1** to enable or **2** to disable the output. The new status is displayed and the system returns to the Date/Time display.

6.4.2 0-10V Output on the Agri-Alert 9600

Definition: The Agri-Alert system includes a 0-10V output. The voltage on the output can be adjusted from 1 to 100%.

Setting:

1. Press the **Output** key ⬚ Output .

```
┌─────────────────────────────────┐
│  SELECT DEVICE                  │
│  (1..99)_ _                     │
└─────────────────────────────────┘
```

2. Type 1 for the Agri-Alert device and press **Enter** ⬚ Enter ↵ .

```
┌─────────────────────────────────┐
│  AGRI-ALERT                     │
│                       ▲         │
│                       ▼         │
└─────────────────────────────────┘
```

3. Press **Enter** ⬚ Enter ↵ .

```
┌─────────────────────────────────┐
│  RELAYS . . . . . . . .  (1)    │
│  0-10 VOLTS . . . . .  (2)      │
└─────────────────────────────────┘
```

4. Type 2 to select the 0-10V output.

```
┌─────────────────────────────────┐
│  OUTPUT                         │
│  22%                            │
└─────────────────────────────────┘
┌─────────────────────────────────┐
│  ENTER VALUE                    │
│  (1%..100%): _ _ _              │
└─────────────────────────────────┘
```

5. Enter the output voltage as a percentage and press **Enter**. The new value is displayed and the system returns to the Date/Time display.

6.4.3 Switched Outputs on Other Devices

Definition: Use the following procedure to modify the state of a programmable output. This procedure is also used to restore an output to its normal state when an alarm has occurred on the zone assigned to it.

1. Press the **Output** key ⬚ Output .

```
┌─────────────────────────────┐
│  SELECT DEVICE              │
│  (1..99)_ _                 │
└─────────────────────────────┘
```

2. Type the device number and press **Enter** [Enter ⏎] .

```
┌─────────────────────────────┐
│  AGRI-ALERT                 │
│                        ▲    │
│                        ▼    │
└─────────────────────────────┘
```

3. The label of the selected device is displayed. If the device displayed is not the correct one, use the arrow keys ▲▼ to scroll the menu to the desired device and press **Enter** [Enter ⏎] . If the device is not correctly installed, the message "DEVICE DO NOT EXIST" is displayed. If the device has no programmable outputs, the message "OUTPUT DO NOT EXIST" is displayed.

```
┌─────────────────────────────┐
│  SELECT OUTPUT              │
│  (1..X) : _                 │
└─────────────────────────────┘
```

4. Enter the number of the programmable output and press **Enter**.

The output is assigned to a zone:

If the output is assigned to a zone and is not in an alarm state, the message "AS-SIGNED TO ZONE #ZZ" is displayed and the system returns to the Date/Time display. Otherwise, the following message is displayed.

```
┌─────────────────────────────┐
│  ASSIGNED TO                │
│  ZONE #33                   │
└─────────────────────────────┘
┌─────────────────────────────┐
│  OUTPUT IN                  │
│  ALARM STATE                │
└─────────────────────────────┘
┌─────────────────────────────┐
│  TO RESTORE. . . . .  (⏎)   │
│  TO QUIT. . . . . . .   (X)  │
└─────────────────────────────┘
```

5. Press **Enter** [Enter ⏎] to restore the output to its normal state or **Cancel** [Cancel X] to quit. If you choose to restore the output, the new state is displayed and the system returns to the Date/Time display. If the device does not respond, the message "DEVICE TROUBLE" is displayed and the system returns to the Date/Time display.

The output is not assigned to a zone:

```
OUTPUT# 1
STATE:  DISABLE
```

```
TO MODIFY. . . . .    (↵)
TO QUIT. . . . . . .    (X)
```

5. Press **Enter** [Enter ↵] to change the state or **Cancel** [Cancel ✗] to quit.

```
ENABLE . . . . . . .    (1)
DISABLE . . . . . . .    (2)
```

6. Type **1** to enable or **2** to disable the output. The new status is displayed and the system returns to the Date/Time display.

6.4.4 Assigning a Programmable Output to a Zone

Definition: By assigning an output to a zone, the user can enable or disable the output according to the alarm state of the zone. Each output can be assigned to one zone only.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ▲▼ to scroll the menu to the PROGRAM AUX'S item.

```
PROGRAM AUX'S
OUTPUT                  ▲▼
```

3. Use the arrow keys ▲▼ to scroll the menu to the OUTPUT item.

```
OUTPUT
ASSIGN                  ▼
```

4. Press **Enter** [Enter ↵] to select the ASSIGN item.

```
ASSIGN OUTPUT TO
ZONE (1..96) : _ _
```

5. Enter the number of the zone and press **Enter**.

```
ZONE#33                 ▲▼
BROILER 2
```

6. The zone label is displayed. If the zone selected is not the right one, use the arrow keys ⬆⬇ to scroll the menu until the correct zone is selected and press **Enter** [Enter].

```
┌──────────────────────────────────┐
│   SELECT DEVICE                  │
│   (1..99): _ _                   │
│                                  │
└──────────────────────────────────┘
```

7. Enter the number of the device and press **Enter**.

```
┌──────────────────────────────────┐
│   KP #02                    ▲     │
│                             ▼     │
│                                  │
└──────────────────────────────────┘
```

8. The device label is displayed. If the device selected is not the right one, use the arrow keys ⬆⬇ to scroll the menu until the correct device is selected and press **Enter** [Enter]. If the device is not correctly installed, the message "DEVICE DO NOT EXIST" is displayed. If the device has no programmable outputs, the message "OUTPUT DO NOT EXIST" is displayed.

```
┌──────────────────────────────────┐
│   SELECT OUTPUT                  │
│   (1..X) : _                     │
│                                  │
└──────────────────────────────────┘
```

9. Enter the number of the output (as needed) and press **Enter**. If the zone is already assigned to an output, the current zone assignment is displayed and the system prompts to modify or to quit. If the output is already assigned to another zone, the system displays the zone number assigned to the output and prompts: "REASSIGN OUTPUT?". Answer YES to proceed with the new assignment or NO to quit.

```
┌──────────────────────────────────┐
│   OUTPUT STATUS                  │
│   ON ALARM                       │
│                                  │
└──────────────────────────────────┘
```

```
┌──────────────────────────────────┐
│   ACTIVATE . . . . . .  (1)      │
│   DEACTIVATE . . . .  (2)        │
│                                  │
└──────────────────────────────────┘
```

10. Type 1 to activate or 2 to deactivate the output in case of an alarm.

```
┌──────────────────────────────────┐
│   TO CONTINUE . . . . .. . . . (1)│
│   TO END . . . . . . . . .. . . . (2)│
│                                  │
└──────────────────────────────────┘
```

11. Type 1 to assign another zone or 2 to return to the PROGRAM AUX'S menu.

6.4.5 Removing a Zone Assignment

Definition: This function is used to remove a zone assignment on an output (see 6.4.4).

Setting:

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM AUX'S item.

```
PROGRAM AUX'S
OUTPUT            ⬆⬇
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the OUTPUT item.

```
OUTPUT
DEASSIGN          ▲
```

4. Use the arrow keys ⬆⬇ to scroll the menu to the DEASSIGN item.

```
SELECT ZONE
(1..96) : _ _
```

5. Enter the number of the zone assigned to an output and press **Enter**.

```
ZONE#33           ⬆⬇
BROILER 2
```

6. The zone label is displayed. If the zone selected is not the right one, use the arrow keys ⬆⬇ to scroll the menu until the correct zone is selected and press **Enter** ⏎ . If no output is assigned to this zone, the system displays the message "NONE".

```
DEASSIGN
OUTPUT?
```

```
YES . . . . . . . . . . .  (1)
NO . . . . . . . . . . .   (2)
```

7. Type 1 to deassign the zone or 2 to leave the assignment.

```
TO CONTINUE . . .. . . . . (1)
TO END . . . . . . . .. . . . . (2)
```

8. Type 1 to deassign another zone or 2 to quit this function.

CHAPTER SEVEN: ALARM PARAMETERS

7.1 ALARM VALIDATION: SUMMARY OF EVENTS

ACTION	RESPONSE	PARAMETERS
1. AN ALARM IS DETECTED.	The system measures the time elapsed since the detection of the alarm until *Recognition Time* is reached.	Recognition Time
2. AN ALARM IS VALIDATED.	When *Recognition Time* has elapsed, A voice message is delivered on-site to report the alarm (unless the system's voice mute is enabled). The system measures the time elapsed since validation until *Call Start Delay* is reached. If a siren is connected to the siren output, it is activated after *Delay Before Siren* has elapsed.	System's Voice Mute Call Start Delay Delay Before Siren
3. DIALOUT BEGINS.	When the *Call Start Delay* has elapsed, each phone number in the dialout sequence is called; each call is separated by the *Time Between Call* . If this is an ordinary phone or cellular number, a voice message is delivered. The number of times the message is delivered depends on the value of *Message Repetitions.* If the system's voice mute function is disabled, this message is also delivered on-site. For a pager number, an alarm code is sent to the pager system. For a beeper number, the beeper unit is called For an alarm report number, the central alarm facility is called and a code is transmitted describing the alarm type (the current temperature can also be transmitted for temperature alarms). Busy numbers are placed at the end of the dialout sequence and redialed according to *Busy Line Tries*. Dialout continues until either the alarm is acknowledged, or the dialout sequence has been executed according to the value of *# of Call Repetitions.*	Time Between Calls Message Repetitions Busy Line Tries # of Call Repetitions Tone Delay Pause Delay Key Dial Speed Report Codes
4. ALARM IS ACKNOWLEDGED.	Dialout sequence is stopped. If an alarm report number is defined, the central alarm facility is called to report the acknowledged alarm even if the dialout sequence has been stopped. If a siren is connected to the siren output, it is stopped. If the alarm was acknowledged over the phone and if *On Site Listening* is enabled, the user can listen to on-site sounds according to the delay defined for on-site listening.	On Site Listening

7.2 SYSTEM ALARMS

Definition: The Agri-Alert system detects certain internal alarm conditions that be-have in the same way as a zone alarm, i.e. the siren is activated, the dialout sequence is launched, etc. These alarms have a fixed recognition time of 2 minutes and a reset time of 45 minutes if no one is present or 2 minutes is someone is present (i.e. the display backlight is turned on – the reset time for low battery and system trouble alarms is always 45 minutes). The table below describes these alarms:

Table 3: System Alarms

ALARM TYPE	MEANING
LOW BATTERY	BATTERY VOLTAGE IS LESS THAN 10.5 V FOR MORE THAN 2 MIN.
LOW SYSTEM TEMPERATURE	SYSTEM TEMPERATURE FALLS BELOW 36°F (2°C) FOR MORE THAN 2 MIN.
HIGH SYSTEM TEMPERATURE	SYSTEM TEMPERATURE RISES ABOVE 167°F (75°C) FOR MORE THAN 2 MIN.
SIREN DEFECT	SIREN WIRE TROUBLE / SIREN MALFUNCTION
12VDC OUTPUT DEFECT	
SBI OUTPUT DEFECT	LOW VOLTAGE DETECTED ON COMMUNICATION BUS
SYSTEM TROUBLE	WIRING TROUBLE ON ZONE INPUTS OR SYSTEM MALFUNCTION

7.2.1 System Temperature Readout

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM SYSTEM item.

```
PROGRAM SYSTEM
TEMPERATURE          ▲▼
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the TEMPERATURE item.

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is TEMPERATURE and press **Enter** [Enter ↵] .

```
SYSTEM TEMP.
74.0ºF
```

5. The system returns to the PROGRAM SYSTEM display.

7.2.2 Backup Battery Voltage Readout

See Appendix B for normal battery life spans.

1. See Section 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM SYSTEM item.

```
PROGRAM SYSTEM
BACKUP BATTERY      ▼
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is BACKUP BATTERY and press **Enter** [Enter ↵] .

```
BACKUP BATTERY
12.3 V
```

4. If the voltage is less than 10 volts, the system displays the warning "LO BATTERY" before displaying the current voltage. The system returns to the PROGRAM SYSTEM display.

7.3 OUTDOOR TEMPERATURE COMPENSATION ON TEMPERATURE ALARMS

Definition: In situations where the outdoor temperature is high, the room temperature will rise as warm air enters the building through ventilation inlets. If the high set point defined above is not adjusted to take this into account, a high temperature alarm may be needlessly set off. To avoid this situation, the system can compensate for high outdoor temperatures when monitoring temperature alarms. When this feature is activated and the outdoor temperature is close to the high set point, the room temperature is monitored with respect to the outdoor temperature. An alarm is set off only if the room temperature rises above the outdoor temperature by a certain value called the offset. In addition to this, the system also uses a critical high temperature as an absolute limit on room temperature. When room temperature reaches the critical high temperature, an alarm is set off. To use this feature, an outdoor temperature probe must be connected to a temperature zone. The probe must have a pale-coloured (white or grey) PVC casing and should be installed near an air intake.

Critical Temperature: The absolute temperature limit for room temperatures. When the room temperature reaches this point, an alarm is set off, no matter what the outdoor temperature is.

Offset: In general, the room temperature is greater than the outdoor temperature by a certain number of degrees, called the offset. The offset determines when an alarm is set off. It is the number of degrees the room temperature can rise above the outdoor temperature without setting off an alarm.

The diagram below shows when the outdoor temperature compensation feature takes effect (if it has been enabled by the user). When the outdoor temperature is greater or equal to the high set point less the offset, the system uses the outdoor temperature as the reference point for monitoring high temperature alarms.

Figure 37: Outdoor Temperature Compensation
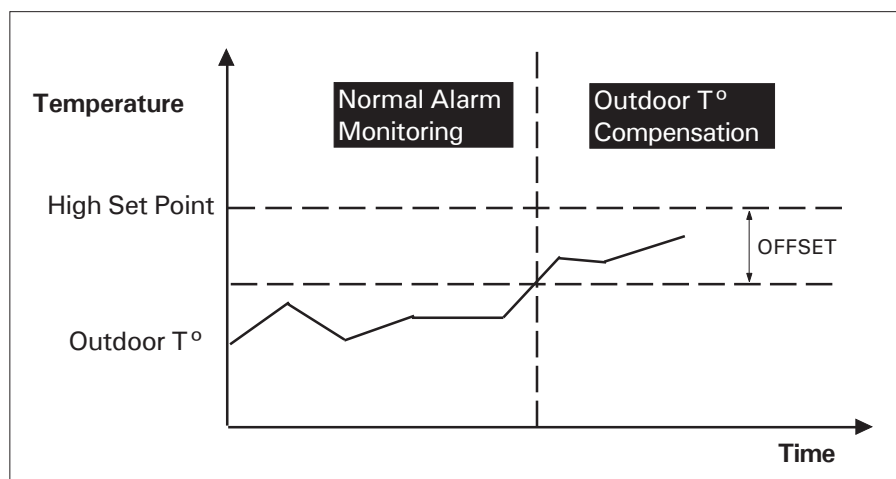
When outdoor temperature compensation is in effect, the system monitors (i) the room temperature with respect to the critical temperature (this check has the highest priority - see fig. 38); (ii) the room temperature with respect to the outdoor temperature (see fig. 39).

Figure 38: Critical Temperature Monitoring
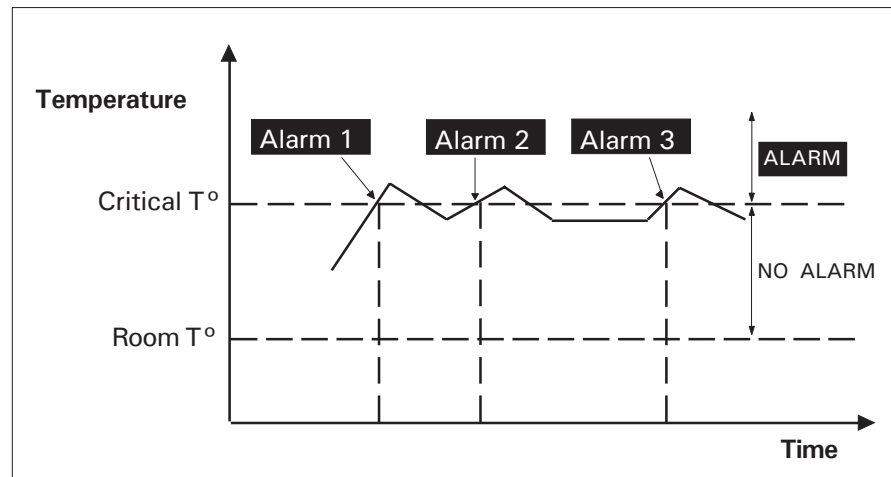
In the second case, the system monitors the difference between the room and outdoor temperatures. When this difference is greater than the offset, an alarm is set off.

Figure 39: Monitoring the Indoor-Outdoor Temperature Difference
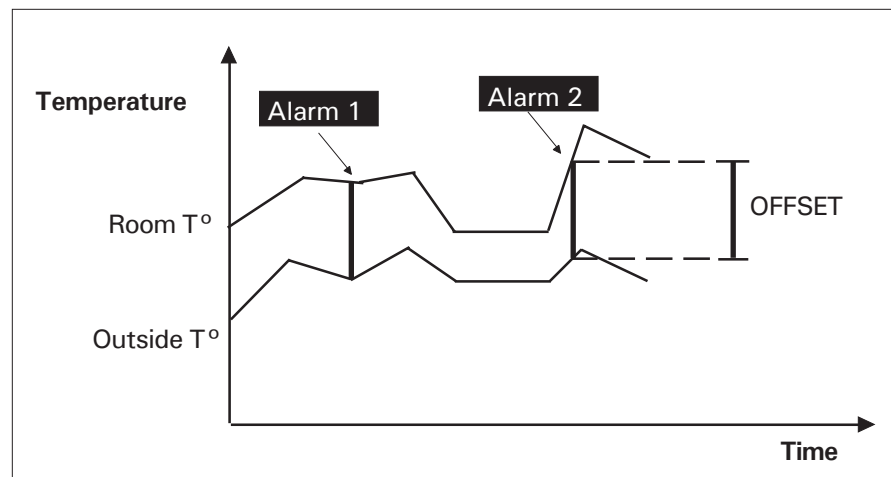
7.3.1 To Make an Outdoor Probe Assignment

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** [Enter ↵] .

```
PROGRAM AUX'S
OUTDOOR PROBE        ▼
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is OUTDOOR PROBE and press **Enter** [Enter ↵] . The system prompts for the outdoor probe number.

```
SELECT PROBE
(1..96): _ _
```

4. Enter the zone number of the outdoor probe and press **Enter**. By default, zone 1 is assigned to the outdoor probe. If a different zone number was previously defined as the outdoor probe, zone 1 will take the default zone settings. The new probe assignment is displayed and the system returns to the PROGRAM AUX'S menu.

```
OUTDOOR PROBE
ZONE #1
```

7.3.2 To Activate / Deactivate the Outdoor Temperature Compensation

1. Press the **Outdoor** $\boxed{\overset{*}{\text{Outdoor}}}$ key. The system displays the current status, outdoor

probe assignment and temperature offset value.

```
┌─────────────────────────────────┐
│   OUTDOOR                        │
│   PARAMETERS                     │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   STATUS                         │
│   DISABLE                        │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   OUTDOOR PROBE                  │
│   ZONE #1                        │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   OFFSET TEMP.                   │
│   5.0°F                          │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   TO MODIFY. . . . .    (↵)      │
│   TO QUIT. . . . . . .   (X)     │
└─────────────────────────────────┘
```

2. Press **Enter** $\boxed{\overset{\text{Enter}}{\text{↵}}}$ to modify the outdoor temperature compensation settings or

Cancel $\boxed{\overset{\text{Cancel}}{\text{X}}}$ to quit. The system displays a menu.

```
┌─────────────────────────────────┐
│   STATUS. . . . . . . .   (1)    │
│   OFFSET TEMP . . .   (2)        │
└─────────────────────────────────┘
```

3. Type **1** to change the status of the outdoor compensation feature.

```
┌─────────────────────────────────┐
│   ENABLE. . . . . . . .   (1)    │
│   DISABLE . . . . . . .   (2)    │
└─────────────────────────────────┘
```

4. Type **1** to enable, or **2** to disable outdoor compensation feature. The new setting
is displayed and the system returns to the Date/Time display.

7.3.3 To Set the Offset Temperature

1. Press the **Outdoor** | * Outdoor | key. The system displays the current status, outdoor

probe assignment and temperature offset value.

```
┌─────────────────────────────┐
│   OUTDOOR                    │
│   PARAMETERS                 │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│   STATUS                     │
│   DISABLED                   │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│   OUTDOOR PROBE              │
│   ZONE #1                    │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│   OFFSET TEMP.               │
│   5.0°F                      │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│   TO MODIFY. . . . .   (↵)   │
│   TO QUIT. . . . . . .   (X) │
└─────────────────────────────┘
```

2. Press **Enter** | Enter ↵ | to modify the outdoor temperature compensation settings or

Cancel | Cancel X | to quit.

```
┌─────────────────────────────┐
│   STATUS. . . .. . . .   (1) │
│   OFFSET TEMP . . .   (2)    │
└─────────────────────────────┘
```

3. Type **2** to change the offset temperature. By default, the offset is 5°F.

```
┌─────────────────────────────┐
│   OFFSET TEMP.               │
│   _ _ _ _  °F                │
└─────────────────────────────┘
```

4. Enter the offset temperature and press **Enter**. It ranges from 0 to 36°F (0 to 20°C)
The system displays the new setting and returns to the Date/Time display.

7.4 ALARM MEMORY

Definition: Each alarm condition detected by the Agri-Alert system is recorded in memory for future reference. The parameters stored in memory are the zone number, the alarm type, the time, the date, the user who acknowledged the alarm (if a user is defined) and the time and date of acknowledgment. The system stores only the last fifty alarms in memory. It should be noted that if the zones are reconfigured at any time, the alarm memory recorded up to that time is erased.

If the password feature is enabled, the system requires a password before acknowledging an alarm from the keypad (acknowledging over the phone always requires a password). This password will appear in the alarm memory listing only if the master password is currently logged onto the system. If a user is logged on, the system will not identify the password that acknowledged the alarm. If, at the time the alarm was acknowledged, the password feature was not enabled, the alarm memory listing will not contain the password that acknowledged the alarm.

To access alarm memory, press the Alarm Memory ⌸ key. If no alarm events are presently stored in memory, the system returns the message: **NONE**. To step to the next alarm entry while the current entry is still scrolling on the display, press the right-arrow key ▶.

Examples: In the first example, the password of the user that acknowledged the alarm is not identified. This means **either** no password was entered when the alarm was acknowledged **or** the current password is not the master password.

> **SIREN TROUBLE**
> **AT 12:47 PM ON AUG 14 2000**
> **ACK AT 01:16 PM ON AUG14 2000**

In the second example, the password is identified. This means that a password was entered when the alarm was acknowledged **and** the current password is the master password.

> **ZONE #1**
> **HI CURRENT AT 12:47 PM ON AUG 14 2000**
> **ACK BY 1234 AT 01:16 PM ON AUG14 2000**

7.5 ZONE STATUS DISPLAY

Definition: You can display zone status information at any time by using the **Zone** key. This key also allows you to modify certain zone parameters such as set points without having to reconfigure the zone. The current zone definition and data readings are displayed along with the zone status. The information displayed depends on the type of zone:

1. Dry contact zones: OPEN / CLOSE

2. Temperature zones: temperature reading, set points and critical temp.

3. 4-20mA zones: current reading and set points

4. AC current sensor zones :   current reading and set points

5. 0-5V zones: voltage reading and set points

When using the outdoor temperature compensation feature, the zone assigned to the outdoor probe is identified by the message OUTDOOR PROBE (See Section 7.3). The different zone states are summarized below:

> 1. **DISABLED**: When a zone is first configured, it is in disabled state, until the user activates it using the Activate key. When a zone is disabled, no alarms are detected on the zone input.

> 2. **ACTIVATED**: Alarm detection is enabled on the zone input. To change the state to BYPASSED, use the Bypass/Activate key.

> 3. **BYPASSED**: No alarm detection is performed on the zone input. To change the state to ACTIVATED, use the Bypass/Activate key.

> 4. **ALARM**: The zone is in alarm.

Example: The example that follows shows the display sequence for a temperature zone. This is the most complicated sequence. The other zone types are treated in a similar manner.

1. Press the **Zone** key | Zone | .

> ```
> ZONE
> DISPLAY/MODIFY ▼
> ```

2. Press the Enter key | Enter ⏎ | to select the DISPLAY/MODIFY option.

> ```
> SELECT ZONE
> (1 .. 96): _ _
> ```

3. Enter the number of the zone. The state of the zone is displayed, followed by the status.

```
┌─────────────────────────────────┐
│  ZONE #1              ▲          │
│  BARN #2              ▼          │
└─────────────────────────────────┘
```

4. The label of the selected zone is displayed. If the zone displayed is not the correct

one, use the arrow keys ⬆⬇ to scroll the menu to the desired zone and press

Enter Enter⤶ .

```
┌─────────────────────────────────┐
│  ZONE # 1                        │
│  75.0°F                          │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  ZONE # 1 CLR. (1)               │
│  MIN:  75.0°F  MAX: 75.2°F       │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  ZONE # 1                        │
│  ACTIVATED                       │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  SET POINTS                      │
│  LO:  55.0 °F,      HI:  85.0 °F │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  CRITICAL TEMP.                  │
│  95 °F                           │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TEMP. CURVE                     │
│  ENABLE                          │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TEMP. CURVE                     │
│  DAY : 17                        │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  LO OFFSET                       │
│  15.0 °F                         │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  HI OFFSET                       │
│  15.0 °F                         │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  RECOGNITION TIME                │
│  00:04:59                        │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│  TO MODIFY. . . . .   (⤶)        │
│  TO QUIT. . . . . . .  (X)       │
└─────────────────────────────────┘
```

☞ The temperature curve status is displayed only if the zone has been configured with a temperature curve. If the curve is currently activated, the offset values are also displayed and the set points displayed are calculated according to the curve settings.

The critical temperature is displayed only if the outdoor temperature compensation feature is activated (see section 7.3).

☞ You can reset the minimum and maximum temperature values displayed by pressing **1**   while the minimum and maximum values are displayed.

5.   Press **Enter** [Enter ↵] to modify the current set points or **Cancel** [Cancel ✗] to quit.

> **ZONE #1**
> **SET POINTS**   ▼

6. User-adjustable parameters are displayed in a scrolling menu. Use the arrow keys

▲▼ to scroll the menu to the desired parameter and press **Enter** [Enter ↵] . **Press**
Cancel [Cancel ✗]   to quit

7.5.1 Adjusting Set Points

1. Follow the procedure above (7.5) and press **Enter** [Enter ↵] at SET POINTS.

> **SET POINTS**
> **LO: 55.0 ºF,   HI: 85.0 ºF**

> **LO SET POINT**
> **_ _ _ _ _ ºF**

2. This is the lower value of the normal temperature range. It ranges from -40 ºF to 149 ºF (-40 ºC to 65 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the low set point and press **Enter**. To enter a negative value, use the [+/-] key, either before or after the digits.

> **HI SET POINT**
> **_ _ _ _ _ ºF**

3. This is the upper value of the normal temperature range. It ranges from the low set point to 149 ºF (65 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the high

set point and press **Enter**. To enter a negative value, use the $\boxed{+/-}$ key, either before or after the digits. The high set point must be greater than the low set point.

☞ The following parameter can be accessed only if the outdoor temperature compensation feature is activated (see Section 7.3).

> **CRITICAL TEMP.**
> _ _ _ _ _ **ºF**

4. The critical temperature is displayed only if the outdoor temperature compensation feature is activated (see Section 7.3). It is the absolute temperature limit for room temperatures. It is used in conjunction with the outdoor temperature compensation feature. When the room temperature reaches this point and the outdoor temperature compensation feature is enabled, an alarm is set off, no matter what the outdoor temperature is. It ranges from the high set point to 149 ºF (65 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the critical temperature and press **Enter**. To enter a negative value, use the $\boxed{+/-}$ key, either before or after the digits.

7.5.2 Adjusting Curve Offset Values

1. Follow the procedure above (7.5) and press **Enter** $\boxed{\text{Enter}}$ at OFFSETS.

☞ The following parameters can only be accessed if the zone has been configured with a temperature curve.

> **LO OFFSET**
> **15.0 ºF**

> **LO OFFSET**
> _ _ _ _ _ **ºF**

2. The low offset is the number of degrees below the normal temperature value (as defined by the curve) at which a temperature alarm is declared. It varies from 1 ºF to 20 ºF (0.6 ºC to 11.1 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the low offset and press **Enter** .

```
┌─────────────────────────────────┐
│   HIGH OFFSET                   │
│    15 ºF                        │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│   HIGH OFFSET                   │
│      _ _ _ _ ºF                 │
└─────────────────────────────────┘
```

3. The high offset is the number of degrees above the normal temperature value (as defined by the curve) at which a temperature alarm is declared. It varies from 1 ºF to 20 ºF (0.6 ºC to 11.1 ºC) with an accuracy of 0.1 ºF (0.1 ºC). Enter the high offset and press **Enter**.

7.5.3 Adjusting Curve Points

1. Follow the procedure above (7.5) and press **Enter** [Enter ◄┘] at SET POINTS.

☞ The following parameters can only be accessed if the zone has been configured with a temperature curve.

```
┌─────────────────────────────────┐
│   POINT #1              ▼        │
│   DAY 1,      50.0ºF            │
└─────────────────────────────────┘
```

2. Use the arrow keys ⏶⏷ to select the point to edit (1 to 10) and press **Enter** [Enter ◄┘].

☞ Note that the first curve point is always at day 1.

```
┌─────────────────────────────────┐
│   POINT #2              ▲▼       │
│   DAY : _ _ _                   │
└─────────────────────────────────┘
```

3. Enter the day number for the point selected and press **Enter** [Enter ◄┘].

```
┌─────────────────────────────────┐
│   POINT #2              ▲▼       │
│   TEMP.    _ _ _ _ _ ºF         │
└─────────────────────────────────┘
```

4. Enter the corresponding temperature value for that day and press **Enter** [Enter ◄┘].

```
┌─────────────────────────────────┐
│   POINT #2          ▲▼           │
│   DAY 10       75 . 0 ºF         │
└─────────────────────────────────┘
```

5. Select another point to edit using the arrow keys. At least two points must be

defined in order to use the curve. Note that the curve must be activated in a separate

sequence (see Section 7.5.4). To finish programming the curve, press **Cancel** [Cancel X].

7.5.4 Enabling / Disabling Temperature Curve

Definition: the following procedure shows how to activate or deactivate the temperature curve and also demonstrates how to set the starting day of the curve (if applicable). In addition, it is also possible to copy a the curve status and the curve starting day of a zone (if applicable) and to paste it on another zone of the same type. This avoids repeating the same sequence several times when programming similar zones.

1. Follow the procedure above (7.5) and press **Enter** [Enter ↵] at STATUS CURVE.

```
 TEMP. CURVE
 STATUS:  ENABLED
```

```
 ENABLE. . . . . . .      (1)
 DISABLE. . . . . . .     (2)
```

2. Type **1** to enable or **2** to disable the temperature curve for this zone.

```
 START ON
 DAY : _ _ _
```

3. If you have chosen to enable the curve, you can adjust the start day for the curve. Enter the start day and press Enter [Enter ↵].

```
 COPY/PASTE . . . . . .      (1)
 TO EXIT. . . . .  . . . . .      (2)
```

4. Type 1 to copy/paste the curve status and the starting day (if applicable) of the selected zone on another zone. Type 2 to exit this function.

```
 COPY CURVE
 STATUS ZONE #XX
```

```
 PASTE ON
 ZONE(S): _ _ _ _ _
```

5. Enter the zone(s) on which the curve status and starting day (if applicable) will be pasted on, then press **Enter**. To paste these parameters on more than one zone, you can enter a range: **10-20**, for example, using the [+/-] key to enter the dash.

7.5.5 Adjusting the Recognition Time

Definition: The recognition time is the time an alarm input must be active before it constitutes a valid alarm condition. It is used to configure all alarm inputs except burglar inputs.

1. Follow the procedure above (7.5) and press **Enter** [Enter ↵] at REC. TIME.

```
RECOGNITION TIME
 _ _ :_ _ : _ _
```

2. To enter the recognition time, enter the hours; press **Enter.** Enter the minutes; press **Enter.** Enter the seconds; press **Enter**. Ranges from 0h:0m:0s to 59h:59m:59s.

7.5.6 Copying Zone Set Points to Another Zone

Definition: The user can copy the high set point, the low set point, the critical temperature and the curve points from an existing zone to another zone of the same type (or to several zones). This avoids repeating the same sequence several times.

Note that the curve parameters can only be copied/pasted if the operation is performed from the AA-9600 unit. If the operation is made from a keypad module, only the set points and the critical temperature will be copied/pasted.

Setting:

1. Follow the procedure above (7.5) and press **Enter** [Enter ↵] at COPY/PASTE. The zone selected on section 7.5 is the reference zone from which the set points will be copied.

```
COPY SET POINTS
ZONE # 3
```

```
PASTE TO
ZONE(S): _ _ _ _ _
```

2. Enter the zone(s) on which the set points of the reference zone will be pasted on and press **Enter**. To paste the set points to more than one zone at once, you can enter a range: **10-20**, for example, using the [+/-] key to enter the dash.

```
ADD ZONE. . . . . . . . . (1)
TO CONTINUE . . . . .. . . (2)
```

3. Type **1** to paste the set points of the reference zone to another zone using the same model; type **2** to complete the operation. Press **Cancel** to quit this function.

7.5.7 Resetting Minimum / Maximum Values

Definition: This function allows to instantaneously reset the minimum and maximum temperature readings of the temperature zones.

1. Press the **Zone** key | Zone | .

> ```
> ZONE
> CLEAR MIN/MAX  ▲
> ```

2. Press the down-arrow ⬇ key twice to select the CLEAR MIN/MAX menu and press **Enter** | Enter ↵ | .

> ```
> CLEAR ALL. . . . .   (↵)
> TO QUIT. . . . . . .   (X)
> ```

3. Press **Enter** | Enter ↵ | to clear all minimum and maximum values for all zones or press **Cancel** key | Cancel X | to exit this function.

7.6 PARTITIONS

Definition: Zones can be grouped into partitions, relating alarm systems located in the same area. This makes it easy to activate or bypass several zones at once, if they are physically located in the same area or if they are logically connected together. Figure 40 below gives an example of this. If, for example, the animals in Building 2 are evacuated, the alarm systems for the entire building can be turned off at once. Up to 16 different partitions can be programmed into the system. If changes are made to a partition, all zones associated with the partition are bypassed. Note that burglar zones cannot be included in a partition. If a zone belonging to a partition is redefined as a burglar zone, it will be removed from the partition.

Figure 40: Example of Partitioning
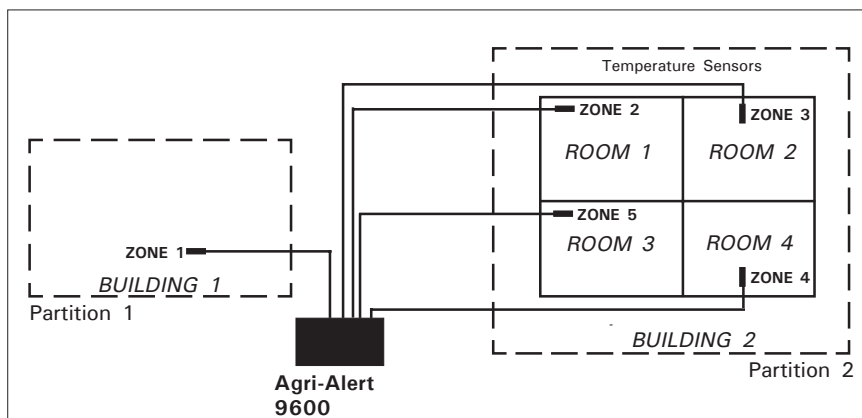
Setting:

1. Press the **Partitions** key ⌷Partition⌷. The partitions currently stored in memory are dis-

played. To stop the display, press the **Cancel** key ⌷Cancel X⌷.

> **ENTER PARTITION**
> **(1 .. 16):** _ _

2. Type the number of the partition to modify and press **Enter**.

> **TO MODIFY. . . . .   (↵)**
> **TO QUIT. . . . . . .   (X)**

3. Press **Enter** ⌷Enter ↵⌷ to modify.

7.6.1 Adding a zone

1. Follow the procedure above (7.6) to select a partition.

```
PARTITION #1
ADD ZONE          ▼
```

2. The different options are presented in a scrolling menu. Use the up and down arrow keys ▲▼ to select ADD ZONE and press **Enter**.

```
PARTION #1
ADD
ZONE: _ _ _ _ _
```

3. The zones currently included in the partition are displayed on the first line. Enter the number of the zone to add to the partition and press **Enter**. To select more than one zone at once, you can enter a range: **10-20**, for example, using the $\boxed{+/-}$ key to enter the dash. If you choose a zone that is already assigned to another partition, the system responds with the message: **ZONE IS ALREADY SELECTED**. The system displays the new partition definition.

```
PARTITION #1
ZONE #1, 2, 3, 4
```

```
TO CONTINUE. . . .(1)
TO END . . . . . . . (2)
```

4. Type **1** to make more changes. Type **2** to exit this function; the system returns to the Date/Time display.

7.6.2 Deleting a zone

1. Follow the procedure above (7.6) to select a partition.

```
PARTITION #1
DEL  ZONE        ▲▼
```

2. The different options are presented in a scrolling menu. Use the up and down arrow keys ⬆⬇ to select DEL ZONE and press **Enter**.

```
#1) 1, 2, 3, 4
DEL ZONE: _ _
```

3. Enter the number of the zone to delete from the partition and press **Enter**. The system displays the new partition definition.

```
PARTITION #1
ZONE #1, 2, 3
```

```
TO CONTINUE. . . .(1)
TO END . . . . . . . .(2)
```

4. Type **1** to make more changes. Type **2** to exit this function; the system returns to the Date/Time display.

7.6.3 Deleting a partition

1. Follow the procedure above (7.6) to select a partition.

```
PARTITION #1
DEL  PARTITION      ▲
```

2. The different options are presented in a scrolling menu. Use the up and down arrow keys ⬆⬇ to select DEL PARTITION and press **Enter**. The system displays the message **PARTITION DELETED**.

```
TO CONTINUE. . . .(1)
TO END . . . . . . . .(2)
```

3. Type **1** to make more changes. Type **2** to exit this function; the system returns to the Date/Time display.

7.7 BYPASS / ACTIVATE FUNCTION

Definition: The Agri-Alert system can activate or bypass individual zones and partitions. When a zone is bypassed, no alarm detection is performed on the zone input. When a zone becomes active, the system monitors the alarm input connected to the zone. When an alarm occurs, the relevant data are recorded in alarm memory and the dialout sequence is launched.

Note that burglar zones cannot be activated in this way although they can be bypassed one zone at a time. These zones are activated with the dot key $\boxed{\bullet}$ and a password.

7.7.1 Changing Zone Status

1. Press the **Bypass / Activate** $\boxed{\text{Bypass/ Activate}}$ key.

```
ZONE . . . . . . . . .   (1)
PARTITION . . . . .   (2)
```

2. Type **1** to change the status of a zone;

```
ENTER ZONE
(1 .. 96): _ _
```

3. Type the number of the zone and press **Enter**. If the zone is not properly configured, the system displays the message: **INCOMPLETE DATA**.

```
ACTIVATE . . . . . .  (1)
BYPASS . . . . . . . . (2)
```

5. Type **1** to activate, or **2** to bypass the zone. The new state of the zone is displayed and the system returns to the Date/Time display.

7.7.2 Changing Partition Status

1. Press the **Bypass / Activate** [Bypass/Activate] key.

```
ZONE . . . . . . . . .   (1)
PARTITION . . . . .   (2)
```

2. Type **2** to change the status of a partition.

```
ENTER PARTITION
(1 .. 16): _ _
```

3. Type the number of the partition and press **Enter**. If the partition does not exist, the system responds with the message: **PARTITION NONE**.

```
ACTIVATE . . . . . .   (1)
BYPASS . . . . . . .   (2)
```

4. Type **1** to activate or **2** to bypass the partition. The new status of the partition is displayed and the system returns to the Date/Time display.

7.7.3 Viewing Bypassed Zones

1. Press the **Zone** key [Zone].

```
ZONE
DISPLAY BYPASS   ⬍
```

```
BYPASSED
ZONE # 4,8
```

2. Press down-arrow key and press Enter to select [Enter] to select the DISPLAY BY-

PASS option. The bypassed zones are displayed.

7.8 ENTRY DELAY

Definition: The time needed to disarm the burglar zones when entering the site before an alarm is set off. This applies to all burglar zones and ranges from 0 to 5 minutes, 59 seconds. The default is 30 seconds. The entry delay countdown begins when an alarm is detected in a burglar zone with an entry delay.

Setting:

1. Press the **Entry/Exit Delay** key [6 MNO Entry/Exit Delay] .

```
ENTRY DELAY . . .  (1)
EXIT DELAY . . . . .  (2)
```

2. Type 1 to adjust the entry delay.

```
ENTRY DELAY
0 MIN, 30 SEC
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

3. Press **Enter** [Enter ↵] to adjust the entry delay or **Cancel** [Cancel X] to quit.

```
ENTER NEW DELAY
 _ MIN : _ _ SEC
```

4. Enter the new delay and press **Enter**. It ranges from 0m:0s to 5m:59s. The system displays the new setting and returns to the Date/Time display.

7.9 EXIT DELAY

Definition: The time needed to exit the site before the system starts monitoring the alarm inputs. This applies only to burglar zone and is common to all zones. It ranges from 0 to 5 minutes, 0 to 59 seconds. The default is 1 minute.

Setting:

1. Press the **Entry/Exit Delay** key .

> **ENTRY DELAY . . . (1)**
> **EXIT DELAY . . . . . (2)**

2. Type **2** to adjust the exit delay.

> **EXIT DELAY**
> **1 MIN, 00 SEC**

> **TO MODIFY. . . . . (↵)**
> **TO QUIT. . . . . . . (X)**

3. Press **Enter** to adjust the exit delay or **Cancel** to quit.

> **ENTER NEW DELAY**
> **_ MIN : _ _ SEC**

4. Enter the new delay and press **Enter**. It ranges from 0m:0s to 5m:59s. The system displays the new setting and returns to the Date/Time display.

7.10 FORCE ARMING

Definition: Normally, you cannot arm the system when alarm conditions are present on one or more zones. However, if the "Force Arming" option has been enabled by the installer, the user can arm the system even if some zones have alarms. This applies only to delay burglar zones, however. An instant burglar zone with an alarm condition would only set off a new alarm as soon as the system were armed. By default, force arming is disabled.

Setting:

1. See 3.1 to access the system installation menus.

2. Use the arrow keys ⬆⬇ to scroll the menu to the PROGRAM SYSTEM option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│   PROGRAM SYSTEM                │
│   FORCE ARMING      ⬍           │
└─────────────────────────────────┘
```

3. Use the arrow keys ⬆⬇ to scroll the menu to the FORCE ARMING option and press **Enter** [Enter ↵].

```
┌─────────────────────────────────┐
│   FORCE ARMING                  │
│   STATUS: ENABLE                │
└─────────────────────────────────┘
┌─────────────────────────────────┐
│   TO MODIFY. . . . .   (↵)      │
│   TO QUIT. . . . . . .   (X)    │
└─────────────────────────────────┘
```

4. Press **Enter** [Valider ↵] to modify the current status or **Cancel** [Annuler ✗] to exit this function.

```
┌─────────────────────────────────┐
│   ENABLE . . . . . . .   (1)    │
│   DISABLE . . . . . . .   (2)   │
└─────────────────────────────────┘
```

5. Type 1 to enable or 2 to disable force arming. The new status is displayed and the system returns to the PROGRAM SYSTEM menu.

7.11 SIREN PARAMETERS

7.11.1 Siren Delay

Definition: The system activates the siren when an alarm condition is detected and if the siren is enabled for the zone in alarm. The siren is activated after a user-defined delay has elapsed. The value ranges from 0 to 20 minutes. The default is 0 minutes. This parameter applies to all zones.

Setting:

1. Press the **Siren Delay** key $\boxed{\begin{array}{c} 4_{\text{GHI}} \\ \text{Siren delay} \end{array}}$.

```
┌────────────────────────────────┐
│  DELAY. . . . . . . . .  (1)    │
│  TIME ON . . . . . . .   (2)    │
└────────────────────────────────┘
```

2. Type **1** to adjust the delay.

```
┌────────────────────────────────┐
│  1 MIN                         │
│                                │
│                                │
└────────────────────────────────┘
```

```
┌────────────────────────────────┐
│  TO MODIFY. . . . .   (↵)       │
│  TO QUIT. . . . . . .   (X)     │
└────────────────────────────────┘
```

3. The current delay is displayed. Press **Enter** $\boxed{\begin{array}{c}\text{Enter}\\ ↵\end{array}}$ to modify the value or **Cancel** $\boxed{\begin{array}{c}\text{Cancel}\\ \times\end{array}}$ to quit.

```
┌────────────────────────────────┐
│  ENTER NEW DELAY               │
│    _ _   MIN                   │
└────────────────────────────────┘
```

4. Enter the new delay value and press **Enter** $\boxed{\begin{array}{c}\text{Enter}\\ ↵\end{array}}$. It ranges from 0 to 20 minutes.

The new value is displayed and the system returns to the Date/Time display.

7.11.2 Siren Time On

Definition: The system activates the siren when an alarm condition is detected and if the siren is enabled for the zone in alarm. The siren duration is the time the siren will sound. The value ranges from 1 to 20 minutes. The default is 5 minutes. This parameter applies to all zones.

Setting:

1. Press the **Siren Delay** key $\boxed{\begin{array}{c} 4_{\text{GHI}} \\ \text{Siren delay} \end{array}}$.

```
DELAY. . . . . . . .   (1)
TIME ON . . . . . . .   (2)
```

2. Type **2** to adjust the time on.

```
1 MIN
```

```
TO MODIFY. . . . .   (↵)
TO QUIT. . . . . . .   (X)
```

3. The current time on is displayed. Press **Enter** $\boxed{\begin{array}{c}\text{Enter}\\ \text{↵}\end{array}}$ to modify the value or **Cancel** $\boxed{\begin{array}{c}\text{Cancel}\\ \times\end{array}}$ to quit.

```
ENTER NEW DELAY
_ _   MIN
```

4. Enter the new time on value and press **Enter**. It ranges from 1 to 20 minutes. The new value is displayed and the system returns to the Date/Time display.

7.11.3 Siren Monitoring

Definition: This function sets off an alarm if the siren connection is cut. By default, this feature is enabled.

Setting:

1. See Section 3.1 to access the system installation menus.

2. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is PROGRAM AUX'S and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│   PROGRAM AUX'S                 │
│   MONITORING          ▲         │
│                       ▼         │
└─────────────────────────────────┘
```

3. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is MONITORING and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│   MONITORING                    │
│   SIREN            ▼            │
│                                 │
└─────────────────────────────────┘
```

4. Using the up and down-arrow keys ⬆⬇ , scroll the menu until the item displayed is SIREN and press **Enter** [Enter ↵] .

```
┌─────────────────────────────────┐
│   MONITORING                    │
│   STATUS: ENABLE                │
│                                 │
└─────────────────────────────────┘
```
```
┌─────────────────────────────────┐
│   TO MODIFY. . . . .   (↵)      │
│   TO QUIT. . . . . . .   (X)    │
│                                 │
└─────────────────────────────────┘
```

5. The current status is displayed. Press **Enter** [Enter ↵] to modify the value or **Cancel** [Cancel ✕] to quit.

```
┌─────────────────────────────────┐
│   ENABLE . . . . . . . .  (1)   │
│   DISABLE . . . . . . .   (2)   │
│                                 │
└─────────────────────────────────┘
```

6. Type **1** to enable or **2** to disable siren monitoring. The system returns to the PROGRAM AUX'S menu.

TROUBLESHOOTING GUIDE

PROBLEM	SOLUTIONS
The SIREN does not function.	1- Check if load exceeds circuit capacity. Remember that the reset time is 45 minutes if no one is present and 2 minutes if someone is present. 2- If no siren is connected to the siren terminals, a resistor must be connected in its place (1.5kΩ, ½ W). See the installation manual (section 1.4.3.1). 3- If the siren impedance is too high, add a 1,5K Ω, ½W resistor to the siren circuit, as close to the siren as possible. 4- The siren wire or siren may be defective. 5- If the problem persists, contact your dealer.
The TROUBLE LED turns on.	1- Press the TROUBLE key for more information. Fix the problem if possible and choose ERASE in the menu to reset the trouble flag. 2- If the problem persists, contact your dealer.
The 16 VAC LED turns on and electrical power is OK.	1- Check if load exceeds circuit capacity. 2- Check the wall transformer and wiring. 3- Use a voltmeter to check voltage at the 16VAC input terminals (16VAC minimum). 4- If the problem persists, contact your dealer.

PROBLEM	SOLUTIONS
The LOW BATTERY LED turns on and electrical power is OK.	1- Remember that the reset time is 45 minutes; the counter is started only once the display backlight turns off. 2- Check battery voltage by pressing the System key and selecting BACKUP BATTERY from the Program System menu. Normal voltage should read from 12V to 14V. 3- Check that the load does not exceed the capacity of the circuit. 4- Check the transformer and wiring. 5- Use a voltmeter to check voltage at the 16VAC input terminals (16VAC minimum). 6- Check the wiring to the battery. 7- If the problem persists, contact your dealer.
System goes into Standby mode by itself.	Disable standby mode (using the On/Off key). Check battery voltage by pressing the System key and selecting BACKUP BATTERY option from the Program System menu. Normal voltage should read from 12V to 14V. If the voltage is low, follow instructions above for power failure led.
The message DISTURBED LINE is displayed when the system dials out.	1- Check telephone line wiring. 2- Enable line seizure even if this feature is not used and the connections have not been made. This will disable the off-hook moniter test. Press the System key then select the Line Seizure option from the Program Dialing menu. 3- If the problem persists, unplug the telephone jack from the AA9600 and contact you dealer.

APPENDIX A: MAXIMUM WIRE LENGTHS

WIRE TYPE	TEMPERATURE PROBE	OTHER PROBES	SIREN / 12VDC / 0-10V / MICROPHONE
#16 AWG	250 m (820')	2000 m (6560')	50 m (164')
#18 AWG	125 m (410')	1300 m (4265')	30 m (98')
#20 AWG	62 m (205')	800 m (2624')	N.A.
#22 AWG	31 m (102')	500 m (1640')	N.A.

APPENDIX B: BACKUP BATTERY LIFE SPAN

CURRENT (mA)	TEMPERATURE		
	0°C / 32°F	20°C / 68°F	40°C / 104°F
350mA minimum charge SBI ,12VDC,SIREN OUTPUTS NOT USED		32 hours	32 hours
3500mA maximum charge SBI - 2A 12VDC - 750mA SIREN - 1A		20 min	20 min

APPENDIX C: COMMUNICATION CABLE GAUGE AND MAXIMUM LENGTH RECOMMENDATIONS

On the following pages, maximum distances are given for connecting TP-800 and KPB-400 devices to the AA-9600. Note that each device has an auxiliary load. For example, if you connect 2 TP-800 devices and 2 KPB-400 devices to the Agri-Alert, the maximum length for a 22 AWG wire is 1468 feet where each TP-800 and KPB-400 has an auxiliary load of 20mA.

The maximum resistance in Ohms is given by the formula: $R_{max} = 196 / P_{load}$ where P_{load} is the load power rating in Watts.

The following chart gives the Ohms ratings for different wire gauges:

22 AWG	32.4 Ω/1000ft
20 AWG	20.2 Ω/1000ft
18 AWG	12.78 Ω/1000ft
16 AWG	8.04 Ω/1000ft

22 AWG GAUGE - MAXIMUM DISTANCE FROM AA-9600 IN FEET						
# OF TP-800's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800	10000	9452	7756	6575	5707	5041
2 TP-800	6049	4726	3878	3288	2853	2521
3 TP-800	4033	3151	2585	2192	1902	1680
4 TP-800	3025	2363	1939	1644	1427	1260
5 TP-800	2420	1890	1551	1315	1141	1008
6 TP-800	2016	1575	1293	1096	951	840
7 TP-800	1728	1350	1108	939	815	720
8 TP-800	1512	1182	969	822	713	630
9 TP-800	1344	1050	862	731	634	560
10 TP-800	1210	945	776	658	571	504

# OF KPB-400's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 KPB-400	6049	5306	4726	4260	3878	3558
2 KPB-400	3025	2653	2363	2130	1939	1779
3 KPB-400	2016	1769	1575	1420	1293	1186
4 KPB-400	1512	1327	1182	1065	969	890
5 KPB-400	1210	1061	945	852	776	712
6 KPB-400	1008	884	788	710	646	593
7 KPB-400	864	758	675	609	554	508
8 KPB-400	756	663	591	533	485	445
9 KPB-400	672	590	525	473	431	395
10 KPB-400	605	531	473	426	388	356

# OF KPB-400's AND TP-800's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800 / 1 KPB-400	4033	3399	2937	2585	2309	2086
2 TP-800 / 2 KPB-400	2016	1699	1468	1293	1154	1043
3 TP-800 / 3 KPB-400	1344	1133	979	862	770	695
4 TP-800 / 4 KPB-400	1008	850	734	646	577	521
5 TP-800 / 5 KPB-400	807	680	587	517	462	417
6 TP-800 / 6 KPB-400	672	566	489	431	385	348
7 TP-800 / 7 KPB-400	576	486	420	369	330	298
8 TP-800 / 8 KPB-400	504	425	367	323	289	261
9 TP-800 / 9 KPB-400	448	378	326	287	257	232
10 TP-800 / 10 KPB-400	403	340	294	259	231	209

20 AWG GAUGE - MAXIMUM DISTANCE FROM AA-9600 IN FEET						
# OF TP-800	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800	10000	10000	10000	10000	9154	8086
2 TP-800	9703	7580	6220	5273	4577	4043
3 TP-800	6469	5054	4147	3516	3051	2695
4 TP-800	4851	3790	3110	2637	2288	2021
5 TP-800	3881	3032	2488	2109	1831	1617
6 TP-800	3234	2527	2073	1758	1526	1348
7 TP-800	2772	2166	1777	1507	1308	1155
8 TP-800	2426	1895	1555	1318	1144	1011
9 TP-800	2156	1685	1382	1172	1017	898
10 TP-800	1941	1516	1244	1055	915	809
# OF KPB-400	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 KPB-400	9703	8511	7580	6833	6220	5708
2 KPB-400	4851	4256	3790	3417	3110	2854
3 KPB-400	3234	2837	2527	2278	2073	1903
4 KPB-400	2426	2128	1895	1708	1555	1427
5 KPB-400	1941	1702	1516	1367	1244	1142
6 KPB-400	1617	1419	1263	1139	1037	951
7 KPB-400	1386	1216	1083	976	889	815
8 KPB-400	1213	1064	948	854	777	713
9 KPB-400	1078	946	842	759	691	634
10 KPB-400	970	851	758	683	622	571
# OF KPB-400 AND TP-800	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800 / 1 KPB-400	6469	5451	4710	4147	3703	3346
2 TP-800 / 2 KPB-400	3234	2726	2355	2073	1852	1673
3 TP-800 / 3 KPB-400	2156	1817	1570	1382	1234	1115
4 TP-800 / 4 KPB-400	1617	1363	1178	1037	926	836
5 TP-800 / 5 KPB-400	1294	1090	942	829	741	669
6 TP-800 / 6 KPB-400	1078	909	785	691	617	558
7 TP-800 / 7 KPB-400	924	779	673	592	529	478
8 TP-800 / 8 KPB-400	809	681	589	518	463	418
9 TP-800 / 9 KPB-400	719	606	523	461	411	372
10 TP-800 / 10 KPB-400	647	545	471	415	370	335

18 AWG GAUGE - MAXIMUM DISTANCE FROM AA-9600 IN FEET						
# OF TP-800's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800	10000	10000	10000	10000	10000	10000
2 TP-800	10000	10000	9831	8335	7234	6390
3 TP-800	10224	7988	6554	5557	4823	4260
4 TP-800	7668	5991	4916	4168	3617	3195
5 TP-800	6135	4793	3932	3334	2894	2556
6 TP-800	5112	3994	3277	2778	2411	2130
7 TP-800	4382	3423	2809	2381	2067	1826
8 TP-800	3834	2995	2458	2084	1809	1598
9 TP-800	3408	2663	2185	1852	1608	1420
10 TP-800	3067	2396	1966	1667	1447	1278
# OF KPB-400's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 KPB-400	10000	10000	10000	10000	9831	9021
2 KPB-400	7668	6727	5991	5400	4916	4511
3 KPB-400	5112	4484	3994	3600	3277	3007
4 KPB-400	3834	3363	2995	2700	2458	2255
5 KPB-400	3067	2691	2396	2160	1966	1804
6 KPB-400	2556	2242	1997	1800	1639	1504
7 KPB-400	2191	1922	1712	1543	1404	1289
8 KPB-400	1917	1682	1498	1350	1229	1128
9 KPB-400	1704	1495	1331	1200	1092	1002
10 KPB-400	1534	1345	1198	1080	983	902
# OF KPB-400's AND TP-800's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800 / 1 KPB-400	10000	8616	7445	6554	5854	5288
2 TP-800 / 2 KPB-400	5112	4308	3722	3277	2927	2644
3 TP-800 / 3 KPB-400	3408	2872	2482	2185	1951	1763
4 TP-800 / 4 KPB-400	2556	2154	1861	1639	1463	1322
5 TP-800 / 5 KPB-400	2045	1723	1489	1311	1171	1058
6 TP-800 / 6 KPB-400	1704	1436	1241	1092	976	881
7 TP-800 / 7 KPB-400	1461	1231	1064	936	836	755
8 TP-800 / 8 KPB-400	1278	1077	931	819	732	661
9 TP-800 / 9 KPB-400	1136	957	827	728	650	588
10 TP-800 / 10 KPB-400	1022	862	744	655	585	529

16 AWG GAUGE - MAXIMUM DISTANCE FROM AA-9600 IN FEET						
# OF TP-800's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800	10000	10000	10000	10000	10000	10000
2 TP-800	10000	10000	10000	10000	10000	10000
3 TP-800	10000	10000	10000	8833	7666	6772
4 TP-800	12189	9523	7813	6624	5750	5079
5 TP-800	9751	7618	6251	5300	4600	4063
6 TP-800	8126	6348	5209	4416	3833	3386
7 TP-800	6965	5442	4465	3785	3285	2902
8 TP-800	6095	4761	3907	3312	2875	2539
9 TP-800	5417	4232	3473	2944	2555	2257
10 TP-800	4876	3809	3125	2650	2300	2032
# OF KPB-400's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 KPB-400	10000	10000	10000	10000	10000	10000
2 KPB-400	10000	10000	9523	8584	7813	7170
3 KPB-400	8126	7128	6348	5723	5209	4780
4 KPB-400	6095	5346	4761	4292	3907	3585
5 KPB-400	4876	4277	3809	3434	3125	2868
6 KPB-400	4063	3564	3174	2861	2604	2390
7 KPB-400	3483	3055	2721	2453	2232	2049
8 KPB-400	3047	2673	2381	2146	1953	1793
9 KPB-400	2709	2376	2116	1908	1736	1593
10 KPB-400	2438	2138	1905	1717	1563	1434
# OF KPB-400's AND TP-800's	AUX - 0 mA	AUX - 10 mA	AUX - 20 mA	AUX - 30 mA	AUX - 40 mA	AUX - 50 mA
1 TP-800 / 1 KPB-400	10000	10000	10000	10000	9305	8406
2 TP-800 / 2 KPB-400	8126	6848	5917	5209	4652	4203
3 TP-800 / 3 KPB-400	5417	4565	3945	3473	3102	2802
4 TP-800 / 4 KPB-400	4063	3424	2959	2604	2326	2102
5 TP-800 / 5 KPB-400	3250	2739	2367	2084	1861	1681
6 TP-800 / 6 KPB-400	2709	2283	1972	1736	1551	1401
7 TP-800 / 7 KPB-400	2322	1957	1691	1488	1329	1201
8 TP-800 / 8 KPB-400	2032	1712	1479	1302	1163	1051
9 TP-800 / 9 KPB-400	1806	1522	1315	1158	1034	934
10 TP-800 / 10 KPB-400	1625	1370	1183	1042	930	841

APPENDIX D: CONTACT ID REPORT AND RESTORE CODES

100	Medical Alarms
100	Medical
101	Pendant transmitter
102	Fail to report in
110	**Fire Alarms**
110	Fire alarm
111	Smoke
112	Combustion
113	Water Flow
114	Heat
115	Pull Station
116	Duct
117	Flame
118	Near alarm
120	**Panic Alarms**
120	Panic alarm
121	Duress
122	Silent
123	Audible
130	**Burglar Alarms**
130	Burglary
131	Perimeter
132	Interior
133	24 Hour
134	Entry/Exit
135	Day/Night
136	Outdoor
137	Tamper
138	Near Alarm
139	Silent Burg

140	General Alarms
140	Zone Alarm
141	Pooling loop open
142	Pooling loop close
143	Expansion module failure
144	Sensor tamper
145	Expansion module temper
146	Silent alarm
150-160	**24 Hour Non-Burglary**
150	24 Hour non-burg
151	Gas detected
152	Refrigeration
153	Loss of heat
154	Water leakage
155	Foil break
156	Day Trouble
157	Low bottled gas level
158	High temp
159	Low temp
161	Low of air flow
200-210	**Fire supervisory**
200	Fire supervisory
201	Low water pressure
202	Low CC2
203	Gate valve sensor
204	Low water level
205	Pump activated
206	Pump failure
300-310	**System Troubles**
300	High Internal Temp. Low Internal Temp. 12VDC Output Trouble SBI Output Trouble System Trouble

301	16VAC Input Trouble
302	Low system battery
303	RAM checksum bad
304	ROM checksum bad
305	System reset
306	Panel program changed
307	Self-test failure
308	Auto-standby
309	Battery test failure
310	Ground fault
320	**Sounder/Relay Troubles**
320	Sounder/relay
321	Defective Siren
322	Bell 2
323	Alarm relay
324	Trouble relay
325	Reversing
330-340	**System Peripheral Troubles**
330	System Periphral
331	Polling loop open
332	Polling loop close
333	Exp. module failure
334	Repeater failure
335	Local printer pacer out
336	Local printer failure
337	Exp. Mod DC Loss
338	Exp. Mod Low Batt.
339	Exp. Mod Reset
341	Exp. Mod Tamper

350-360	**Communication Troubles**	403	Automatic O/C	521	Bell 1 disable
350	Communication	404	Late to O/C	522	Bell 2 disable
351	Telco 1 fault	405	Deterred O/C	523	Alarm relay disable
352	Telco 2 fault	406	Cancel	524	Trouble relay disable
353	Long range radio	407	Remote arm/disarm	525	Reversing relay disable
354	Fail to communicate	408	Quick Arm	**530-540**	**System peripheral Disables**
355	Loss of radio supervision	409	Keyswitch O/C	**550-560**	**Communication Disables**
356	Loss of central cooling	**410**	**Remote Access**	551	Dialer disabled
357	Radio Xmtr VSWR	411	Callback request made	552	Radio xmitter disabled
370	**Protection Loop Troubles**	412	Succes-download access	**570**	**Bypasses**
370	Protection loop	413	Unsuccessfull access	570	Zone bypass
371	Protection loop open	414	System shutdown	571	Fire bypass
372	Protection loop short	415	Dialer shutdown	572	24 Hour zone bypass
373	Fire trouble	**420**	**Access Control**	573	Burg. bypass
374	Exit alarm	421	Acces denied	574	Group bypass
380	**Sensor Troubles**	422	Access report by user	575	Swinger bypass
380	Sensor trouble	**440-450**	**Special O/C**	**600**	**Test/Misc.**
381	Loss of super.- RF	441	Armed Stay	601	Manual trigger test
382	Loss of super. - RPM	450	O/C by Exception	602	Periodic test report
383	Sensor tamper	451	Early O/C	603	Periodic RF Xmission
384	RF xmtr. low battery	452	Late O/C	604	Fire test
385	Smoke Hi-Sens.	453	Fail to O/C	605	Status report to follow
386	Smoke Low Sens.	455	Auto Arm Fail	606	Listen-in to follow
387	Intrusion Hi Sens.	456	O/C Partial Arm	607	Walk Test Mode
388	Intrusion Low Sens	457	Exit Error	608	OFF normal condition
389	Detector Self Test Fail	458	At-Home Arming	609	Video transmitter active
400	**Open/Close**	459	Recent Close	611	Fire test : point tested
400	Open/Close	**500 - 510**	**System disables**	612	Fire test : point not tested
401	O/C by user	**520**	**Sounder/Relay disables**	621	Event log reset
402	Partition O/C	520	Sounder/Relay disables	622	Event log 60% full

623	Event log 90 % full
624	Event log overflow
625	Time/Date Reset
626	Time/Date inaccurate
627	Program mode Entry
628	Program mode Exit
629	1&1/3 day no read log
630	Sched change
631	Exception Schedule change
632	Acces Sched. change
700-7FF	An alarm has been acknowledged by the user before being signalled to the central alarm facility. The last 2 digits of the code correspond to the last 2 digits of the original alarm code.
B00-B65	An unacknowledged temperature alarm has occurred. The last 2 digits correspond to the current temperature in °C (positive value).
BFF	Probe is defective and alarm has not been acknowledged.
C01-C40	An unacknowledged temperature alarm has occurred. The last 2 digits correspond to the current temperature in °C (negative value).
CFF	Probe wiring is defective and alarm has not been acknowledged.
D00-D65	A temperature alarm has occurred and has been acknowledged. The last 2 digits correspond to the current temperature in °C (positive value).
DFF	Probe is defective and alarm has been acknowledged
E01-E40	A temperature alarm has occurred and has been acknowledged. The last 2 digits correspond to the current temperature in °C (negative value).
EFF	Probe wiring is defective and alarm has been acknowledged.
FFF	This code is used when the user does not wish to transmit an alarm to the central alarm facility.

APPENDIX E: EVENT CODES

Code	Function	Parameter	Parameter Description	Item
01	Telephone	0	Digits 1-32	Index Number (1-16)
		1	Pager type or tel.	Index Number (1-16)
		2	Pager Code	Index Number (1-16)
		3	Pager Delay	Index Number (1-16)
		4	Transmit Call	Index Number (1-16)
		5	Receive Call	Index Number (1-16)
		6	Voice Repetitions	
		7	Wait for dial tone	
		8	Intercall Time/busy signal	
		9	Busy Line Tries	
		10	Call Delay	
		11	DTMF Speed	
		12	Pause Delay	
		13	Answering Machine	
		14	Pulse	
		15	Rings/Max. Call sequences	
		16	Max. Call Sequences	
		17	Make Interval	
		18	Break Interval	
		19	Interdigit Interval	
		20	State of Phone Line Cut Monitor	
		21	Phone Line Cut Monitor Trouble	
		22	Daytime Phone Group	
		23	Nighttime Phone Group	
		24	Weekend Phone Group	
		25	Phone Group Zone	
02	Test Report	0	Hour / minute	
		1	Day Interval	
03	Delays	0	Entry Delay	
		1	Exit Delay	
		2	AC Power Failure	
		3	Siren Delay Activated	
		4	Listening Delay	
		5	Temp. Siren Delay	
04	Outdoor Probe	0	Zone Number	
		1	Compensation Status	
		2	Offset	

Code	Function	Parameter	Parameter Description	Item
05	Time	0	Reset Time	
		1	Recall Delay	
06	Arming	0	Status of Burglar Zones	
		1	keyboard locked	
07	Status	0	Card#1	
		1	Card#2	
		2	Restore	
		3	12h/24h	
		4	ID MSG	
		5	Line Seizure	
		6	°C/°F	
		7	On-Site Listening	
		8	AC Power Failure	
		9	Password Status	
		10	On/Off	
		11	SBI Battery Low	
		12	Siren Monitoring	
		13	SBI Monitoring	
		14	12VDC Monitoring	
08	Default Parameters	0	Default Parameter Status	
09	Password	0	Installer	
		1	Master	
		2	User	User Number (1-10)
10	Zones	0	Zone Status	Zone Number (1-96)
		1	Bypass Status	Zone Number (1-96)
		2	Zone Type	Zone Number (1-96)
		3	Recognition Time	Zone Number (1-96)
		4	Observation Period	Zone Number (1-96)
		5	Critical Temperature	Zone Number (1-96)
		6	Low Set Point	Zone Number (1-96)
		7	High Set Point	Zone Number (1-96)
		8	Min. Value	Zone Number (1-96)
		9	Max. Value	Zone Number (1-96)
		10	Relay Device ID	Zone Number (1-96)
		11	Relay Status on Alarm	Zone Number (1-96)
		12	Device Relay #	Zone Number (1-96)
		13	Trouble	Zone Number (1-96)
		14	Siren/Dialout	Zone Number (1-96)
		15	Trouble Status	Zone Number (1-96)
		16	Trouble Status All Zones	

Code	Function	Parameter	Parameter Description	Item
11	Partitions	0	Partition #1	Zone Number (1-96)
		1	Partition #2	Zone Number (1-96)
		2	Partition #3	Zone Number (1-96)
		3	Partition #4	Zone Number (1-96)
		4	Partition #5	Zone Number (1-96)
		5	Partition #6	Zone Number (1-96)
		6	Partition #7	Zone Number (1-96)
		7	Partition #8	Zone Number (1-96)
		8	Partition #9	Zone Number (1-96)
		9	Partition #10	Zone Number (1-96)
		10	Partition #11	Zone Number (1-96)
		11	Partition #12	Zone Number (1-96)
		12	Partition #13	Zone Number (1-96)
		13	Partition #14	Zone Number (1-96)
		14	Partition #15	Zone Number (1-96)
		15	Partition #16	Zone Number (1-96)
		16	Partition Status	Partition Number (1-16)
12	Relays	0-97	Relay Status (Device #)	0 - disabled; 1 - enabled
13	Database	0	Local Zone 1	Device Number (1-99)
		1	Local Zone 2	Device Number (1-99)
		2	Local Zone 3	Device Number (1-99)
		3	Local Zone 4	Device Number (1-99)
		4	Local Zone 5	Device Number (1-99)
		5	Local Zone 6	Device Number (1-99)
		6	Local Zone 7	Device Number (1-99)
		7	Local Zone 8	Device Number (1-99)
		8	Local Zone 9	Device Number (1-99)
		9	Local Zone 10	Device Number (1-99)
		10	Local Zone 11	Device Number (1-99)
		11	Local Zone 12	Device Number (1-99)
		12	Local Zone 13	Device Number (1-99)
		13	Local Zone 14	Device Number (1-99)
		14	Local Zone 15	Device Number (1-99)

Code	Function	Parameter	Parameter Description	Item
13	Database	15	Local Zone 16	Device Number (1-99)
		16	Local Zone 17	Device Number (1-99)
		17	Local Zone 18	Device Number (1-99)
		18	Local Zone 19	Device Number (1-99)
		19	Local Zone 20	Device Number (1-99)
		20	Local Zone 21	Device Number (1-99)
		21	Local Zone 22	Device Number (1-99)
		22	Local Zone 23	Device Number (1-99)
		23	Local Zone 24	Device Number (1-99)
		24	Local Zone 25	Device Number (1-99)
		25	Local Zone 26	Device Number (1-99)
		26	Local Zone 27	Device Number (1-99)
		27	Local Zone 28	Device Number (1-99)
		28	Local Zone 29	Device Number (1-99)
		29	Local Zone 30	Device Number (1-99)
		30	Local Zone 31	Device Number (1-99)
		31	Local Zone 32	Device Number (1-99)
		32	Local Zone 33	Device Number (1-99)
		33	Local Zone 34	Device Number (1-99)
		34	Local Zone 35	Device Number (1-99)
		35	Local Zone 36	Device Number (1-99)
		36	Local Zone 37	Device Number (1-99)
		37	Local Zone 38	Device Number (1-99)
		38	Local Zone 39	Device Number (1-99)
		39	Local Zone 40	Device Number (1-99)
		40	Local Zone 41	Device Number (1-99)
		41	Local Zone 42	Device Number (1-99)
		42	Local Zone 43	Device Number (1-99)
		43	Local Zone 44	Device Number (1-99)
		44	Local Zone 45	Device Number (1-99)
		45	Local Zone 46	Device Number (1-99)
		46	Local Zone 47	Device Number (1-99)

Code	Function	Parameter	Parameter Description	Item
13	Database	47	Local Zone 48	Device Number (1-99)
		48	Local Zone 49	Device Number (1-99)
		49	Local Zone 50	Device Number (1-99)
		50	Local Zone 51	Device Number (1-99)
		51	Local Zone 52	Device Number (1-99)
		52	Local Zone 53	Device Number (1-99)
		53	Local Zone 54	Device Number (1-99)
		54	Local Zone 55	Device Number (1-99)
		55	Local Zone 56	Device Number (1-99)
		56	Local Zone 57	Device Number (1-99)
		57	Local Zone 58	Device Number (1-99)
		58	Local Zone 59	Device Number (1-99)
		59	Local Zone 60	Device Number (1-99)
		60	Local Zone 61	Device Number (1-99)
		61	Local Zone 62	Device Number (1-99)
		62	Local Zone 63	Device Number (1-99)
		63	Local Zone 64	Device Number (1-99)
		64	Local Zone 65	Device Number (1-99)
		65	Local Zone 66	Device Number (1-99)
		66	Local Zone 67	Device Number (1-99)
		67	Local Zone 68	Device Number (1-99)
		68	Local Zone 69	Device Number (1-99)
		69	Local Zone 70	Device Number (1-99)
		70	Local Zone 71	Device Number (1-99)
		71	Local Zone 72	Device Number (1-99)
		72	Local Zone 73	Device Number (1-99)
		73	Local Zone 74	Device Number (1-99)
		74	Local Zone 75	Device Number (1-99)
		75	Local Zone 76	Device Number (1-99)
		76	Local Zone 77	Device Number (1-99)
		77	Local Zone 78	Device Number (1-99)

Code	Function	Parameter	Parameter Description	Item
13	Database	78	Local Zone 79	Device Number (1-99)
		79	Local Zone 80	Device Number (1-99)
		80	Local Zone 81	Device Number (1-99)
		81	Local Zone 82	Device Number (1-99)
		82	Local Zone 83	Device Number (1-99)
		83	Local Zone 84	Device Number (1-99)
		84	Local Zone 85	Device Number (1-99)
		85	Local Zone 86	Device Number (1-99)
		86	Local Zone 87	Device Number (1-99)
		87	Local Zone 88	Device Number (1-99)
		88	Device ID	Device Number (1-99)
		89	Slave Type	Device Number (1-99)
		90	Relay Status	Device Number (1-99)
14	Temp. Curve	0	Curve Status	Zone Number (1-96)
		1	Activation Date	Zone Number (1-96)
		2	High Offset	Zone Number (1-96)
		3	Low Offset	Zone Number (1-96)
		4	Point #1	Zone Number (1-96)
		5	Point #2	Zone Number (1-96)
		6	Point #3	Zone Number (1-96)
		7	Point #4	Zone Number (1-96)
		8	Point #5	Zone Number (1-96)
		9	Point #6	Zone Number (1-96)
		10	Point #7	Zone Number (1-96)
		11	Point #8	Zone Number (1-96)
		12	Point #9	Zone Number (1-96)
		13	Point #10	Zone Number (1-96)
15	Reserved			

Code	Function	Parameter	Parameter Description	Item
16	Alarms	0	Zones	Zone Number (1-96)
17	Acknowledge	0	Zones	Zone Number (1-96)
18	Erase Memory	0	Erase Memory Status	
19	Copy/Paste	0	Zones	Zone Number (1-96)
20	Call Alarm Facility-Status Change	0		

APPENDIX F: SYSTEM KEY MENUS

SYSTEM

ENTER PASSWORD
(DEFAULT = 9601)

PROGRAM ZONES

PRORAM DIALING

PROGRAM SYSTEM

PROGRAM AUX'S

SETUP
(sec. 4.1)

COPY/PASTE
(sec. 4.2)

ASSIGN
(sec. 3.4)

EDIT LABEL
(sec. 4.4)

REMOVE
(sec. 4.8)

RESET TIME
(sec. 4.6)

MIN/MAX TIME
(sec. 4.7)

CALIBRATION
(sec. 4.1.3.1)

CALL START DELAY
(sec. 5.2.8)

BETWEEN CALL TIME
(sec. 5.2.9)

ALARM RECALL TIME
(sec. 5.2.10)

RESTORE CALLS
(sec. 5.2.11)

DIALING MODE
(sec. 5.2.1)

LINE SEIZURE
(sec. 5.2.2)

#/OF CALL REPS.
(sec. 5.2.3)

MESSAGE REPEATS
(sec. 5.2.4)

BUSY LINE TRIES
(sec. 5.2.5)

TONE DELAY
(sec. 5.2.6)

PAUSE DELAY KEY
(sec. 5.2.7)

DIALER DISABLED
(sec. 5.2.12)

BACKUP BATTERY
(sec. 7.2.2)

TEMPERATURE
(sec. 7.2.1)

SYSTEM VOICE MUTE
(sec. 5.6)

CONTRAST
(sec. 3.8)

INST. PASSWORD
(sec. 3.1)

FORCE ARMING
(sec. 7.10)

EVENT
(sec. 6.3)

VERSION SOFTWARE
(sec. 3.14)

SET DEFAULTS
(sec. 3.11)

OUTDOOR PROBE
(sec. 7.3.1)

EXTENSION CARD
(sec. 3.2)

SIREN DISABLED
(sec. 4.1.7)

DEVICE

OUTPUT

SBI

UPLOAD

MONITORING

INFORMATION

REPORT

ADD
(sec. 3.3.1)

REMOVE
(sec. 3.3.2)

EDIT LABEL
(sec. 3.3.3)

ASSIGN
(sec. 6.4.4)

DEASSIGN
(sec. 6.4.5)

POWER
(sec. 3.5.1)

SPEED
(sec. 3.5.2)

UP-1000
(sec. 3.3.4)

AUX. DEVICES
(sec. 3.3.5)

AA9600
(sec. 3.3.6)

PHONE LINE
(sec. 5.7)

SIREN
(sec. 7.11.3)

SBI
(sec. 3.5.3)

12VDC OUTPUT
(sec. 3.12)

ZONE
(sec. 4.3)

DEVICE
(sec. 3.3.7)

ACCOUNT NUMBER
(sec. 5.1.1)

ALARM
(sec. 5.1.2)

RESTORE
(sec. 5.1.4)

TEMPERATURE
(sec. 5.1.6)

STATUS CHANGE
(sec. 5.1.7)

SPEED
(sec. 5.1.8)

LEGEND

▶ PRESS THE DOWN-ARROW KEY

→ PRESS ENTER

GLOSSARY OF TERMS

ACKNOWLEDGMENT: The indication to the system that an alarm message has been received. The alarm acknowledgment stops the dialout sequence and can be executed over the phone or from the keypad.

ALARM MEMORY: A record of the ten last alarms stored by the system (see Section 7.4).

AT-HOME ARMING: Burglar zones around the perimeter are armed but at-home zones are bypassed after exit delay has elapsed if no one has left the building (see section 4.1.2).

BREAK: On pulse dialing lines, the length of the open circuit portion of the pulse period (see Section 5.2.1.3).

BURGLAR ZONE: A zone used for detecting break-ins. Delays are provided to allow authorized entries and exits. All burglar zones are armed or disarmed as a group using a special key sequence (see Section 4.1.2).

BUSY LINE TRIES: In the dialout sequence, the number of times the system will retry a line when the number is busy. (see Section 5.2.5).

CALL START DELAY: The time between the validation of an alarm and the beginning of the dialout sequence (see Section 5.2.8).

CALL SEQUENCES: In the dialout sequence, the number of times the phone numbers in memory are called for a given alarm (See Section 5.2.3).

DEFAULT: A value permanently stored in memory and used to define a parameter in the absence of a user-defined value (see Section 3.10).

DIALOUT SEQUENCE: Upon validation of an alarm, the calling of the phone numbers in memory according to a specified order until each number is reached a specified number of times (see Section 5.2).

DTMF SPEED (Dual Tone Multiple Frequency Speed): The dialing speed used on tone dialing lines (see Section 5.2.1.2).

EOLR (End Of Line Resistor): A resistor added to an alarm circuit and used for detecting wire problems (see Section 4.1.1).

ENTRY DELAY: The time delay for entering the site without setting off an alarm (see Section 7.8).

EXIT DELAY: The time delay for exiting the site without setting off an alarm (see Section 7.9). This applies to burglar zones only.

EXTENSION CARD: An electronic card that plugs into the main board and allows 8 additional zone definitions (marked V-102) (see Section 1.2.2).

FORCE ARMING: Delay burglar zones are armed even if they are in an alarm state (see section 7.10).

INTERCALL TIME: In the dialout sequence, the delay after a phone number has been called, before proceeding with the next number (see Section 5.2.9).

INTERDIGIT INTERVAL: On pulse dialing lines, the length of the interval between each digit (see Section 5.2.1.3).

LED: Light Emitting Diode — An electronic device used to indicate the status of various functions on the front panel.

MAIN BOARD: The electronic card located at the bottom of the Agri-Alert enclosure (see Section 1.2.1).

MAKE: On pulse dialing lines, the length of the closed circuit portion of the pulse period (see Section 5.2.1.3).

MESSAGE REPETITIONS: The number of times a voice message is delivered when an alarm condition is reported (See Section 5.2.4).

NORMALLY CLOSED DEVICE: A device that triggers an alarm by opening a closed circuit path (see Section 4.1.1).

NORMALLY OPEN DEVICE: A device that triggers an alarm by closing an open circuit path (see Section 4.1.1).

PARTITION: A group of zones used for activating or bypassing several zones at once (see Section 7.6).

PULSE SPEED: This is the dialing speed used on pulse dialing lines, consisting of a make, a break and an interdigit interval (see Section 5.2.1.3).

RECALL TIME: The length of time between the time the alarm is acknowledged and the time the dialout sequence is relaunched (as long as the zone has not returned to its normal state for the duration of reset time (see Section 5.2.10).

SBI: Communication bus used to connect the Agri-Alert devices together (see section 1.5).

SENSOR: A device connected to the Agri-Alert used to detect alarm conditions (see Section 1.4.1).

SIREN DURATION: The duration of the siren when an alarm condition is reported (see Section 7.10.1).

ZONE: An input configured to respond to the sensor connected to it (See Section 4.1).

WIRING DIAGRAMS

DO NOT DRILL THE SIDES OF THE UNIT CONTROL. USE AVAILABLE KNOCK OUTS AT THE BOTTOM OF THE UNIT.

DO NOT HOOKUP THE SIREN IF THE BATTERY IS NOT HOOKED UP.

WHEN MAKING ZONE CONNEC-TIONS, USE THE COMMON TERMI-NAL IMMEDIATELY NEXT TO THE ZONE INPUT. DO NOT CONNECT MORE THAN TWO ZONES ON THE SAME COMMON.

IF A SIREN IS CONNECTED, THE BACKUP BATTERY MUST ALSO BE CONNECTED.
IF A SIREN IS NOT USED, CONNECT A 1.5KΩ 1/2W RESISTOR BETWEEN THE POSITIVE AND NEGATIVE TERMINALS OF THE SIREN.

WIRING DIAGRAM
AGRI-ALERT 9600
MAIN BOARD Rev.01

CONNECTOR FOR EXTENSION CARD #1

CONNECTOR FOR EXTENSION CARD #2

MAKE SURE that the Agri-Alert 9600 can operate using only the battery supply BEFORE connecting the transformer !

ZONE INPUTS

Z9 GND Z10 Z11 GND Z12 Z13 GND Z14 Z15 GND Z16

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

CONNECTION
TO MAIN BOARD

N.C. CIRCUIT
WITH EOLR

1.5kΩ
1/2 W

N.C. CIRCUIT
W/O EOLR

N.O. CIRCUIT
WITH EOLR

1.5kΩ
1/2 W

N.O. CIRCUIT
W/O EOLR

WHEN MAKING ZONE CONNECTIONS,
USE THE GROUND TERMINAL
IMMEDIATELY NEXT TO THE
ZONE INPUT. DO NOT CONNECT
MORE THAN TWO ZONES ON THE
SAME GROUND.

TECHNICAL SPECIFICATIONS

TYPE: **AA9600**

SUPPLY INPUT
    16VAC: 16Vac, 130VA, 50-60Hz
       BATTERY: Rechargeable, sealed, lead-acid, 12V-7AH

OUTPUTS
    AUXILIARY RELAY 1-2:   28Vdc, 5A max.
    SERIAL BUS: 28Vdc, 2A max.
    0-10VDC: 0-10Vdc, 25mA max.
    SIREN: 12Vdc, 1A max.
    12VDC: 12Vdc, 750mA max.

OPERATING TEMPERATURE: 32 TO 104°F (0 TO 40°C) Indoor use only
POLLUTION DEGREE :   2
INSTALLATION CATEGORY: 2
ALTITUDE: 7900 Ft.Max (2000 Meters Max)
HUMIDITY: 95% max.
CLEANING: Gentle soap and water.

TYPE: **TRANSFORMER BOX**

SUPPLY INPUT: 115/230Vac ±10% (SW1 SWITCH), 50-60Hz, 100 W max.
                                     Fuse F1 = 3A FAST BLOW

OUTPUT: 16Vac, 130Va

OPERATING TEMPERATURE: 32 TO 104°F (0 TO 40°C) Indoor use only
POLLUTION DEGREE :   2
INSTALLATION CATEGORY: 2
ALTITUDE: 7900 Ft.Max (2000 Meters Max)
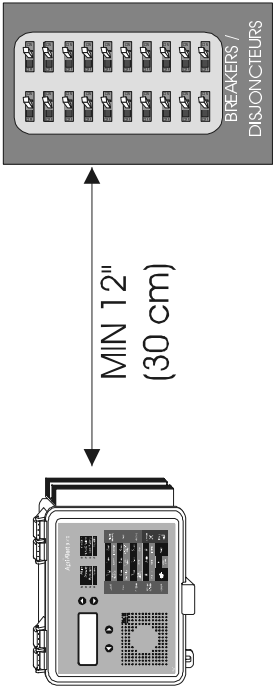HUMIDITY: 95% max.
CLEANING: Gentle soap and water.

AA-9600 INSTALLATION GUIDE
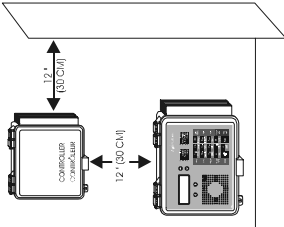
FOR ELECTRICAL SPECIFICATIONS REFER TO INSTRUCTION MANUAL.

POUR LES SPÉCIFICATIONS ÉLECTRIQUES SE RÉFÉRER AU MANUEL D'INSTRUCTIONS

METALIC CABLE HOLDER / SERRE-CÂBLE MÉTALLIQUE

WIRE WITHOUT CONNECTOR / FIL SEUL

WATERTIGHT CONNECTOR / CONNECTEUR ÉTANCHE

3 - Always use watertight connectors.

3 - Toujours utiliser des connecteurs étanches.

4 - Pass all wires through bottom of controller. Do not make holes through top or side panels of enclosure.

4 - Passer les fils à travers la paroi inférieure du boîtier. Ne jamais percer le dessus ni les côtés du boîtier.

MIN 12" (30 cm)

BREAKERS / DISJONCTEURS

1 - Install the Agri-Alert as far as possible from high voltage sources.
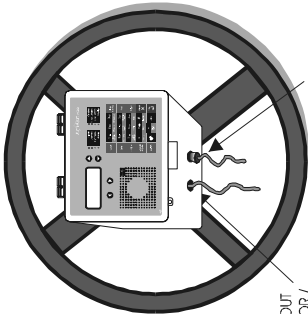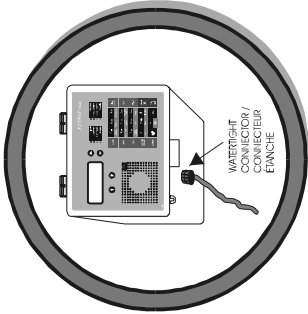
1 - Installer l'Agri-Alerte le plus loin possible de toute source de haute tension importante

12" (30 CM)

CONTROLLER / CONTRÔLEUR

12 " (30 CM)

2 - For servicing reasons, leave a clearing of at least 12 inches (30 cm) from other equipment. This will make it easier to remove the cover or unscrew the heat sink.

2 - Pour faciliter l'entretien, laisser un espace libre de 12 pouces (30 cm) autour de l'appareil. Ceci permettera d'enlever le couvercle et de dévisser le dissipateur de chaleur.
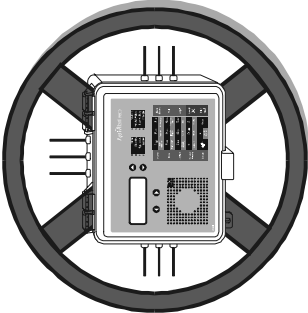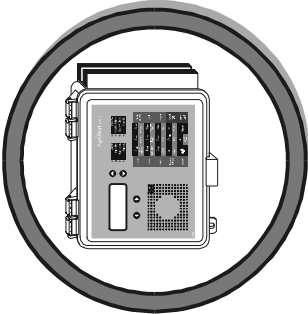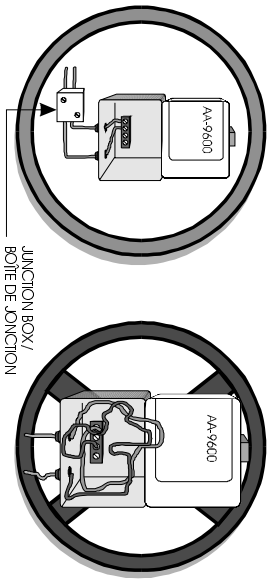
5 - Be sure that all incoming cables connect directly to connectors. NO wire looping should touch the top board. The controller is not a junction box.

5 - Tous les fils entrant dans le boîtier se branchent directement aux bornières. S'assurer qu'aucun filage ne touche le couvercle refermé. Le contrôleur n'est pas une boîte de jonction.

JUNCTION BOX /
BOÎTE DE JONCTION

AA-9600

AA-9600

SHIELDED CABLE REQUIRED /
CÂBLE BLINDÉ REQUIS

DON'T CONNECT GROUND WIRE / NE PAS RELIER LE FIL DE GROUND
TO THE GROUND, CUT IT. / À LA TERRE, LE COUPER

18 AWG MINIMUM

SOLDER GUN / FER À SOUDER
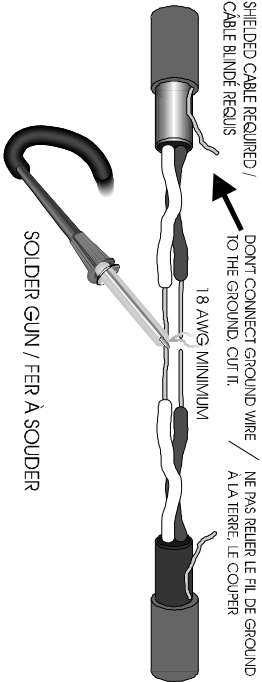
6 - Always use 18 AWG (1mm) shielded cables to extend probes. Solder all joints and use a heat shrink when extending probes.

6 - Toujours utiliser du fil blindé 18AWG (1mm) pour allonger la sonde. Souder les joints et les recouvrir d'un joint thermorétractable(heat shrink).

500' MAX
(150 M)

MIN 12" (30 CM)

TIE WRAP
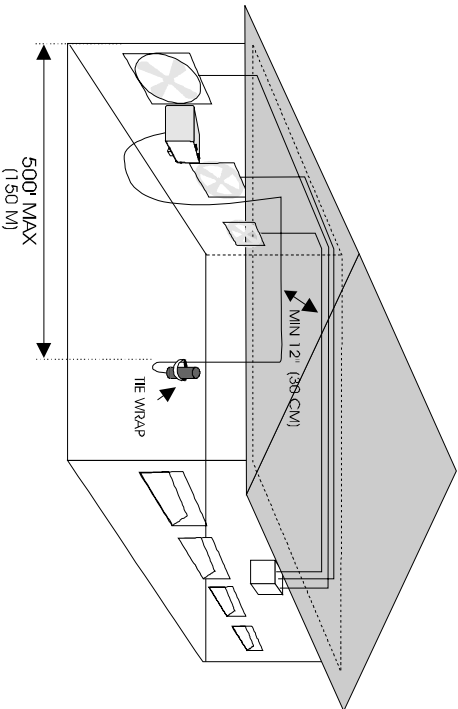
7 - Never extend a probe over 500 feet (150 m). Identify each probe on the floor with its terminal input number. The probe tip should curl upwards to prolong the life of the probe.

7 - Une sonde ne peut être allongée plus de 500 pieds (150 m). Identifier chaque sonde sur le plancher par son numéro de borne d'entrée. L'extrémité de la sonde doit être repliée vers le haut à l'aide d'un "tie wrap" pour allonger sa durée de vie.

8 - Install low voltage wires (probes, computer link or potentiometer wires) at least 12 inches (30 cm) away from high voltage wires (230-120VAC, 24VDC). Always cross high and low voltage wires at a 90° angle.

8 - Installer les fils de basse tension (sonde, potentiomètre ou connexion à l'ordinateur) à au moins 12 pouces (30cm) des fils de haute tension (230-120 VAC, 24VDC). Toujours croiser les fils de haute et basse tension à 90°.

WARNING : DO NOT PLACE THE PROBES NEAR A LOW WALL, A HEATER OR NEAR A FAN

ATTENTION : NE PAS PLACER LES SONDES PRÈS DES MURETS, PRÈS D'UNE SOURCE DE CHALEUR OU D'UN VENTILATEUR.

AA-9600.rev.12

REGISTRATION CARD

AGRI-ALERT 9600

Please fill out the following form to receive information on future updates.

Name_____

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Serial Number_____

Software Version Number_____ (Press the **System** key)

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