EXHIBIT 7-1   CFS8DLVAM / 573F-VAM

EXHIBIT 7-1

Honeywell

VAM (VISTA Automation Module) - Installation & Setup Guide

Introduction

VISTA Automation Module (herein referred to as "VAM") combines home automation and home security and is intended for use with compatible VISTA® series control panels. VAM includes a built-in web server, Wi-Fi® capability, and Z-Wave® technology allowing VISTA installations to support Z-Wave devices.
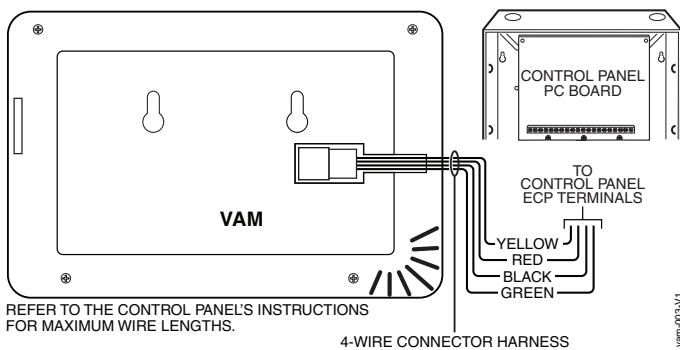
The VISTA Automation Module also supports Remote Services for controlling Z-Wave devices and Scenes remotely from an associated Total Connect™ account.

VAM is controlled using a web browser on a Wi-Fi enabled smart device such as a Tablet PC, laptop, Smartphone, etc.

DISPLAY NOTE: For optimum viewing of the screens and menus, the tablet's font size setting may need to be adjusted.
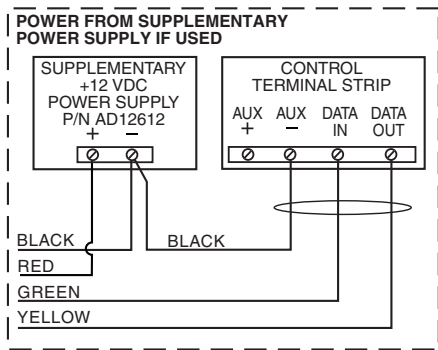
Make Wiring Connections

Connect VAM to the control panel's keypad data (ECP) terminals using a standard 4-wire keypad connector harness.

CONTROL PANEL PC BOARD

TO CONTROL PANEL ECP TERMINALS

YELLOW
RED
BLACK
GREEN

VAM

REFER TO THE CONTROL PANEL'S INSTRUCTIONS FOR MAXIMUM WIRE LENGTHS.

4-WIRE CONNECTOR HARNESS

vam-003-V1

Wire Connections to the Control Panel

Verify that VAM and other connected devices do not exceed the control's Aux Power output capability. If it does, use a supplementary power supply as shown.

IMPORTANT: When VAM is powered from an auxiliary power supply, always apply power to the control panel <u>first</u> and then VAM. Failure to observe this sequence results in improper operation of VAM and may result in an ECP Error indication.


POWER FROM SUPPLEMENTARY POWER SUPPLY IF USED

SUPPLEMENTARY +12 VDC POWER SUPPLY P/N AD12612
+   −

CONTROL TERMINAL STRIP

AUX   AUX   DATA   DATA
 +   −   IN   OUT

BLACK   BLACK
RED
GREEN
YELLOW

pwr_supp_conn-011-V0

Supplementary Power Connections

Mount the VAM

VAM is for indoor use only and should be mounted near the control panel or a keypad connected to the control panel for ease of wiring.

VAM mounts to a wall surface by hanging on two screws. See the diagram below.

- Leave the screw heads 1/8" above the wall surface.
- If necessary, drill a hole in the wall for the wire harness to pass through.
- Connect the wire harness to the VAM before mounting.

2.54"   2.5"

1.65"

MOUNTING SCREW
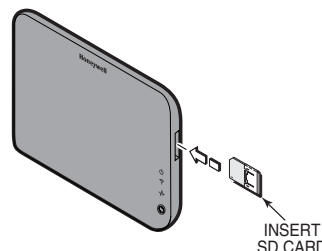DRILL 3/16" DIA. HOLES 2 PLACES

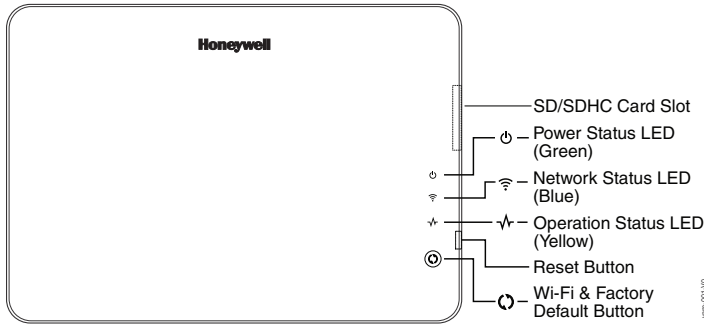vam-004-V0
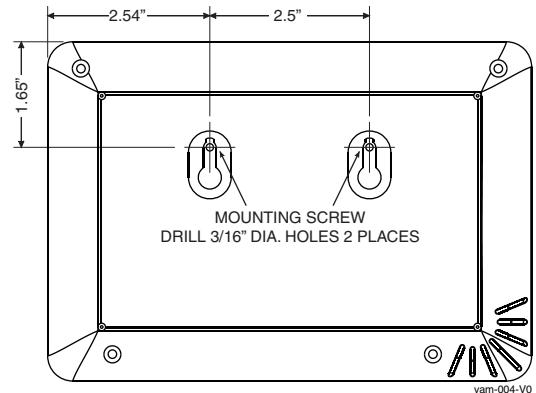
Insert an SD/SDHC Memory Card

An SD card must be installed to receive automatic software upgrades. The SD card can be left in the VAM. See Software Upgrades section.

- Avoid touching the contacts on the card
- 4GB SD card supplied
- Supports up to 16GB SD Card

Insert the memory card (SD/SDHC Card) as shown.

INSERT SD CARD

Front Panel LEDs

SD/SDHC Card Slot
Power Status LED (Green)
Network Status LED (Blue)
Operation Status LED (Yellow)
Reset Button
Wi-Fi & Factory Default Button

LED	FUNCTION
Power Status (Green)	Indicates power status. Blinking when it is powered up and booting. Solid green when it is fully functional.
Network Status (Blue)	When the WIFI is connected to the VAM, it will show the WIFI status through the blue LED. The LED is blinking when VAM is booting and solid blue when VAM is ready as AP mode (acting as an Access Point) or connects to the internet as STA mode (station mode, device is connected to the Wi-Fi router).
Operation Status (Yellow)	Normally off. It will blink slowly when there is no ECP(including ECP error) or Z-wave controller not responding. Fast blinking indicates Z-wave is in enrollment or deletion status.
Reset Button	Press to reset the device.
Wi-Fi & Factory Default Button	• **Wi-Fi Network Reset**: Press and hold down for more than 5 seconds to clear the VAM's Wi-Fi network connection. You will then need to reconnect the VAM to your home Wi-Fi network. • **Factory Default Reset**: Double press this button, then, while the green, blue, and yellow LEDs blink in sequence, press and hold down this button for more than 5 seconds to set the VAM to its factory default settings.

Specifications

Mechanical
Width: 7.58'' (192.5mm)
Height: 5.31''(135.0mm)
Depth: 0.53''(13.45mm)

Electrical
Voltage: 12VDC
Current: 180mA

Operating Environment
Humidity : 93% RH, non- condensing
Temperature:
Operating : 14˚F to 131˚F / -10˚C to 55˚C
Shipping / Storage: -40˚F to 158˚F / -40˚C to 70˚C

Set Up the WiFi Network

To set up the WiFi network for VAM, you will need the following:
• Wi-Fi enabled smart device (Tablet PC, laptop, Smartphone, etc.)
• VAM SSID and WPA2 password (located on the VAM's label)
• VAM default IP address: **192.168.2.1**
• Home router SSID and WPA2 password (typically located on the home router's label); home router must use WPA2 encryption and have a password (key) assigned.

NOTES: 1. Before setting up the network, set your smart device for Wi-Fi operation only (turn off 3G/4G option).
2. If the wireless router is later replaced, these steps must be repeated to connect the VAM to the new router.

1. **Connect a smart device to VAM.**
   a. Power up the VAM.
   b. Connect the smart device to the VAM using the device's WiFi settings menu (VAM is a wireless access point).
      Enter the VAM SSID: **VAM_xxxx** (SSID is case-sensitive)
      NOTE: xxxx = the last 4 digits of the MAC address
      Enter the Key (found on the VAM label "WPA2 pw" line)

2. **Access VAM's home screen.**
   a. Open a web browser on the computer device.
   b. Go to VAM's default IP address: **192.168.2.1**
   c. Optional: Z-Wave devices can be installed and added into the system before connecting to the home router (ex. the home router is not available at the time of VAM installation). by using the VAM automation menus. Refer to the **Adding Z-Wave Devices** section for details.
   d. When ready to connect the VAM to the home router network, go to step 3.

3. **Connect the VAM to the home router.**
   a. From the main menu, click the **Set Home Router** button.
   b. Enter the home router SSID and security key (SSID and security key are case-sensitive).
   c. Click **Connect**. A countdown begins and displays "Trying to connect to the Router: xxxx, please stay in this page and wait…" VAM can take about 2 minutes to connect to the home router. During this time, a new network IP address is assigned to the VAM.
   d. When done, VAM automatically connects to the home router.

4. **Retrieve and save VAM's network IP address.**
   a. Leave the browser page open (minimize, but don't close, if needed).
   b. Reconnect the device to the VAM using the device's Wi-Fi settings menu.
   c. When connected to the VAM, return to the open browser page and click the **Show IP Info** link.
   d. The home router's SSID and VAM's new IP address is shown.
   e. Select the **Fixed IP** option and replace the displayed IP address with the recommended address shown. Note this IP address for future reference. Click the **Save** button.
   f. At the "…do you want to continue?" prompt, click the checkmark (yes). VAM reboots, then automatically connects to the home router and opens the main menu.

5. **Complete the setup and bookmark VAM's URL.**
   a. VAM should now be connected to the home network router.
   b. Bookmark the URL displayed in the browser's address bar for easy access to VAM later.
   c. To access VAM's main menu at a later session, simply go to the bookmarked address, or find the IP address at the following URL: **http://vam.mylanconnect.com**

Program the Control Panel for using VAM

At the control, assign an appropriate touchscreen (AUI) type device address (ECP address) for VAM, and set a partition (if applicable).

Refer to the control panel's programming instructions for detailed procedures.

After enabling the VAM device address in the control panel, set the VAM to the selected address. See section below.

On VISTA® Plus series or equivalent

Use data field *189 to enable an unused device address 1, 2, 5 or 6 for VAM. Addresses 1 and 2 are enabled by default.

On VISTA® Turbo and Commercial VISTA Series

(VISTA-128BP, VISTA-128FBP, etc.)

Use #93 Menu mode to enable an unused device address.

- For older controls under Rev. 10, addresses 1-2, and 3-30 may be used.
- For VISTA Turbo series controls Rev. 10 and higher, addresses 1-30 may be used. These addresses are normally not defaulted for AUI type devices.

If using Remote Services

Enable an appropriate RIS address in the control panel and enable the remote service (RIS) option if applicable.

Program the VAM Device Address

VAM Device Address

Default VAM device address = 1.

1. Click **Setup** > **System**.
2. Click **ECP Address**.

   Using the Up/Dn arrows, choose the device address assigned for VAM in the control panel.
3. Click **Apply**.
4. VAM automatically reboots after the device address is set.

Remote Services Option

Set the Time & Date

Set the time and date manually or retrieve the time and date from the control panel (if programmed).

Get Time/Date from the Control Panel

1. Click **Setup** > **System** > **Time/Date Setup**.
2. Click the **Get Time** button.

   The VAM retrieves the time and date programmed in the control panel.

Manually Set the Time/Date

1. Click **Setup** > **System** > **Time/Date Setup**.
2. Select the Month, Year, Hour, and Minutes using the drop-down arrows for each.
3. Select **AM** or **PM** (selection toggles by clicking)
4. Select the desired date format using the **MMDDYY** drop-down arrow. Choose 12-hour (select the 12 Hour checkbox) or 24-hour format (uncheck the checkbox).
5. If Daylight Saving Time is used in the installation time zone, click **DST** and set the appropriate start and end DST month, weekend and hour. VAM will automatically adjust the time when Daylight Saving Time starts and ends.
6. Click **Apply** to save the settings.
7. A choice (checkmark = Yes; X = No) to copy the time to the control panel may appear. Select **Yes** or **No** as desired. Choosing "yes" sets the control panel to the time entered in VAM.

Set Up Email Notification

Users (and/or the installer) can receive email notifications when one or more selected system events or conditions occur.

NOTE: Email notification requires that the user has an active email address.

1. Click **Setup** then select **Email**.
2. Click **User SMTP** to assign the user's email server information. SMTP establishes the email server domain (the "from" address).
   a. Choose the email server name (email provider) from the drop-down menu. Choose from GMAIL, OUTLOOK, YAHOO, or Add New.
   b. Enter the email ID (user name) and password for the chosen email server.
   c. The Email Server and SMTP port number fields are automatically filled unless "Add New" was selected.
      If Add New selected, enter the appropriate SMTP and port number information (see your email provider for details).
   d. Click **Save**.
3. Click **Event 1** to define the event types and conditions that will trigger notifications to the chosen email address(es).
4. Enter up to four email address(es) to which Event 1 will send notifications.
5. Click **Save**.
6. Repeat steps 3 -5 for Events 2-4 if desired.

Set Up Remote Services (Total Connect™)

An AlarmNet Direct account is required to enable Total Connect, and a communication device must be connected to the VISTA® control panel.

1. Verify that the VAM is connected to the Internet via the network router.
2. Using AlarmNet Direct, enroll the communication device and VAM, and enable Total Connect usage. Select Yes at the "using VISTA Automation Module" (Yes /No) prompt. You will need the VAM MAC ID and CRC number, which can be found on a label on the back of the VAM or on its carton.
3. Open a Total Connect account for the user if an account does not already exist.
4. After a Total Connect account has been set up, the VAM must be reset (powered down and powered up).
5. Enable the desired automation devices to be controlled by Total Connect. See "Enabling Devices for Total Connect" section. After devices have been enabled for Total Connect, follow the Total Connect prompts to synchronize the data with VAM. Syncing is required before the enabled devices will display in Total Connect.

Enabling Devices for Total Connect

1. Click the **Setup** > **System** > **TC Server**
2. Click the **TC Enable** button to display the "Z-Wave Device Management For Total Connect" screen.
3. Select the device(s) to be enabled for Total Connect usage.
   NOTE: Some devices may need to be re-enabled after a software upgrade.
4. Click **Save** when done.
5. Follow the Total Connect prompts to synchronize the data with VAM. Syncing is required before the enabled devices will display in Total Connect.

NOTES: 1. Device IDs for Z-Wave devices could be different on VAM and Total Connect web pages.
   2. Total Connect supports the first 40 switches, the first 3 thermostats, and the first 4 door locks enrolled in VAM.

Adding Z-Wave Devices

> **EXISTING NETWORK NOTE:** Z-Wave products from other manufacturers can be included (added) into the VAM network. Z-Wave devices that are always powered can serve as repeaters regardless of manufacturer.

To add (include) Z-Wave devices in VAM, log in to the VAM home screen, then do the following:

Light, Switch, Outlet Modules
1. Install device according to the manufacturer's directions.
2. Click **Automation > Z-Wave Setup > Z-Wave Enroll / Add**.
3. Press the **Function Key** on the device; follow the on-screen messages until "Device added successfully".

Add a Door Lock
1. Assemble the Z-Wave door lock according to the manufacturer's instructions. Be sure the door lock orientation/handedness is correct.
2. Refer to the Door Lock's Instruction Guide and connect necessary cables, then install batteries.
3. Enroll the door lock within 5 feet of the VAM; refer to the Door Lock's Instruction Guide for procedure.

Note: Program a 4-digit user code in the control panel prior to programming that user code into the door lock.

4. Click **Automation > Z-Wave Setup> Z-Wave Enroll / Add**.
5. Program the selected user code from the panel.

Add a Honeywell Thermostat
1. Install thermostat according to the manufactures directions.
2. Click **Automation > Z-Wave Setup > Z-Wave Enroll /Add**; the screen displays a series of messages.

   If not using a Honeywell thermostat, enrollment procedure may vary. Refer to the Thermostat instructions.

3. On the Honeywell thermostat select **Thermostat**; set the "Time/Date" and follow the instructions in the thermostat Installation Guide for enrollment.
4. To complete, click **Done**.
5. Click **Exit** to return to normal operation.
6. To verify activation: on the VAM, click **Back**; wait 30 seconds. Click **Refresh**; the new device is displayed.

Adding Cameras
VAM supports up to 32 cameras.

IMPORTANT: Connect cameras t only when accessing VAM via the home router network.

If using existing (mounted) cameras, go to Step 4 below. If this is a first time setup, you will need to Discover/Configure the cameras prior to mounting and then follow the steps below.

1. Connect an Ethernet cable to the back of the camera (LAN); connect the opposite end to the Ethernet port on the router.
2. Apply power to the camera; wait for initial power-up.
3. Click **Multi-Media > Camera Setup**.
4. Click **Discover** to locate the camera. The screen displays "Discovering Cameras Please Wait…"

   Note: For best performance set video resolution to 320 x 240, 8 frames per sec., Normal quality.

5. Click the **Add** button if the camera information is not discovered automatically, to enter information manually.
6. To edit camera information, highlight the camera name and click the **Edit** button. Enter required information and then click **Save**.

Automation & Creating Scenes
The system can automatically activate various devices when certain events occur based on predefined Scenes. A scene consists of a trigger, an optional condition, and up to five actions. Up to 10 scenes can be defined.

Trigger: The event that triggers the programmed action(s).

Condition: An optional event that puts a condition on the trigger. Conditions cannot be set with the same category as the trigger. (ex., if setting a trigger event for security, you cannot use security as a condition).

Action: The device action(s) when the trigger event occurs.

1. Click **Automation > Scene Setup > Add Scene**.
2. Click **Scene Name**; enter a name.
3. Assign the desired "Condition," "Trigger," and "Action" for this Scene.

   After each selection click Save!

Critical Event Option
If Critical Event is selected for a trigger, the event will be stored in VAM's memory instead of the SD card. Up to two events can be stored in memory. When a third event occurs, the oldest event is replaced by the new event, and so on.

Creating Rooms & Groups
Rooms and groups are collections of Z-Wave devices that can be used when defining scenes.

Room: a defined collection of different types of Z-Wave devices (light modules, door locks, thermostat, etc.). Up to 50 rooms.

Group: a defined collection of the same type of Z-Wave devices (only light modules, or only door locks, etc.). Up to 20 Groups, each with up to five devices.

Create a Group
1. Click **Automation > Group Setup**.
2. Click the **Add** button and enter a Group Name > **GO**.
3. Choose the **Group Type** (Binary Switches, Dimmer Lights, Door Locks, Shades, Thermostats, Others) from the drop-down list.
4. Choose the device(s) to be part of this group from the drop-down list.
5. Click **Save**.

Create a Room
1. Click **Automation > Room Setup**.
2. Click the **Add** button and enter a Room Name > **GO**.
3. Select the device(s) to be part of this room from the drop-down list.
4. Click **Save**.

Removing All Z-Wave Devices
To remove all Z-Wave devices, do the following:

1. Click **Automation > Z-Wave Setup** to display the "Z-Wave Device Management" screen.
2. Click **Z-Wave Reset** to delete all devices from the controller.
3. Select **Yes**. The following message is displayed:

   This Z-WAVE controller is about to be factory defaulted and will lose all devices in the enrolled list. All Z-WAVE devices must be re-enrolled after this reset. Yes or No

Z-Wave Troubleshooting

- **Cannot add new device**
  Make sure the Z-Wave device is within range of the VAM. You may need to move the device closer to the VAM. Refer to the Z-Wave device Instruction Guide for proper range.

- **Device is within proper range but still is not included**
  1. At the VAM:
     a. Click the **Automation** button from the "Home" screen and then click the **Z-Wave Setup** button to display the "Z-Wave Device Management" screen.
     b. If the device does not appear on the screen, click the **Z-Wave Remove Device** button.
  2. At the Z-Wave device, press the **Function Key**. The screen will display a message "**Device Removed**".
  3. At the VAM, Include device again.

- **Highlighted device will not delete**
  When deleting a device, if the selected device remains on the screen, highlight the device name and click the **Removed Failed Device** button.

Compatible Z-Wave Devices

Z-Wave devices may vary; follow the instructions in the User Guide for your specific device. Refer to the table below for some of the compatible devices.

Door Locks
Yale Real Living Push Button Lever Lock
Yale Real Living Touchscreen Lever Lock
Yale Real Living Push Button Deadbolt Lock
Yale Real Living Touchscreen Deadbolt Lock
Schalge Link Deadbolt Lock
Schlage Link Lever Lock
Kwikset Smartcode Lever lock
Kwikset Smartcode Deadbolt Lock
Thermostats
Honeywell ECC
Wayne Dalton Zwave thermostat
Trane Zwave Thermostat
Appliance
HomeManageable Appliance Module
Wayne Dalton Small Appliance Module
GE Wireless Lighting Control Plug In Appliance Module
Lights
Leviton/ViziaRF+ Switches
Leviton/ViziaRF+ Dimmers
Leviton/ViziaRF+ Plug in Modules
GE Wireless Lighting Control Dimmers
GE Wireless Lighting Control Switches
GE Wireless Lighting Control Plug in Lamp Modules

Not all Z-wave devices have been tested and some features may produce unpredictable results.

Using VAM as a Secondary Controller

VAM can be used as a secondary controller when connected to another Z-Wave network.

1. Remove any Z-Wave devices previously included in VAM.

   Click **Automation** > **Z-Wave Setup** to display the Z–Wave Management screen, then click **Z-Wave Default** and select **Yes**.

2. Press the Z-Wave Primary button to switch VAM to secondary controller. The Z-Wave Primary icon changes to Z-Wave Secondary accordingly.

3. Start the inclusion process at the other network's primary controller (see controller's manual), then click the **Add Device** button in VAM's Z-Wave Management screen to add (include) VAM to the controller. To remove (exclude) VAM from the primary controller, start the exclusion process at the other network's primary controller, then click the **Remove Device** button in VAM.

Navigation & Menu Icons

To aid in the navigation through the VAM WIFI screens, a set of user-friendly icons has been provided.

ICON	ICON TITLE	FUNCTION
	"Automation"	Accesses the Z-Wave setup, Scene setup, and Room setup screens.
	"Security"	Accesses the "Security" screen.
	"Multi-Media"	Accesses the Camera fetaures.
	"Home"	Returns you to the "Home" screen.
	"Back"	Reverts to the last screen viewed.
	"Setup"	Accesses the Setup menus.
	Set Home Router	Accesses the "Set Home Router" screen
	Exit	Exits the VAM menu
	Switch Theme	Switch between normal and mobile view
	Save	used to save options
	TC Enable	used when enabled Z-Wave devices for Total Connect usage
	Z-Wave Setup	Accesses the Z-Wave management screen
	Z-Wave Enroll/Add	Add a Z-Wave device
	Scene Setup	Accesses the scene setup menu
	Add Scene	Add a scene
	Refresh	used to refresh the page
	Camera Setup	accesses the camera setup menu
	Camera Discover	used to "discover Wi-Fi cameras
	Add	add a camera
	Edit	edit a device name
	Z-Wave Primary	indicates primary controller
	Z-Wave Secondary	indicates secondary controller

Software Upgrades

Software upgrades may be available for this product. These upgrades can be installed manually, or you can set VAM to notify you that an upgrade is ready and have it automatically installed.

System Information

To view the current software version installed on your system, do the following: Click **Setup > System Info**.

Automatic Software Updates

To receive automatic remote updates, select the **Enable Remote Update** checkbox on the system information screen and install an SD card.

1. Click **Setup** > **System Info,** then select the **Enable Remote Upgrade** checkbox.
2. Make sure a blank SD card is installed (minimum 200 MB of available space is required.
3. When updates are available, the system will automatically update the system.

Manual Software Upgrades

Go to the Toolkit site located at:

http://www.tuxedotouchtoolkit.com/index.html to download the latest software to an SD card.

1. Copy the software upgrade file to the SD card.
2. Insert the SD card and recycle power on the VAM (or press the Reset button using a paper clip). The yellow Operation LED flashes during the upgrade process.
3. The LEDs show solid green and blue indicating the default/upgrade process is done.

Set Up Remote Access (Account Setup)

Remote access lets the user access VAM's menus directly via the Internet when away from home. The home router must first be configured for port forwarding. Refer to the router's instructions for details on port forwarding.

To set up a remote access log in, do the following:

1. Click **Setup** > **Account**.
2. Enter the desired user name and password. Passwords must be a minimum of 8 alphanumeric characters, and must include at least one uppercase, one lowercase, and one number.
3. Click **Save**. The new user is displayed.
   To clear a user's login, click the **CLEAR** button.

To access VAM remotely, use a web browser and VAM's network IP address to go to the login screen. Enter the assigned user name and password to open the main menu.

NOTE: Remote login is blocked after 3 failed attempts. To reset remote access, you must connect to VAM locally via the home router, then re-enable remote access. Click **Setup** > **Account**, then click the appropriate **Enable** button and click **Save**.

Options

IMPORTANT: This menu is intended for the installer only and should not be changed by the user.

Options include the following:

Normal mode: For use when VAM is connected to a VISTA control panel.

Demo mode: For use in the event a VISTA security system is unavailable. Selecting Demo mode disconnects communication between the VAM and the VISTA control panel, but otherwise VAM can be used to control Z-Wave devices and perform its other non-security related functions.

Z-Wave devices are identified by the Z-Wave logo and can be purchased from your local retailer.
Z-Wave® is a registered trademark Sigma Designs, Inc. and/or its subsidiaries.

DOCUMENTATION AND ONLINE SUPPORT

For the latest documentation and online support information, please go to:
http://www.security.honeywell.com/hsc/resources/MyWebTech/

WARRANTY

For the latest warranty information, please go to:
http://www.security.honeywell.com/hsc/resources/wa/

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