DIGITIZE®

VersAlarm

Installation & Operation Manual

PROPRIETARY NOTICE

AND

DISCLAIMER

DIGITIZE, INC.

158 EDISON ROAD

LAKE HOPATCONG, NJ 07849-2217

PH: (973) 663-1011

E-Mail: info@digitize-inc.com

Website: http://www.digitize-inc.com

This manual has been prepared by DIGITIZE, INC. for use by its licensees, distributors and customers. The information contained herein is the property of DIGITIZE, INC. and may not be copied, disclosed or reproduced, in whole or in part, without the prior written approval of DIGITIZE, INC. Any unauthorized disclosure to, or use of the enclosed information by, unauthorized third persons shall void any and all representations, warranties and obligations on the part of DIGITIZE, INC.

DIGITIZE, INC. reserves the right to make changes to the specifications and material contained herein without prior notice. The information and/or examples (including, but not limited to circuitry, wiring diagrams, programming, the operation or use shown) described in this manual are intended solely to illustrate the operating principles of the particular product. They are not a warranty, representation or guarantee that a particular example or use shown will perform in a particular situation. They are given for illustration purposes only. DIGITIZE, INC. shall not be responsible, nor does it represent, that any example of illustration will perform in a particular environment or practice unless it specifically makes a representation to that effect.

The material set forth herein is for informational purposes only, and DIGITIZE, INC. assumes no patent liability with respect to any information or illustrations contained herein.

FCC NOTICE

Table of Contents

List of Figures

1 Introduction

1.1 Purpose

The purpose of this manual is to inform the user on how to install, test, operate, and maintain a **VersAlarm Panel**.

Although the primary subject of this manual will be the **VersAlarm Panel**, the manual will also provide some information on the System 3505, Qnodes, and MicroMux Interface.

1.2 Scope

This document is intended as an introduction and tutorial on the installation and use of a **VersAlarm Panel**. The **VersAlarm Panel** was designed specifically for Fire and Security applications, therefore most of the examples and exercises here also deal with these applications.

This manual assumes the reader has a background in electronics. Furthermore, this manual assumes the reader is familiar with Fire panels, Ethernet interfaces and networks, and the Digitize System 3505.

1.3 System Organization

The manual is broken down into seven major areas of discussion for the **VersAlarm Panel**. They are:

- Introduction
- System Description
- Installation.
- Setup
- Operation
- Testing
- Maintenance

This page is intentionally blank.

2 Describing the System

Chapter 2, Describing the System will explain what a VersAlarm Panel is, how it is connected, setup, and what type of information it reports.

2.1 Description of VersAlarm Panel

The VersAlarm Panel is a supervised interface panel that communicates via Ethernet. The VersAlarm™ Panel can be interfaced to a Fire alarm control panel and provides 8 EOL zone inputs (three reserved to monitor AC, DC and Tamper) to monitor the panel relay outputs. Up to 80 characters of user text can be programmed for zone input using a standard WEB browser. Communications with the panel are via RJ45 Ethernet protocol.
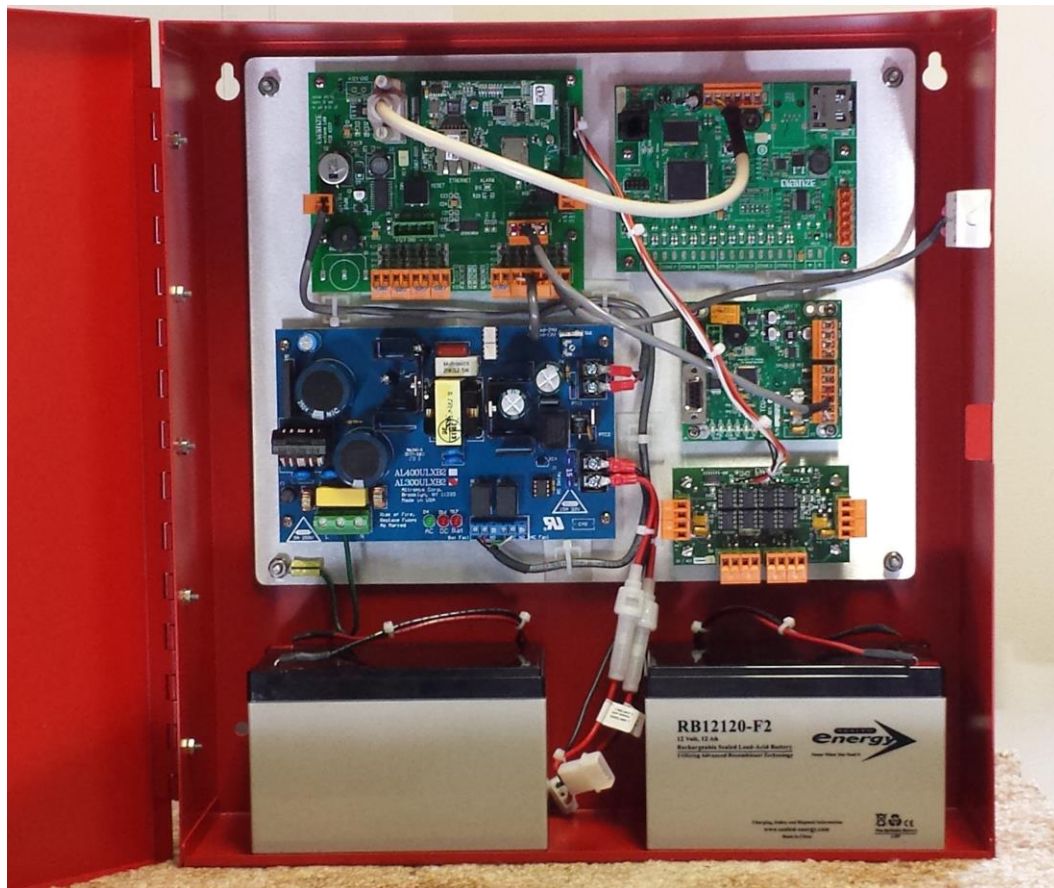
Figure 2-1, VersAlarm Panel with optional MicroMux, QNode, and RS-485 Octal Bd.

Ethernet Port

VersAlarm Bd.

5 EOL Zone Inputs (Available)

+12 vdc

Power Supply & Batteries

AC In
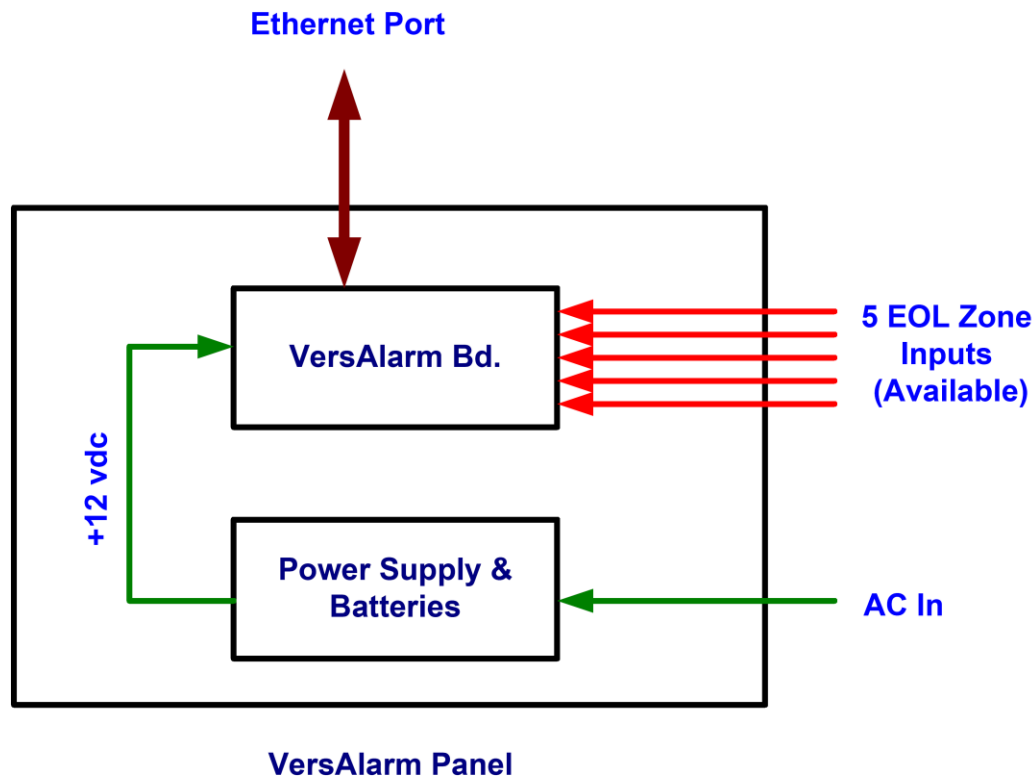
VersAlarm Panel

Figure 2-2, Typical VersAlarm Panel Configuration

The VersAlarm™ panel is powered by a 12vdc Power Supply/Charger. The supply AC, DC and panel tamper are connected to three of the zone inputs. The VersAlarm™ Panel only draws approx. 100 mA. at 12 vdc. The VersAlarm™ comes standard with 24 hours of Standby power and recharges the sealed Lead Acid battery in 48 hours. The VersAlarm™ panel can also be ordered with 72 hours of battery backup.

The panel is supplied in a red 14" x15" x 4" wall mount steel enclosure. The front door of the enclosure has a lock. A tamper signal is generated when the door is opened. User programming of the Digitize VersAlarm™ Panel can be performed remotely over the Ethernet connection. The programming is performed using via an easy-to-use web browser interface. Upgrades to the firmware can also be performed using the Ethernet connection.

The Digitize VersAlarm™ panel connects to a Digitize System 3505 that must be equipped with an AlarmLan™ option. The Panel can be programmed to report to up to 10 IP addresses (System 3505 units) which can be expanded beyond 10.
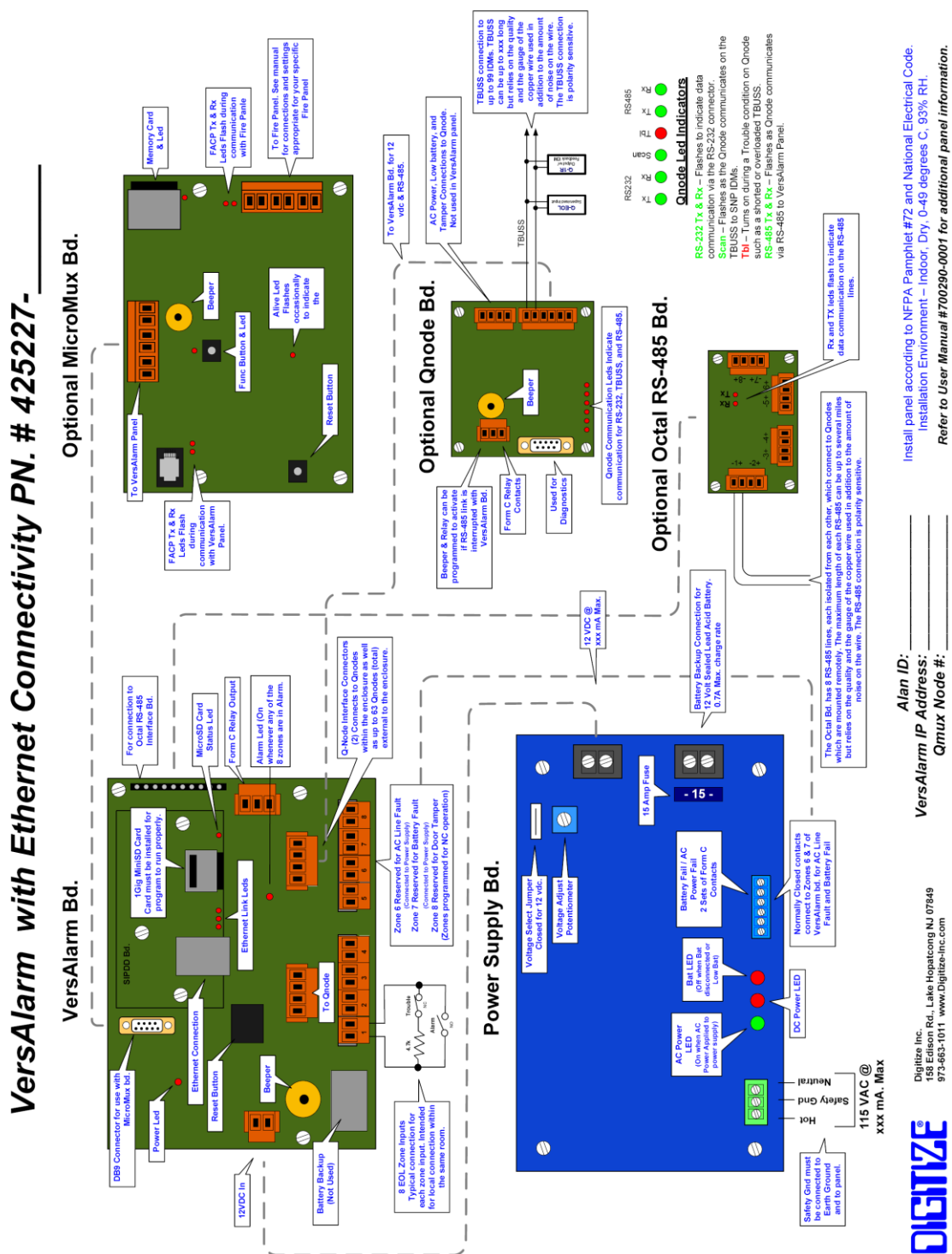
Figure 2-3, Inputs and Outputs for VersAlarm Panel

2.2 Optional Equipment

Optional equipment available for the VersAlarm Panel include Qnode Controller Board, Octal RS-485 Interface and the MicroMux Controller. Although each of the optional boards are described separately below, any combination can be added to a VersAlarm Panel at one time.

2.2.1 Optional Qnode Controller Board:

The Qnode Controller Board can be installed inside the panel adding up to 99 input and relay output IDMs up to 5000 feet from the panel. The IDMs communicate with the Qnode controller via a pair of copper wires.

Figure 2-4, Optional Qnode Controller

Up to 32 additional external Qnode Controllers can be connected to the VersAlarm Board each capable of 99 IDM inputs and outputs.

For more information on the Qnode Controller and IDMs, see cut sheet 750273-0001 and manual 700226-0001.

Ethernet Port

VersAlarm Bd.

5 EOL Zone Inputs (Available)

+12 vdc

+12 vdc   **RS-485**

T-Buss™, Supervised , 99 IDM's max.
Up to 5000 ft. long**

Qnode
(Optional)

Q-EOL
Supervised Input

Q-1R
Output w/
Feedback IDM

Power Supply & Batteries

AC In
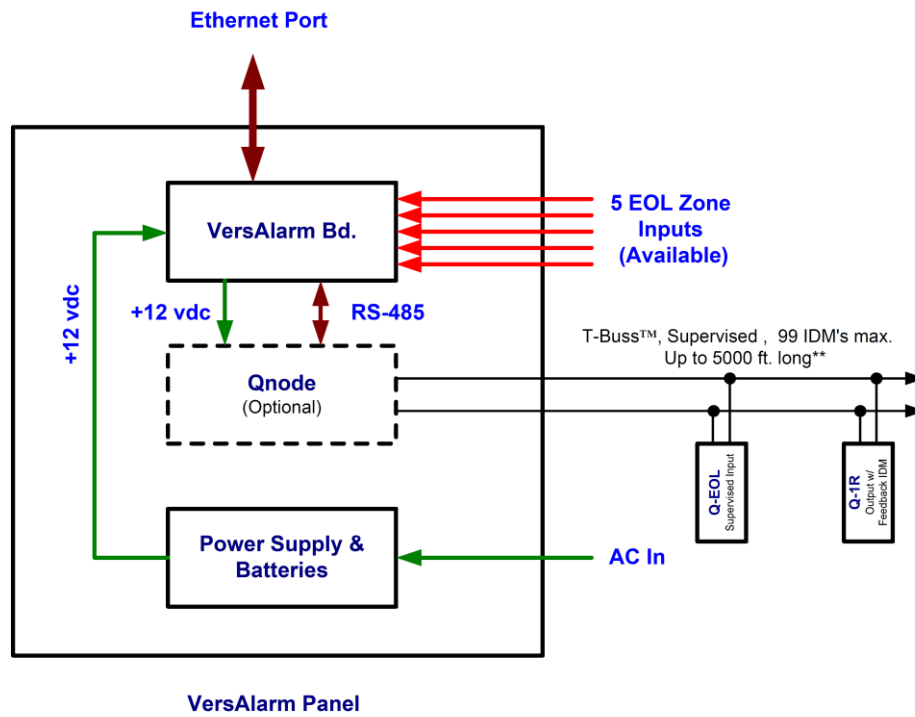
VersAlarm Panel

Figure 2-5, VersAlarm Panel with Optional Qnode Controller installed.

2.2.2 Octal RS-485 Interface Board

One Octal RS-485 Interface board can be added to a VersAlarm Panel. The Octal board provides 8 isolated RS-485 channels for connection to external Qnode Controller Panels (see above). The benefit of the Octal RS-485 board is that an interruption of data on one channel (wire short for example) will not effect the remaining 7 seven channels.
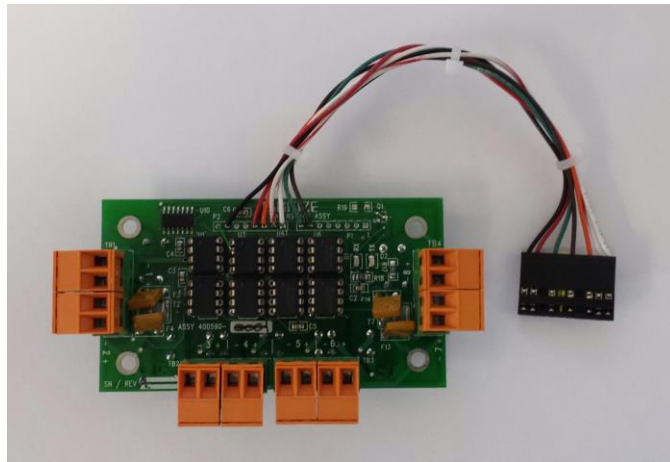
Figure 2-6, Octal RS-485 Interface Board

For more information on the Octal Rs-485 Interface Board, see 750611-0001.
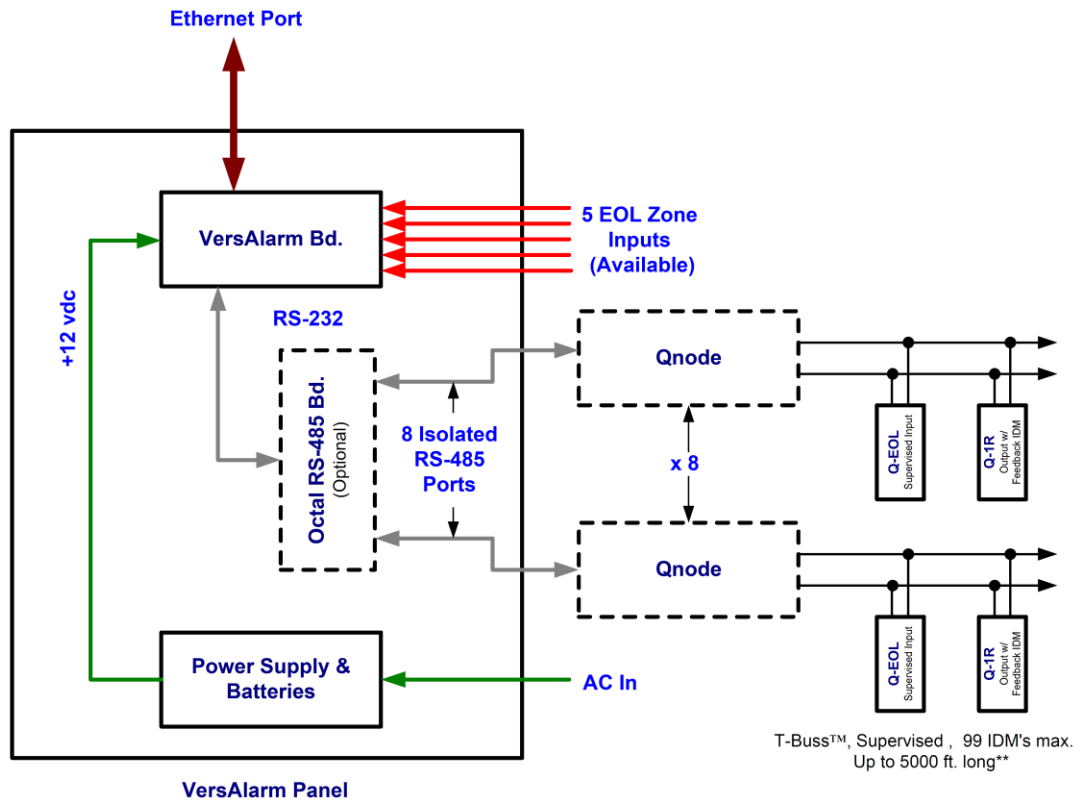
Figure 2-7, VersAlarm Panel w/ Optional Octal RS-485 Interface installed.

2.2.3 MicroMux Controller Board

The MicroMux Controller is an Addressable Fire Panel Interface that can be mounted inside the VersAlarm Panel. The MicroMux receives the zone specific alarm messages programmed in the addressable fire panel and uses the Ethernet connection to transmit them to a System 3505 or Remote Annunciator.
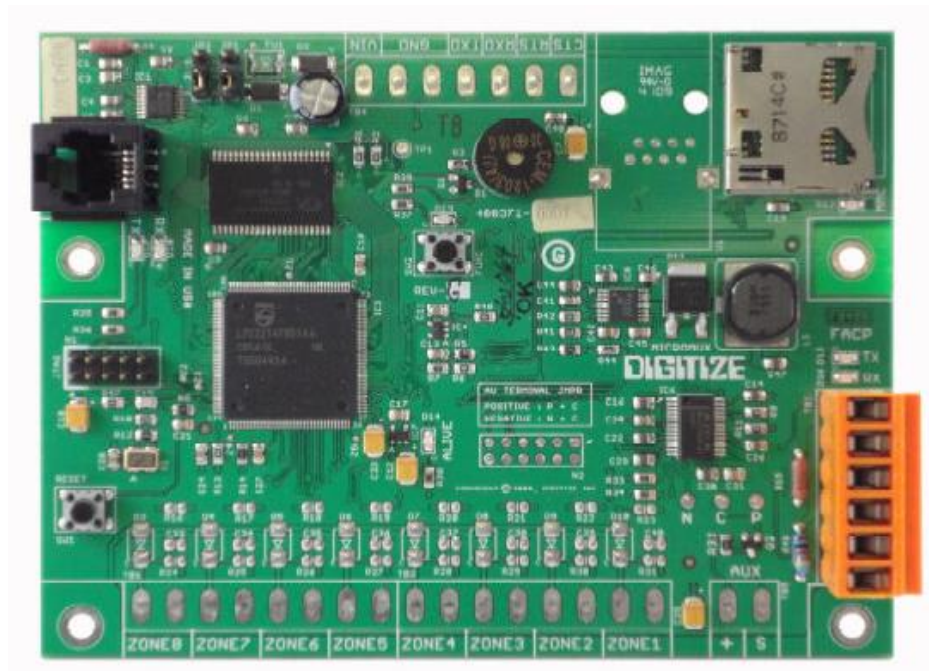
Figure 2-8, Optional MicroMux Board

The configuration software for the MicroMux is built in. To access the MicroMux configurations, you will connect a computer to the MicroMux FACP RS-232 Port and will run a terminal program similar to HyperTerminal.

The computer will connect to the MicroMux interface via the FACP RS-232 port. This port on the MicroMux uses a terminal block connector. The connection from the computer will need to be wired to the port on the MicroMux.

The following is the current list of Fire Panels which the MicroMux can interface with. Contact the factory if you need to interface with a Fire Panel that is not on the list.

Table 2-1, MicroMux Standalone FACPs

FCI	7100, E3, 7200 (5x)
Notifier	320, 640, 2020, 3030
EST	EST 2, EST 3, IRC-3
Simplex Grinnell	4100, 4100U, 4100ES, 4010, 4010ES, 4020, 4120
Mircom	FX2000
Gamewell	6xx, 602, 630/650, 610

Table 2-2, MicroMux Networked FACPs

FCI	7100, E3
Notifier	NCA-2
EST	EST 2, EST 3
Simplex Grinnell	4100, 4100U, 4100ES, 4010, 4010ES, 4020, 4120
Gamewell	602

For more information on the MicroMux Controller Board, see cut sheet #750603-0001 or Manual #700276-0001.
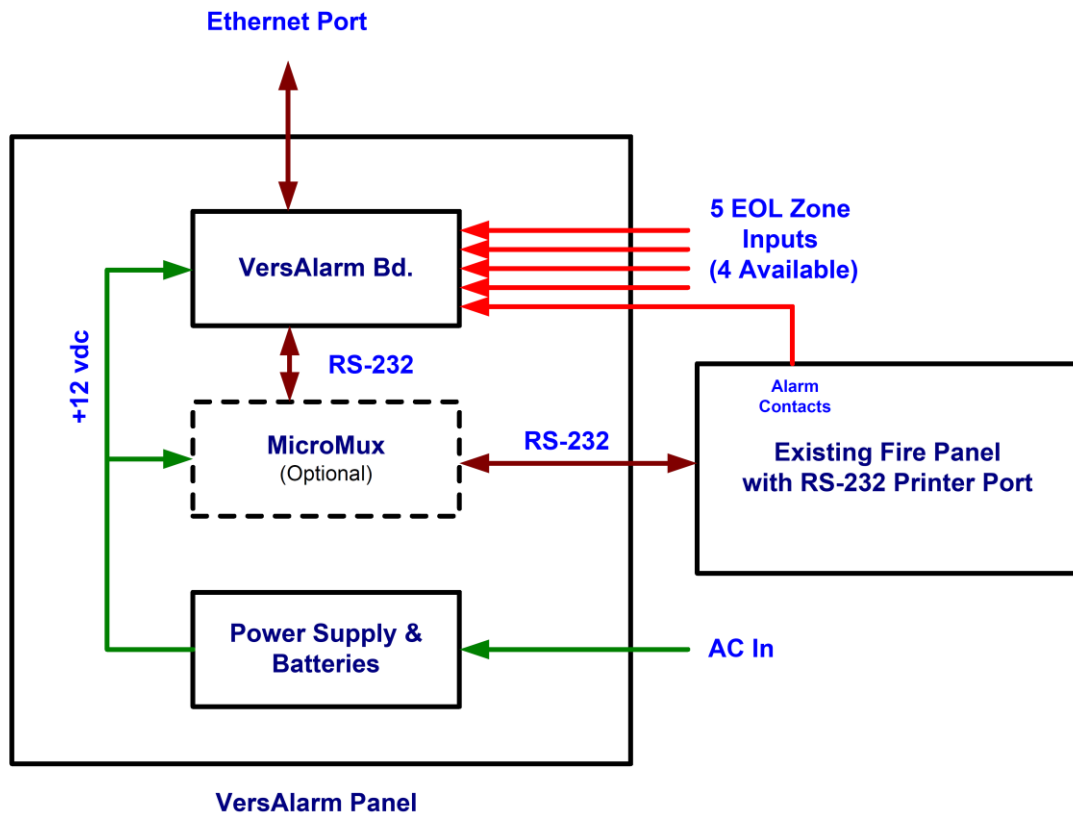
Figure 2-9, VersAlarm Panel w/ Optional MicroMux Controller installed.

2.3 Specifications

POWER SPECS

Input Voltage:	Input 115VAC 60Hz, 3.5 amp. Input fuse rated @ 3.5 amp/250V.
Power Supply Output:	12VDC @ 2.5 amp total supply current. Filtered and electronically regulated output. Short circuit and thermal overload protection
Battery Backup:	Built-in charger for sealed lead acid or gel type batteries. Automatic switch over to stand-by battery when AC fails. Maximum charge current 0.7 amp.
Power Supply Supervision:	AC Fail supervision (form "C" contacts). Low battery supervision (form "C" contacts). Battery presence supervision (form "C" contacts).

VISUAL INDICATORS

Power Supply Bd.	**AC input:** Green LED, on when AC power applied to Power Supply board., **DC output:** Red LED, on when DC output on **Battery LED**: Red LED, On when battery connected indicators
VersAlarm Bd.	**Power:** Green LED, on when board is powered. **Alarm:** Red LED, on when any of the 8 EOL zone inputs is in Alarm.
VersAlarm Embedded Microcontroller Board (mounted on VersAlarm Board)	**LINK/ACT:** Green LED, displays Ethernet port link status. On when connected, flashes with Ethernet activity. **FDX/COL:** Yellow LED, Ethernet Port status, on for full-duplex connection, flashes if there are packet collisions. **SPEED:** Yellow LED, on for 100Base-T Ethernet connection. **SD Card Status:** Yellow Led, on when card is installed.
Octal RS-485 Board	**Rx:** Green Led, Flashes when a Qnode panel is answering back to the VersAlarm panel on the channel that the VersAlarm has selected. **Tx:** Green led, Flashes when the VersAlarm panel communicates with remote Qnode panels.

OUTPUTS

Relay:	Form C Contact rated 1 amp @ 24 volts dc, on the VersAlarm board, can be programmed to actuate on the loss of communication with System 3505 or Remote Annunciator.
Audible Indicator:	Audible indicator on the VersAlarm board can be programmed to annunciate (locally) the loss of communication with System 3505 or Remote Annunciator.

CONSTRUCTION

Dimensions:	Height: 14" Width: 15" Depth: 4"
Material:	Steel and Aluminum Enclosure, "Piano" style door hinge, and a baked enamel finish.

TEMPERATURE

Ambient Temperature Range:	0°C to 49°C (32°F to 120°F)
Ambient Humidity:	93% at 32°C (90°F) Maximum

3 Installation

Chapter 3, Installation will explain the steps to physically install a **VersAlarm Panel**.

3.1 Handling

3.1.1 Unpacking and Inspection

Before opening, inspect the shipping container for unusual damage. Unpack the unit and inspect it for broken component leads and bent pins. Make sure each component is tight in its socket. If your inspection reveals any physical damage, retain the packing material and contact the carrier immediately. Each unit has been thoroughly inspected prior to shipment.

CAUTION!! **DO NOT TOUCH** the circuitry on the board during installation as static discharge may damage components.

3.2 Components that make up VersAlarm Panel.

The following items are included with a VersAlarm Panel:

1. Enclosure

2. Electronics Panel

3. Manual

4. Batteries

3.3 Installing the VersAlarm Panel.

The following steps are required to install the VersAlarm Panel:

1. The installation area for the VersAlarm panel should be: well lit, clean, easily accessible and free from extremes of temperature and humidity. Installers, please refer to Section 2, under "TEMPERATURE AND HUMIDITY" for the

maximum operating conditions. This product is intended for installation in a dry, indoor environment.

2. Remove the electronics panel from the enclosure when installing the enclosure on the wall. Install electronics panel inside the enclosure. Connect Earth Ground Strap from electronics panel to the enclosure.

3. Install tamper switch wire harness and connect to zone 8 on VersAlarm bd.

3.4 Wiring

CONDUIT CONNECTIONS

Connect all wiring conduit to the cabinet in accordance with applicable National Electric Code, State and Local building code requirements.

FIELD WIRING

Pull all power feeds and field wiring through separate conduit and into the cabinet. Never place the power feeds and field wiring in the same conduit. All field wiring must be tested for grounds, induced voltages, open and shorted circuits. All field wiring must be free of these conditions prior to connecting them to peripheral devices or the VersAlarm Bd.

4 Setting up the System

Chapter 4, Setup will explain how to configure the options on the **VersAlarm Panel**.

The standard **VersAlarm Panel** is composed of two circuit boards. The Power Supply and the VersAlarm Bd.

The Power Supply requires some presetting of several jumpers and switches. Setting up the VersAlarm Bd requires a computer with a Ethernet connection and a web browser. The user should have administrative rights to the computer as it will probably require reassigning the IP address of the computer in order to connect to the VersAlarm board.

4.1 Power Supply Board
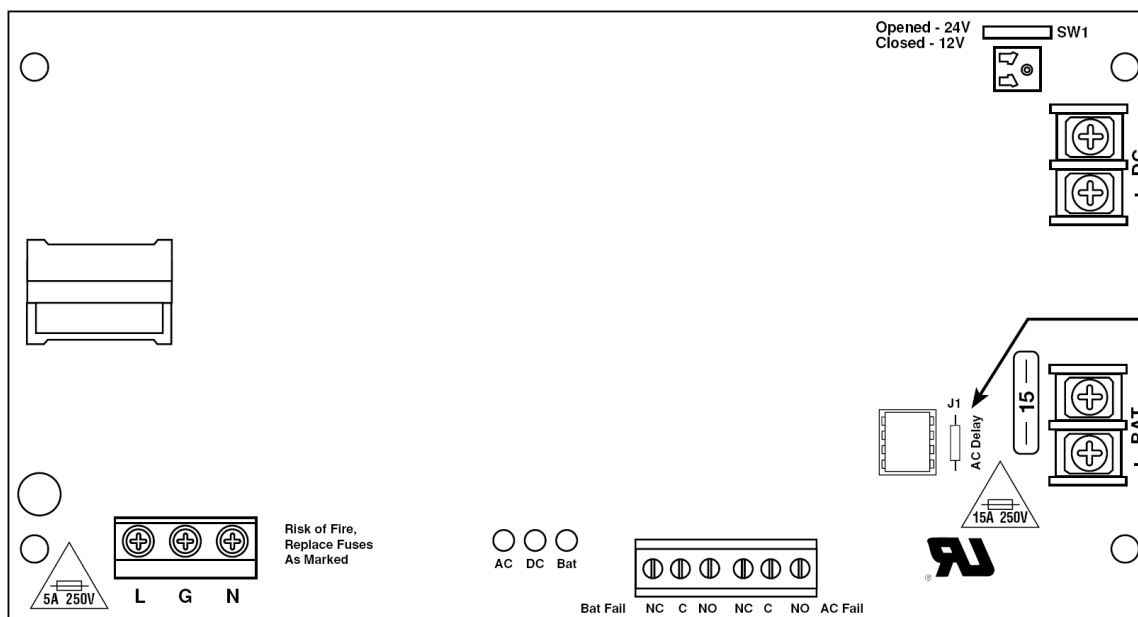
The Power Supply Board provides the VersAlarm panel and optional boards with battery backed up 12 vdc. It also charges and maintains the batteries.

The power supply provides two sets of Form C relay contacts for reporting loss of AC power and Low or Missing Battery. These relay contacts are connected to zones 6 and 7 on the VersAlarm panel for reporting these trouble conditions. Both of these relays are normally energized and de-energize to report the associated trouble condition.

The power supply has three Leds. The AC Led (Green) indicates the presence of the 115 VAC input voltage when lit. If off, the power supply has no AC voltage. The DC Led

(Red) indicates the presence of the 12 vdc output voltage when lit. Off indicates no dc output. The Bat Led (Red) indicates that a charged battery is connected to the power supply. If the Bat Led is not on, then either the battery is low or missing.

The power supply board is preset to the following settings when assembled with a VersAlarm panel. The settings are:

Voltage Selection (SW1) – SW1 sets the output voltage for the power supply to either 12 or 24 vdc. This jumper must always be set to the closed position to avoid damage to the VersAlarm panel. The potentiometer next to SW1 is adjusted to 13.2 vdc output

<div align="center">

Default value: SW1 Closed – 12 vdc.

</div>

AC Delay (J1) – The power supply normally reports a loss of AC supply within 1 minute. Cutting J1 can delay the reporting of an loss of AC to up to 6 hours.

<div align="center">

Default value: J1 Installed – 1 Minute

</div>

4.2 VersAlarm Bd Setup

Setting up the VersAlarm Bd requires a computer with an Ethernet connection and a web browser. The user should have administrative rights to the computer as it will probably require reassigning the IP address of the computer in order to connect to the VersAlarm board. Changing the settings on the VersAlarm Bd. can be performed in the presence of the panel or from some remote location that has access to the same network that the VersAlarm board is connected to.
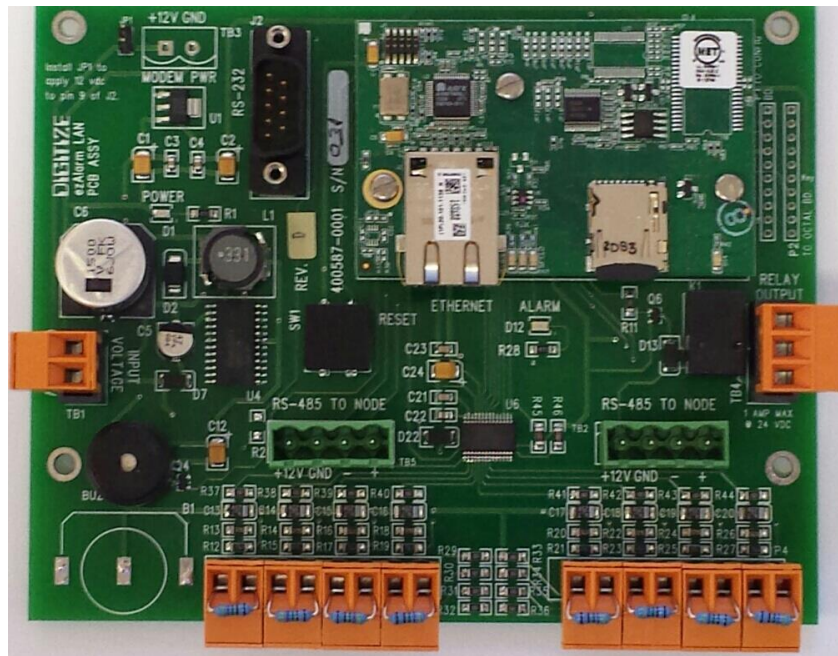
Figure 4-1, VersAlarm Controller Board

The following lists outlines the steps required to connect to and setup the VersAlarm Bd.:

1. Need to understand Ethernet connections and IP addresses.

2. Set computer to IP address on the same subnet as the VersAlarm board being programmed.

3. Connect to the network via a switch or connect directly to the VersAlarm panel by removing the Ethernet connector in the panel and replacing it with a crossover cable connected directly to your computer.

4. Connect to the VersAlarm Bd. via a web browser.

5. Login into the VersAlarm Bd.

6. Modify the settings in the VersAlarm.

4.2.1 Understanding Ethernet Connections and IP Addresses

It is paramount that you have a fundamental understanding of computer networks in order to perform the tasks outlined further in the chapter. You need to understand such terms as IP address, subnet mask, Ethernet switch, Cross Over cables, etc. You may also require the help of the IP personal at the site for passwords and admission on to their networks.

4.2.2 Set Computer IP Address

1. The computer that is being used to program the VersAlarm panel must have an IP address that is on the same subnet as the VersAlarm panel. For example, the default IP address for the VersAlarm panel is 192.168.2.21. In order for the computer to communicate with the VersAlarm board it must have an IP address from 192.168.2.1 to 192.168.2.254, excluding 21 (already used by the VersAlarm board).

2. The computer that is being used to program the VersAlarm panel must have a subnet mask as the VersAlarm panel. For example, the default subnet mask for the VersAlarm panel is 255.255.255.0. In order for the computer to communicate with the VersAlarm board it must have the same subnet mask.

4.2.3 Connect to the VersAlarm Bd.

There are two ways to connect your computer to the VersAlarm panel.

1. In person. Remove the Ethernet cable from the VersAlarm panel and connect a cross over cable from the panel directly to your computer. Alternately, you can use a local switch and connect both devices using standard Ethernet cables.

2. Remotely. You are going to connect to a network that has a connection to the VersAlarm panel and program the panel from a remote location. This one may be more involved and may require the assistance of the local network managers for gateway information, etc. This can be very beneficial when changing a large quantity of panels. Best if you confirm connections locally first, then try connecting remotely (At least for the first time).

4.2.4 Login into VersAlarm Bd.

Run Internet Explorer, then enter **192.168.2.21**, then press Enter.

This will bring up the VersAlarm Board's login page. The factory default user name is DIGI (all caps), and the default password is 2222.
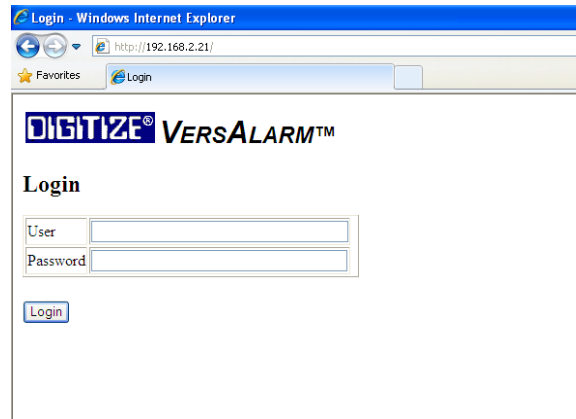
Figure 4-2, VersAlarm Login Screen

The screen should now open up with the Index in the left column and the Network Options on the Main Screen as shown below.
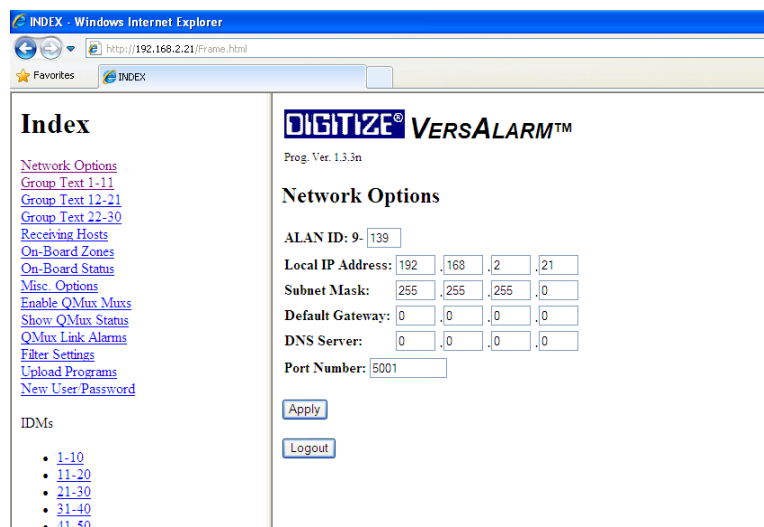
Figure 4-3, Opening Screen

The Index on the Left of the screen shows the list Topics that can be modified on the VersAlarm board. The following sections will cover these topics in detail.

Important! You need to know what the IP address is on the VersAlarm in order to connect and change and view settings. A tag is connected to the VersAlarm board when delivered from the factory with the IP address. If you do not know what the existing IP address is, contact the factory for the procedure to scan the IP number from the VersAlarm card.

4.2.5 Updating Network Options

The first selection on the Index is Network Options. Click on the link in the index and the following page will appear.

Figure 4-4, Network Options Page

As the title suggests, this page deals with all Ethernet settings necessary to get the VersAlarm communicating properly over the network it is connected to.

CAUTION!! **You need to understand Ethernet networks in order to correctly program these settings correctly.**

Local IP Address: This is the IP address for the VersAlarm panel.

Subnet Mask: This is the subnet mask for the VersAlarm panel.

Default Gateway: This is the Default gateway for the VersAlarm panel.

DNS Server: The DNS Server is not utilized for the VersAlarm panel as all IPP addresses are static. This must be 0.0.0.0.

Port Number: All Digitize devices uses port 5001 as default. It should only be changed if this creates a conflict with the network being used. If it is modified, all of the Digitize devices on that network will have to have the new port number to communicate.

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.6 Updating Group Text

Group Text always a user to enter messages that are used over and over in the panel into just one location and later when programming zone or IDM specific information to use a pull down tab to point to the group text that applies, saving time and typing.

This is especially useful if the panel is monitoring several locations. Each of the locations information can be entered in a group text position, then be used over and over as zone specific information is entered in to the VersAlarm panel.

Figure 4-5, Group Text

Panel Location Text: Enter the name of the location for the VersAlarm Panel. This will be included with any of the messages reported from the VersAlarm Panel when reporting to the System 3505 or Remote Annunciator.

Group Text: Enter up to 9 different Group Text messages.

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.7 Receiving Hosts

Any time the VersAlarm card has information to send out; it checks the list of Receiving Hosts. It can be setup that it sends the information out to all hosts on the list or programmed that it sends the information to the #1 position. If that host is down, it would then search down through the list looking for a host available to accept the information.

Figure 4-6, Receiving Hosts

Up to 10 receiving Hosts can be entered.

1. Enter the IP address of each A-LAN device (Receive Host) monitored by the VersAlarm Card.

2. The Text ID is generally left blank. Once the VersAlarm begins communicating with the Host, the Host will then respond with Text ID information identifying itself.

3. Check the box labeled "Addresses 2-10 are fallback recipients" to limit transmission to simply the first host on the list. The remaining Hosts will be fallbacks if the first Host is unavailable. Uncheck, all of the hosts will receive all of the messages sent from the VersAlarm board.

4. Click the Apply button to save the information entered.

4.2.8 On Board Zone Configurations

This page pertains to the 8 zones located on the VersAlarm board. Three of the zones (6, 7, & 8) are used to report AC Power Fault, Battery Fault and Tamper. Zones 1 to 5 are unused and available.

Figure 4-7, On Board Zone Configurations

Config - Zones are preset to be Disabled (except 6, 7, & 8). Use the pull down tab to select if the zone is Disabled, Normally Open, or Normally Closed. Zones 6 (Battery Fault), Zone 7 (AC Power Fault), and Zone 8 (Tamper) are preset to Normally Closed.

> *Normally Open*: The contacts that are being monitored are normally open and close when in an Alarm state.

> *Normally Closed*: The contacts that are being monitored are normally closed and open when in an Alarm state

Text – Enter zone specific text information. This will be displayed on the System 3505 or Remote Annunciator when the zone is active.

Priority – Use the pull down tab to select the Priority setting for the Zone. Zones with higher Priority settings will be annunciated at the Head End first over zones with lower Priorities.

Generic Text – Use the pull down tab to select Generic Zone Text (see section 4.2.6).

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.9 On Board Zone Status

Show the current status on 8 zones on the VersAlarm board. Green indicates secure. Red indicates alarm. Yellow indicates trouble. Gray indicates the zone is Disabled.

This is a static page and will not automatically update the zone status. Click **Refresh** to update the page and zone status.
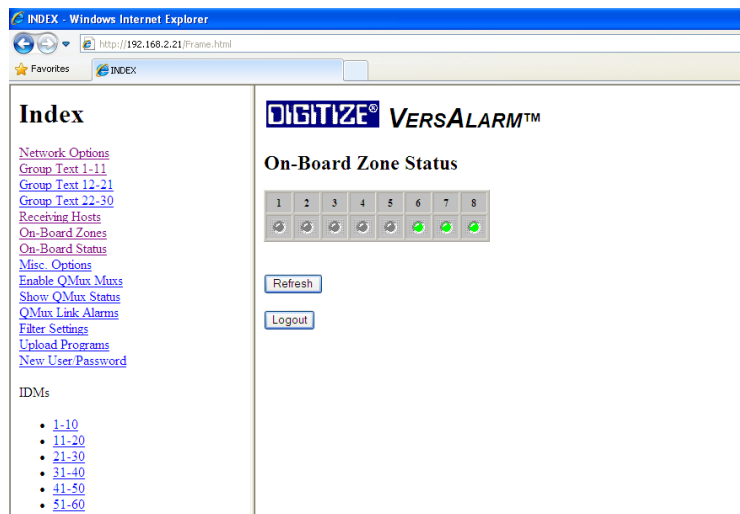
Figure 4-8, On Board Zone Status

4.2.10 Link Fail Options

This page programs how the VersAlarm board will react if communications with the System 3505 (or Remote Annunciator) is interrupted.
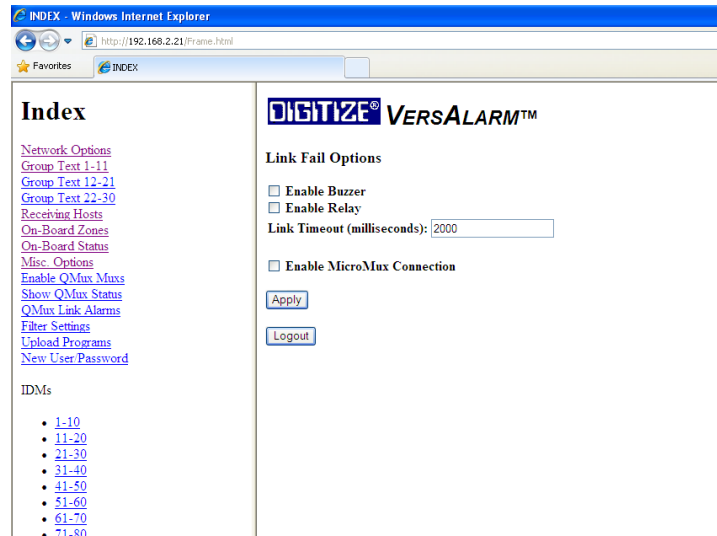
Figure 4-9, Link Fail Options

Enable Buzzer: When selected the buzzer will sound when communications have been interrupted longer than the Link Timeout.

Enable Relay: When selected the relay will activate when communications have been interrupted longer than the Link Timeout.

Link Timeout: The time (in milliseconds) that must elapse with no communications before the panel declares a Communication Failure.

Enable MicroMux Connection: This is selected when an optional MicroMux board is installed in the VersAlarm Panel.

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.11 QMux Enable / Set Channel

This page is used to enable QMux nodes connected to the VersAlarm Panel and select how they will communicate with the VersAlarm card. This list includes all QMux Nodes connected to the VersAlarm card both inside the panel and external panels.

Figure 4-10, QMux Enable / Set Channel

Default setting for all is None. Select the pull down handle for the QMux installed.

None – QMux not installed.

Port 0 – Selected if Octal RS-485 Interface card not installed.

Channel 1 - 8 – Selected when Octal RS-485 Interface card installed. Select which channel the QMux Node is connected through.

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.12 QMux Status

This page displays the current status of a QMux Node.
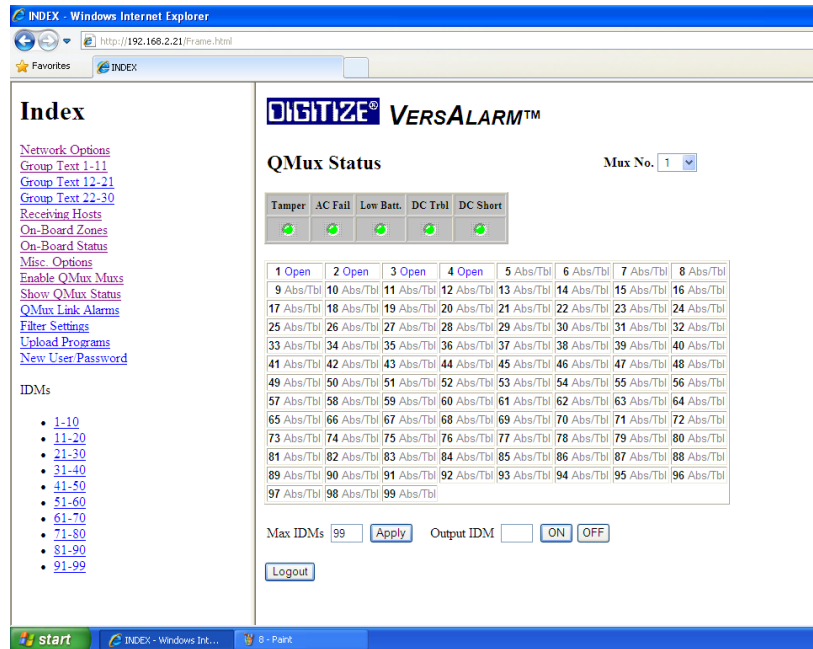
Figure 4-11, QMux Status Page

Select the QMux Node that you wish to view using the "Mux No." pull down tab. This display will show the status of the selected Node. Green indicates OK (Secure), Yellow indicates Trouble.

> *DC Trbl* – Indicates a low voltage situation detected on the TBUSS, possibly wires to long or too many IDM devices on the wire. The IDMs may still be communicating.
>
> *DC Short* – Indicates a short has been detected on the TBUSS and must be corrected in order for the IDMs to communicate.

Max IDMs – Enter the highest number assigned to a IDM connected to the QMux Node, then hit Apply. The page will then display the status of the IDMs connected to the QMux. Figure 4-12 shows the status of 63 IDMs.

Output IDM – Enter the number of an IDM that is installed and has output capability, then select On or OFF to turn that output on and off.

Normal is secure. Closed means the contacts being monitored are closed. Trouble indicates the IDMs are in trouble and require attention. Abs/Tbl means the IDM is not installed.

4.2.13 QMux Link Alarms

This page describes how a QMux Node will react locally to Communication Link failures with the VersAlarm panel. If an interruption to communication to the VersAlarm panel exceeds the time programmed in the Link Timeout, the QMux may enable a local beeper or relay contact, if selected.

Note: IDMs that are programmed to flash an Led will stop flashing when the communication between the Qnode and the VersAlarm panel is interrupted.
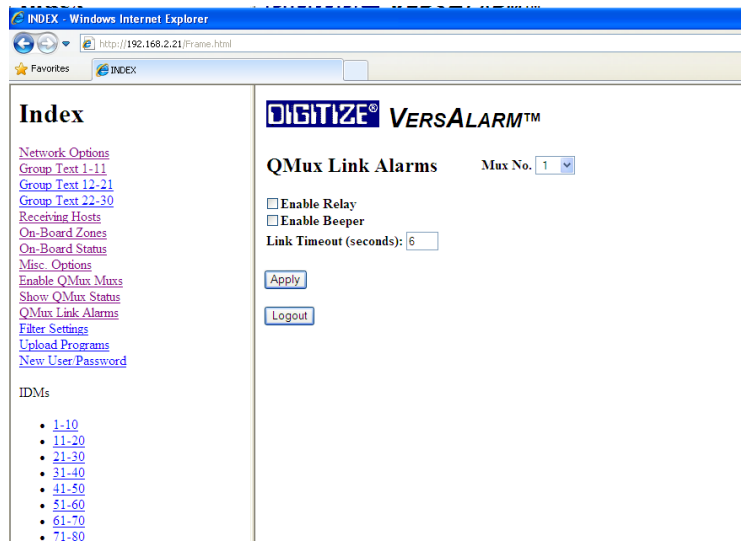
Figure 4-12, QMux Link Alarms

Select the QMux Node that you wish to view using the "Mux No." pull down tab.

Enable Relay: When selected the relay will activate when communications have been interrupted longer than the Link Timeout.

Enable Beeper: When selected the beeper will sound when communications have been interrupted longer than the Link Timeout.

Link Timeout: The time (in seconds) that must elapse with no communications before the panel declares a Communication Failure.

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.14 Filter Settings

This page displays the filter settings for the IDMs attached to a QMux Node. In some cases, an IDM could be monitoring a noisy contact or the TBUSS could be installed in an area with a large amount of induced noise. By adjusting the filter settings for a specific IDM, you can add extra "reads" that is required from that IDM before allowing it to report to the System 3505.

Figure 4-13, Filter Settings

Select the QMux Node that you wish to view using the "Mux No." pull down tab.

Max IDMs *– Enter the highest number assigned to a IDM connected to the QMux Node, then hit Apply. The page will then display the Filter Setting status of the IDMs connected to the QMux.*

Each IDM is polled and controlled in 1.6 mSec, however it takes a minimum of three polls to detect a change of state or to activate a relay. Thus allowing some dead time at the end of each poll cycle, if you have 60 IDM devices in a poll, you can poll and control each IDM connected to the node ten times in one second. More IDMs will poll less times in one second and fewer IDM will poll more times per second. You should keep this in mind when setting the filter selection. The factory default of "0" actually requires that the Qnode poll the IDM three times with the same state prior to changing the state of the device. Likewise turning a relay ON, requires three polls in the same desired state. Relay activation is not affected by the filter setting. The ON or OFF command always takes three consistent polls to change the relay or O.C Transistor output. A filter setting of 1 requires 8 polls, 2 equals 16 polls and so on to a maximum setting of 15 for 120 polls.

The default value for all IDMs is 0. Enter a number from 0 to 15. 0 represents the least number of reads and the quickest response to a change in the IDM status. 15 represents

the highest number a reads (guaranteeing a true status change), but the slowest response to the change in IDM status.

When all settings are complete, be sure to hit the **Apply Filters** button before moving away from this page.

4.2.15 Upload Programs

This section explains the procedure for uploading new firmware into the VersAlarm board.
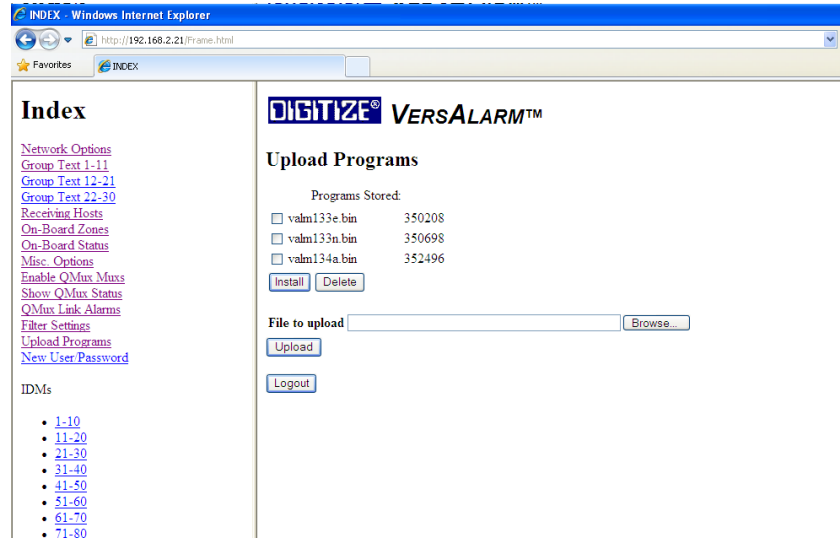
Figure 4-14, Upload Programs

As with most all computer operated devices, there may come a time that a new version of the firmware that runs the VersAlarm card is released by Digitize. The following procedure explains how to successfully update the firmware:

1. Load the firmware file received from Digitize onto the computer that will be connected to the VersAlarm card.

2. Connect to the VersAlarm via the Ethernet, login and navigate to the Upload programs page.

3. Click on Browse and point to the new firmware file, then click on Upload. The new file will be transferred to the VersAlarm card and displayed in the section titled "Programs Stored".

4. Select the new file and click on Install. The VersAlarm card will go offline for up to 30 seconds as it installs the firmware and reboots.

5. After the VersAlarm card reboots, the user will be required to re-login into the VersAlarm card to continue to configure the panel.

4.2.16 IDM Configurations

The IDMs configurations are maintained on this page. All of the IDMs connected to all of the QMux Nodes are maintained and updated on this page. When an IDM is added to the system, it needs to be configured as the default setting for IDMs is disabled.

Some background on IDMs, TBUSS, and QNodes:

IDMs – ID modules are placed remotely in the field and communicate over a pair of wires (TBUSS) with a Q-Mux Node controller. The IDM's are powered by the same wires it uses to communicate. Many different types of ID modules are available with both input and output capabilities. The Q-Mux system is designed so that as many 99 IDM's can be connected on the same pair of wires (TBUSS).

For more information and details concerning the QMux components that be connected to a VersAlarm panel, see manual #700226-000, Q-Mux System Manual.
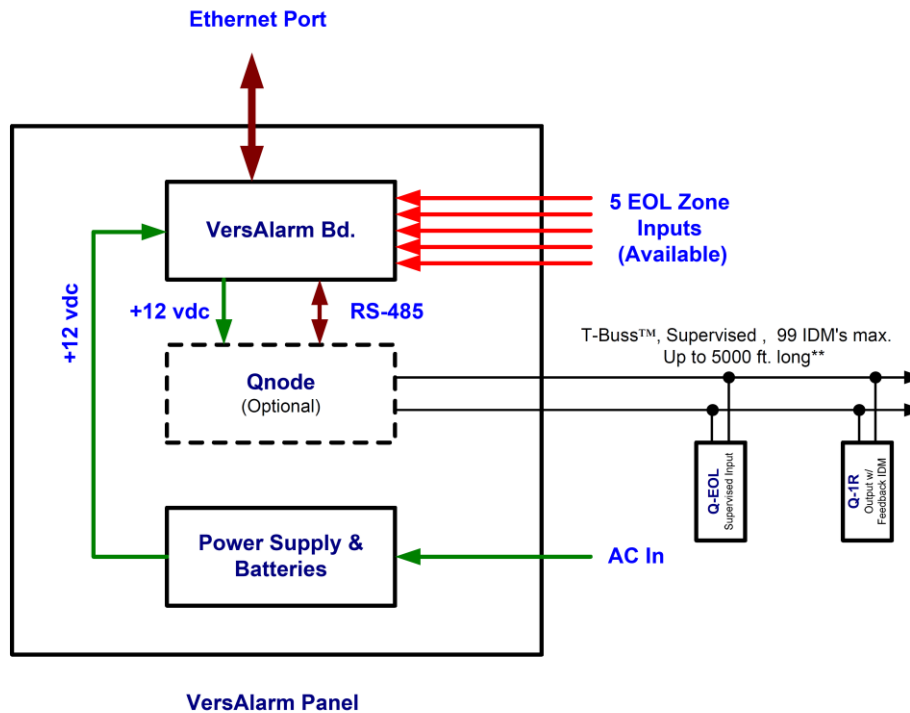
Figure 4-15, Q-EOL & Q-1R connected to a VersAlarm Panel via the T-Buss.

Figure 4-16, IDM Configuration

The default setting for all IDMs is Disabled. Any IDM installed on the system will require the following setup.

Select the QMux Node that you wish to view using the "Mux No." pull down tab.

Config - IDMs are preset to be Disabled. Use the pull down tab to select if the IDM is Disabled, Normally Open, Normally Closed or Relay.

Normally Open: The contacts that are being monitored are normally open and close when in an Alarm state.

Normally Closed: The contacts that are being monitored are normally closed and open when in an Alarm state.

Text – Enter IDM specific text information. This will be displayed on the System 3505 or Remote Annunciator when the IDM is active.

Priority – Use the pull down tab to select the Priority setting for the IDM. IDMs with higher Priority settings will be annunciated at the Head End first over IDMs with lower Priorities.
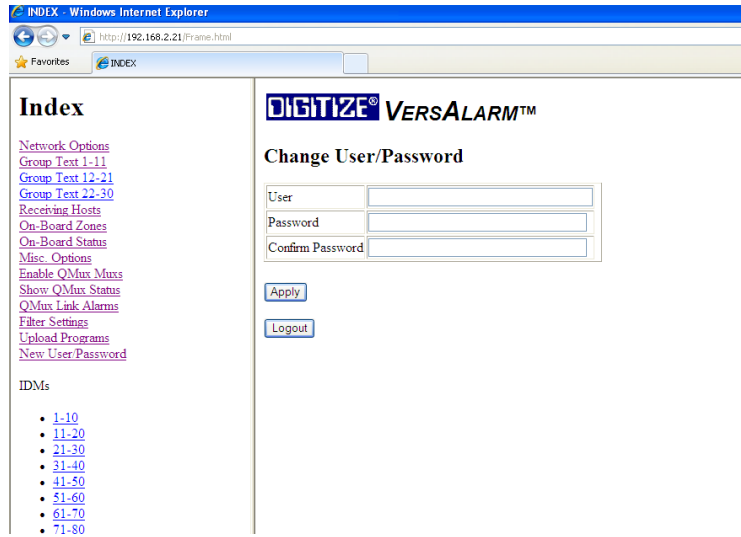
Generic Text – Use the pull down tab to select Generic Zone Text (see section 4.2.6).

When all settings are complete, be sure to hit the **Apply** button before moving away from this page.

4.2.17 Change User/Password

It is important to reassign the User and Password for the VersAlarm panel to something other than the factory default settings.

Enter the Username and password, then hit Apply.

Figure 4-17, Change Password

5 Setting up a MicroMux

Chapter 5, Setting up a MicroMux will explain how to connect and configure a MicroMux board in a **VersAlarm Panel.**

5.1 Connecting a MicroMux board to Addressable Fire Panel

Important!! In order to maintain the **ANSI / UL 864** rating of this product, it is mandatory that one zone of the Intellitize Transceiver is connected directly to the Alarm Relay Contacts of the Fire Panel being monitored. The RS-232 connection from the MicroMux to the Fire Panel is an Ancillary Connection. It is also recommended that the Trouble Relay Contacts of the Fire panel are also connected to a zone on the Intellitize Transceiver.

There are three connections that need to be installed between the VersAlarm panel and the fire panel. They are:

1. Connect zone 1 on the VersAlarm Panel to the Alarm Relay on the Fire Panel.

2. Connect zone 2 on the VersAlarm Panel to the Trouble Relay on the Fire Panel.

3. Connect the RS-232 port on the MicroMux to the output port on the Fire Panel.

5.2 Setting up the Fire Panel

Depending on which fire panel is being interfaced to the MicroMux panel will determine how much preparation needs to be done. The Major areas of setup for a fire panel are:

- Setting up the fire panel Printer Port

- Interface cable between the fire panel and the MicroMux Bd.

- Is the Fire Panel networked to other file panels or Standalone?

- Any optional settings in the fire panel that may need to be activated.

See Section 5.6 for important settings on each manufacturer's fire panel.

5.3 Setups in the MicroMux

The configuration software for the MicroMux is built in. To access the MicroMux configurations, you will connect a computer to the MicroMux FACP RS-232 Port and will run a terminal program similar to HyperTerminal.

Any computer with a terminal program like HyperTerminal and a RS-232 port will probably work fine. Many newer computers no longer come with a RS-232 port, so in that case, you will need to obtain a USB to RS-232 adapter.

The computer will connect to the MicroMux interface via the FACP RS-232 port. This port on the MicroMux uses a terminal block connector. The connection from the computer will need to be wired to the port on the MicroMux. Use the Table 5-1 below for the required connections.

Some tips for connecting to the MicroMux:

1. You can use an old DB-9 RS-232 cable and cut it in half. Use the cut cable to wire to the MicroMux port.

2. Obtain an extra connector plug. Then you can make a permanent cable and keep it for setting up the MicroMuxs. Just unplug the cable going to the fire panel and plug in the programming cable.

3. Load the software into the computer (if necessary) and make the interface cable well in advance of when it will be needed. Test them all out on a bench with a MicroMux board to confirm they are working. That way, when you visit the panel in the field, there won't be any delays trying to get the configuration to work.

Table 5-1, Interface Cable Connections

PC - DB9 Female	MicroMux - TB3
Pin 5 (Ground)	SG
Pin 2 (RX)	TX
Pin 3 (TX)	RX

The procedure for configuration of the MicroMux was developed and tested using HyperTerminal.

1. Start HyperTerminal.

2. Create a name, select an icon, and click OK.
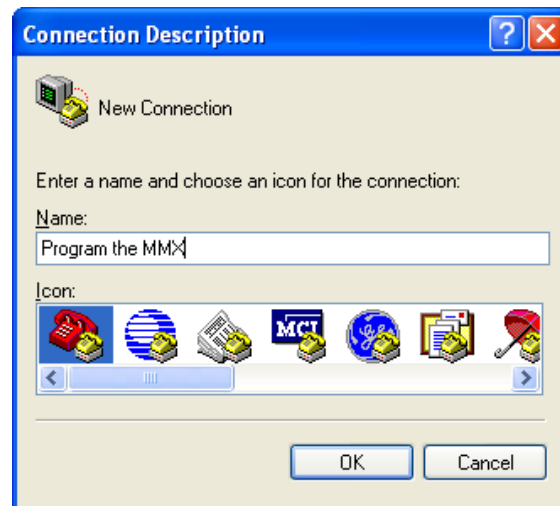
3. Select the Com port on your PC.
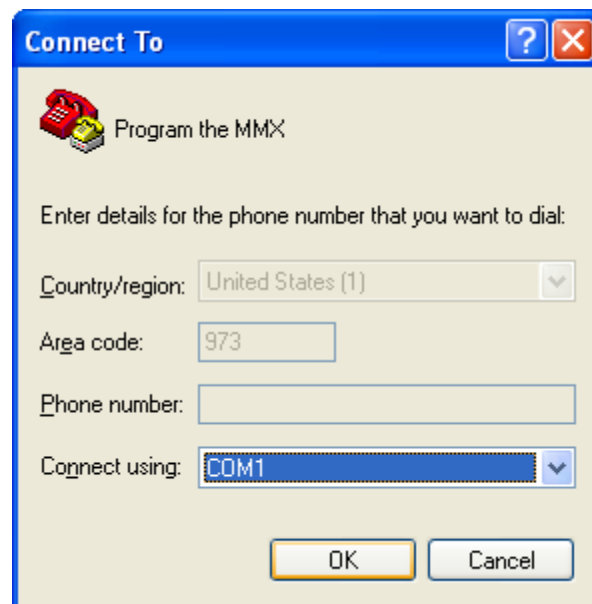
4. Set the Com Port settings. 19200, 8, N, 1, Flow control None, click OK.
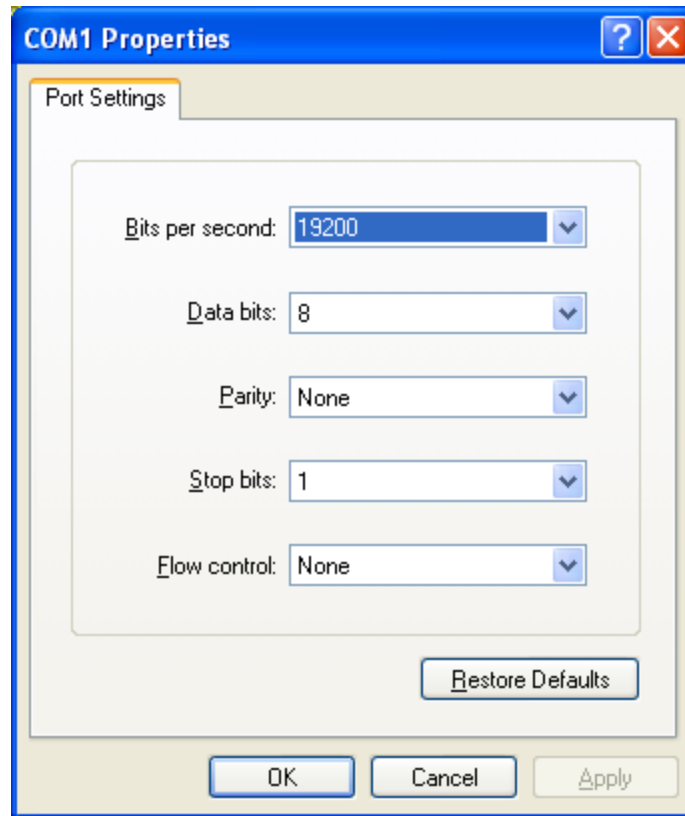
A blank HyperTerminal screen should appear.
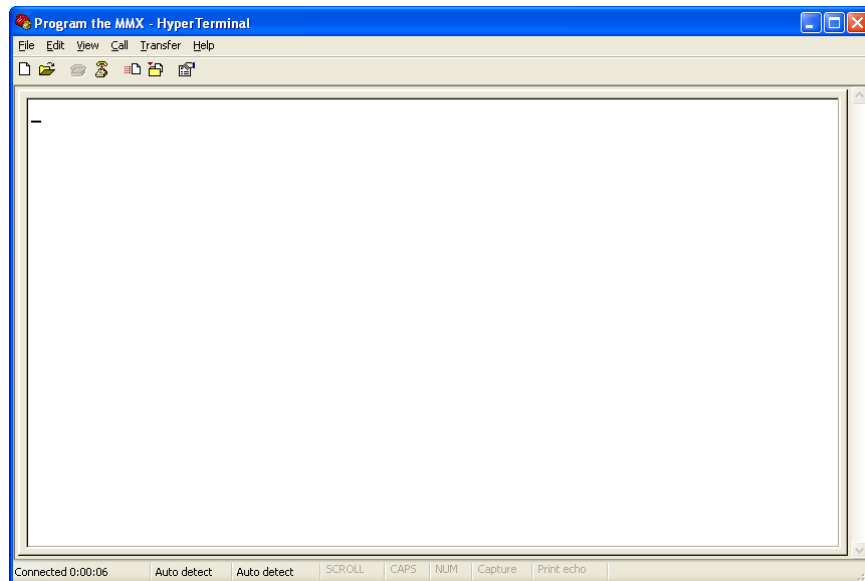
5. Make sure the MicroMux board is powered up.

6. Press and continue to hold the Function Button and then press the Reset button. The MicroMux board should beep 3 times. After it beeps 3 times you can release the Function button. The PC should now display the MicroMux Setup programming screen, Main Menu.

```
            MicroMux version 2.3  -- Main Menu
        Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

                             Q) Quit without saving changes.

  1) Panel type .......................: FCI 7100
     MMX software release .............: 011
  2) HOST RS232 Port ..................: 4800,N,8,1,F
  3) FACP RS232 Port ..................: 9600,N,8,1,-
  4) Network or Standalone panel ......: Standalone
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: ---
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: Yes
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values


Enter the choice (item letter):
```

5.4 Main Menu Selections

Refer to the main menu, shown above, as needed through the remainder of the discussion on menu selection.

5.4.1 PANEL TYPE.

This field determines which fire panel the MicroMux will interface with. By typing the number 1, then pressing enter, a new sub-menu will appear. The user may make a different selection using the steps described previously, or simply type Q, then enter, to quit and return to the main menu.

```
                    Select model of the PANEL

                      (command: Quit)

               Current selection is: FCI 7100

        1) Production Test (r8)        2) Diagnose Panel (r9)
        3) Edwards EST2 (r9)           4) Edwards EST3 (r11)
        5) Edwards IRC3 (r10)          6) FCI 7100 (r11)
        7) FCI 7200 (r10)             8) FCI E3 (r9)
        9) FireCom LSN2000 *          10) Gamewell 600 Series (r12)
        11) Mircom FX2000 (r10)        12) Notifier 640 (r11)
        13) Notifier 2020 (r9)         14) Notifier 3030 (r11)
        15) Notifier NCA2 (r11)        16) Simplex 4010 *
        17) Simplex 4020/4100U (r11)   18) Spectronics MX *
        19) Autocall TFX 800 *

        * Contact factory for availability.
        Software revisions are given inside (parenthesis).
        Revisions of other programs: loader (r17), setup (r17),


Choose the PANEL model by number: _
```

Type the number of the fire panel to which the MicroMux will be configured, and then press Enter. For example, type the number 6, and then press enter.

After "enter" key has been pressed, the screen will indicate that the selection has changed.

 Write or Quit. Type the letter W to Write (or save) the FACP selection; then press enter to continue on to the main configuration menu for the Fire Panel just selected. Press Q to quit (or abort) the selection process and then press enter to return to the main menu.

Fire Panels that are starred (*) are not on the SD card and currently not available to be selected.

5.4.2 HOST232 PORT

This field is for the RS-232 Settings between the MicroMux and the Intellitize Panel. These settings are made automatically when you select the fire panel and should not be changed in most situations. By typing the number 2, then pressing enter, a new sub-menu will appear. Settings specific to the Host RS232 can be changed here:

```
                 Serial parameters for HOST RS232 connection
               (This is the connection to the Subscriber Port)
                             (command: Quit)

              HOST RS232 is currently set to: 4800,N,8,1,F

              A) 300 baud                    G) 9600 baud
              B) 600 baud                    H) 19200 baud
              C) 1200 baud                   I) 38400 baud
              D) 2400 baud                   J) 57600 baud
              F) 4800 baud

              1) 1 stop bits                 2) 2 stop bits

              7) 7 bit character             8) 8 bit character

              O) Odd parity                  E) Even parity
              N) No parity

              L) Enable Hardware (RTS/CTS) flow control
              M) Disable Hardware (RTS/CTS) flow control



Choose the HOST settings: █
```

The user may select:

Baud Rate:	Selections A-J will reset the Baud rate of the Host connection; changes should be made with caution.
Stop Bits:	1 or 2 stop bits by typing the appropriate numeric choice followed by Enter.
Character Size:	7 or 8 bit characters by typing the appropriate numeric choice followed by Enter.
Parity:	Parity type (or no parity) by typing the appropriate letter choice (N, E, or O) followed by Enter.
Handshaking:	Select whether handshaking is enabled or disabled.

Note: All settings for the Host and Panel RS232s are set to coordinated factory defaults contingent upon the FACP interface ordered. Care should be used in changing any settings.

5.4.3 PANEL232 PORT.

Settings specific to the fire panel's RS232 communications port can be modified by typing the number 3, then Enter.

```
File  Edit  View  Scrollback  Bookmarks  Settings  Help
              Serial parameters for PANEL232 connection
                (This is the connection to the PANEL)
                         (command: Quit)

          PANEL232 is currently set to: 4800,E,8,1,-

          A) 300 baud              G) 9600 baud
          B) 600 baud              H) 19200 baud
          C) 1200 baud             I) 38400 baud
          D) 2400 baud             J) 57600 baud
          F) 4800 baud

          1) 1 stop bits           2) 2 stop bits

          7) 7 bit character       8) 8 bit character

          O) odd parity            E) even parity
          N) no parity

          L) use CTS handshake     M) use no flow control



     Choose the PANEL232 settings: █
```

The user may select:

Baud Rate:	Selections A-J will reset the Baud rate of the Host connection; changes should be made with caution.
Stop Bits:	1 or 2 stop bits by typing the appropriate numeric choice followed by Enter.
Character Size:	7 or 8 bit characters by typing the appropriate numeric choice followed by Enter.
Parity:	Parity type (or no parity) by typing the appropriate letter choice (N, E, or O) followed by Enter.
Handshaking:	Select whether handshaking is enabled or disabled.

5.4.4 Network or Standalone panel

This feature indicates what type of panel the MicroMux will interface with, Networked or Standalone. Type the number 4, and then press enter to change the setting.

Note: The MicroMux panel can be purchased as a Standalone or Networked panel. A Standalone MicroMux can only be set to Standalone. A Networked MicroMux can be set to both Standalone and Network.

5.4.5 Zones

This feature is not used at this time.

5.4.6 Limit text to 48 characters

Chop long user text messages. The factory default setting is No. Setting this feature to Yes allows the MMX to truncate user text messages. Type the number 6, and then press enter.

5.4.7 Simplex to process U and C reports.

This feature only pertains to the Simplex fire panel interface. When set to "No", the MicroMux will ignore when U and C reports are sent from the fire panel. When set to "Yes", the MicroMux will process the U and C reports from the fire panel.

Type the letter "7", and then press enter to toggle the setting between Yes and No.

5.4.8 Gamewell 6x0 Text Order

This feature only pertains to Gamewell 6x0 panels. It determines the order for the account number and user text when displayed on the System 3505. "**No**" will display the information as it is reported from the Gamewell fire panel with the Account number first followed by the user text. Selecting "**Yes**" will reverse the order; the panel text will be displayed first followed by the account number.

To advance to the preferred setting, type the number 8, and then press enter. Repeat until the preferred protocol is displayed.

5.4.9 Protocol for Host RS232 port.

The factory default is Digitize MicroMux 0. Alternative protocols include INTELLITIZE Intellinet, Eight bit Universal, and Serial Strings. To advance to the preferred setting, type the letter 9, and then press enter. Repeat until the preferred protocol is displayed.

The default setting should not be changed. The MMX will not communicate with the Subscriber board if this is changed.

5.4.10 Panel has RS232 Handshake Supv

The fire panel selected has Handshake Supervision on the RS-232 connection when set to Yes. This is automatically set when you select the type of fire panel. In most cases, this should not be changed. Type the letter "B", and then press enter to toggle the setting between Yes and No.

5.4.11 Send Each Trouble Individually

This setting will determine if each of the panel troubles is considered a separate event (Each Trouble) at the System 3505 or will be grouped together (Group Trouble).

Each Trouble: When set to Yes, the operator will see each Trouble and will have to acknowledge them individually (without exception) at the System 3505.

Global Trouble: The MicroMux will send a single fault indication that on or more faults exist at the FACP to be logged by the System 3505. Important exceptions, such as AC failure and RS-232 communications (and others based upon the FACP) are not reported as a Global Troubles, but rather uniquely to the System 3505. The operator will see only that they have one or more Troubles at the FACP (though each Trouble can still be viewed individually in the fault log), and that global report of Trouble will be acknowledged.

Setting to **"Yes"** will send each trouble individually, **"No"** will group the trouble messages together at the 3505. Type the letter "C", and then press enter to toggle the setting between Yes and No.

5.4.12 Reset serial Ports to default values.

Type the letter R, (this is not case sensitive), and then press enter. This will reset the settings for the assigned fire panel to factory default.

5.5 Setups in the System 3505

Refer to the System **3505 Installation & Operation Manual, Digitize PN 700248-0002**, requarding setup information for the System 3505 Receiver.

5.6 Fire Panels

Fire Panels explains what is required to properly configure a Fire Panel to work with a MicroMux Interface Bd.

This chapter contains a list of the fire panels that the MicroMux has been tested with up to this point. Each section will cover in detail the following criteria for each fire panel:

- Fire Panel Firmware Version
- Interface cable
- Fire Panel Settings
- Optional fire panel equipment required.
- Format of data

IMPORTANT! In order to maintain the ANSI/UL 864 rating of this product, it is mandatory that one zone of the Intellitize Panel is connected directly to the Alarm Relay Contacts of the Fire Panel being monitored. The RS-232 connection from the MicroMux to the Fire Panel is an Ancillary Connection.

IMPORTANT! The user must test every device connected to the FACP whenever the MicroMux is installed or a program revision is changed on the MicroMux, SYSTEM 3505 or FACP. The user must verify that the SYSTEM 3505 provides the proper display of the event. If an automation system is used, proper operation should be verified at the automation system as well.

IMPORTANT! Using user text messages directly from the FACP may not provide specific device location. For instance, every building may use the FACP generic message 'SMOKE DETECTOR-LOBBY AREA'. Digitize recommends programming generic and zone specific messages into the SYSTEM 3505.

5.6.1 EST-2

The following items are required for the MicroMux Panel to successfully interface to an EST-2 Fire Panel:

Standalone / Network	Standalone & Network

Figure 5-1, Programming screen for EST-2 Panel

```
CHANGED                    MicroMux version 2.3  -- Main Menu
            Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.    Q) Quit without saving changes.

  1) Panel type ......................: Edwards EST2
     MMX software release ............: 009
  2) HOST RS232 Port .................: 4800,N,8,1,F
  3) FACP RS232 Port .................: 4800,E,8,1,-
  4) Network or Standalone panel .....: Standalone
  5) Zones ...........................: ---
  6) Limit text to 48 characters......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order..........: ---
  9) Protocol for HOST RS232 port ....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv...: Yes
  C) Send Each Trouble Individually...: No
  R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring an EST-2 Fire Panel:

Table 5-2, EST-2 Interface Cable

Signals on EST-2, TB6		Signals on MicroMux, TB3 Terminal Block Connector	
TXD	Txd	**RX**	Receive Data
RXD	Rxd	**TX**	Transmit Data
COM	Gnd	**SG**	Signal Ground

REPORTING TO SYSTEM 3505

The Edwards System Technology, Inc. panel does not send alarm verification to the serial port; therefore alarm verification is not processed by the SYSTEM 3505. Even though utility (i.e. type of board installed, etc.) and contact functions are sent to the MicroMux, they are not processed by the SYSTEM 3505. The FACP will always send proper information that is processed by the SYSTEM 3505, in addition to the contact function that describes the event.

REPORTING PRIORITES

The MicroMux supports a multilevel prioritization of events, essentially an ALARM, 3 types of Troubles and a Secure.

Condition	Priority	Type
ALARM	1	alarm
TROUBLE	6	trouble
VERIFYING	7	trouble
SECURE	8	restore

On the EST2 implementation, any FACP condition that contains the text "SUP" is assigned to SUPERVISORY; any condition that contains "VRF" is assigned to VERIFYING. All other text is treated normally as expected.

5.6.2 EST-3

The following items are required for the MicroMux Panel to successfully interface to an EST-3 Fire Panel:

Standalone / Network	Standalone & Network
Special Settings Required	**IMPORTANT!** The Edwards System Technology, Inc. representative must activate all of the conditions that the user would like reported via the MicroMux to the System 3505, (i.e. fire alarms, supervisories, trouble conditions, etc.). CDR-3 / Printer Port settings are as follows: 4800 Baud, No Parity, 8 Bits, 1 Stop Bit.

Figure 5-2, Programming screen for EST-3 Panel

```
CHANGED               MicroMux version 2.3  -- Main Menu
           Serial Number: FFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.     Q) Quit without saving changes.

  1) Panel type ......................: Edwards EST3
     MMX software release ............: 011
  2) HOST RS232 Port .................: 4800,N,8,1,F
  3) FACP RS232 Port .................: 4800,E,8,1,-
  4) Network or Standalone panel .....: Standalone
  5) Zones ...........................: ---
  6) Limit text to 48 characters......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order..........: ---
  9) Protocol for HOST RS232 port ....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: Yes
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring an EST-3 Fire Panel:

Table 5-3, EST-3 Interface Cable

Signals on EST-3, TB2		Signals on MicroMux, TB3 Terminal Block Connector	
TX1	Txd	**RX**	Receive Data
RX1	Rxd	**TX**	Transmit Data
COM1	Gnd	**SG**	Signal Ground

REPORTING TO SYSTEM 3505

The Edwards System Technology, Inc. panel does not send alarm verification to the serial port; therefore alarm verification is not processed by the SYSTEM 3505. Even though utility (i.e. type of board installed, etc.) and contact functions are sent to the MicroMux, they are not processed by the SYSTEM 3505. The FACP will always send proper information that is processed by the SYSTEM 3505, in addition to the contact function that describes the event.

REPORTING PRIORITES

The MicroMux supports a multilevel prioritization of events, essentially an ALARM, 3 types of Troubles and a Secure.

Condition	Priority	Type
ALARM	1	alarm
TROUBLE	6	trouble
VERIFYING	7	trouble
SECURE	8	restore

On the EST3 implementation, any FACP condition that contains the text "SUP" is assigned to SUPERVISORY; any condition that contains "VRF" is assigned to VERIFYING. All other text is treated normally as expected.

NETWORK ADDRESS SETTINGS

When using a networked version of the EST-3 program, follow the rules indicated above. The maximum number of networked EST-3 panels that can be monitored are 31, i.e. EST-3 panel #1 to #31.

FACP CARD NUMBERS

Numbers 97, 98, or 99 cannot be installing on the EST-3 system card. The MicroMux uses these card numbers to report faults / events peculiar to the MicroMux itself.

5.6.3 IRC3

The following items are required for the MicroMux Panel to successfully interface to an IRC3 Fire Panel:

Standalone / Network	Standalone
Special Settings Required	**IMPORTANT!** The Edwards System Technology, Inc. representative must activate all of the conditions that the user would like reported via the MicroMux to the System 3505, (i.e. fire alarms, supervisories, trouble conditions, etc.). CDR-3 / Printer Port settings are as follows: 2400 Baud, Even Parity, 8 Bits, 1 Stop Bit.

Figure 5-3, Programming screen for IRC-3 Panel

```
CHANGED              MicroMux version 2.3  -- Main Menu
          Serial Number: FFFFFFFFFFF   Site Number: FFFFFFFFFFFD

 W) Write configuration and quit.    Q) Quit without saving changes.

 1) Panel type ......................: Edwards IRC3
    MMX software release .............: 010
 2) HOST RS232 Port ..................: 4800,N,8,1,F
 3) FACP RS232 Port ..................: 2400,E,8,1,-
 4) Network or Standalone panel ......: ---
 5) Zones ............................: ---
 6) Limit text to 48 characters.......: No
 7) Simplex to process U and C reports: ---
 8) Gamewell 6x0 Text Order...........: ---
 9) Protocol for HOST RS232 port .....: Digitize Micromux 0


 B) Panel has RS232 Handshake Supv....: Yes
 C) Send Each Trouble Individually....: No
 R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring an IRC-3 Fire Panel:

Table 5-4, IRC-3 Interface Cable

Signals on IRC-3, TB2		Signals on MicroMux, TB3 Terminal Block Connector	
TX1	Txd	RX	Receive Data
RX1	Rxd	TX	Transmit Data
COM1	Gnd	SG	Signal Ground

5.6.4 FCI-7100 Fire Panel

The following items are required for the MicroMux Panel to successfully interface to a FCI-7100 Fire Panel:

Approved Versions	FCI-7100, Software Rev. 6.1 or less
Standalone / Network	Standalone & Network
FACP Equipment Required	Proper operation of the FCI-7100 Standalone panel requires that a FCI-PRTM module FCI P/N 100-1235 be installed at J2

Figure 5-4, Programming screen for FCI-7100 Panel


```
CHANGED                    MicroMux version 2.3  -- Main Menu
               Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.     Q) Quit without saving changes.

  1) Panel type .......................: FCI 7100
     MMX software release ............: 011
  2) HOST RS232 Port ..................: 4800,N,8,1,F
  3) FACP RS232 Port ..................: 9600,N,8,1,-
  4) Network or Standalone panel ......: Standalone
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: ---
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: Yes
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring a FCI-7100 Fire Panel:

Table 5-5, FCI-7100 Interface Cable

Signals on FCI-7100, J3		Signals on MicroMux, TB3	
RJ11 Phone Style Connector		Terminal Block Connector	
2	Rxd	**TX**	Transmit Data
3	Gnd	**SG**	Signal Ground
5	Txd	**RX**	Receive Data
6	Supervision	**AV***	Analog Voltage

* - A jumper is required from "C" to "P" on the MicroMux board to provide the positive analog voltage the FCI-7100 panel is looking for on the Supervision signal. See Section **Error! Reference source not found.**.

5.6.5 FCI-7200 Fire Panel

The following items are required for the MicroMux Panel to successfully interface to a FCI-7200 Fire Panel:

Approved Versions	
Standalone / Network	Standalone
FACP Equipment Required	Remove W4 on Fire Panel to activate RS-232 Supervision

Figure 5-5, Programming screen for FCI-7200 Panel

```
CHANGED                 MicroMux version 2.3  -- Main Menu
          Serial Number: FFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.    Q) Quit without saving changes.

  1) Panel type .......................: FCI 7200
     MMX software release ..............: 010
  2) HOST RS232 Port ...................: 4800,N,8,1,F
  3) FACP RS232 Port ...................: 1200,N,8,1,-
  4) Network or Standalone panel ......: ---
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: ---
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: Yes
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring a FCI-7200 Fire Panel:

Table 5-6, FCI-7200 Interface Cable

| **Signals on FCI-7200, J2** | | **Signals on MicroMux, TB3** | |
RJ11 Phone Style Connector		Terminal Block Connector	
2	Rxd	**TX**	Transmit Data
3	Gnd	**SG**	Signal Ground
5	Txd	**RX**	Receive Data
6	Supervision	**AV***	Analog Voltage

* - A jumper is required from "C" to "P" on the MicroMux board to provide the positive analog voltage the FCI-7200 panel is looking for on the Supervision signal. See Section **Error! Reference source not found.**.

5.6.6 FCI E3

The following items are required for the MicroMux Panel to successfully interface to a FCI-E3 Fire Panel:

Approved Versions	FCI E3 – Ver. 1.1 - 528
Standalone / Network	Standalone & Network

Figure 5-6, Programming screen for FCI-E3 Panel

```
CHANGED                    MicroMux version 2.3  -- Main Menu
              Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.      Q) Quit without saving changes.

  1) Panel type ......................: FCI E3
     MMX software release ............: 009
  2) HOST RS232 Port .................: 4800,N,8,1,F
  3) FACP RS232 Port .................: 9600,N,8,1,-
  4) Network or Standalone panel .....: Standalone
  5) Zones ...........................: ---
  6) Limit text to 48 characters......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order..........: ---
  9) Protocol for HOST RS232 port ....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv...: ---
  C) Send Each Trouble Individually...: No
  R) Reset serial ports to default values



Enter the choice (item letter):
```

The MicroMux uses the following interface connections when monitoring a FCI E3 Fire Panel:

Table 5-7, FCI E3 Interface Cable

Signals on FCI E3, TB6		**Signals on MicroMux, TB3**	
		Terminal Block Connector	
Pin 2	Txd	**RX**	Receive Data
Pin 4	Rxd	**TX**	Transmit Data
Pin 1	Gnd	**SG**	Signal Ground

Pin 3	Supervision	**AV**	Analog Voltage

OPERATION OF THE FACP SYSTEM

Upon power-up of the DIGITIZE MicroMux, the FACP SYSTEM can optionally issue a SYSTEM RESET to the FCI E3 Panel and will SECURE any non-sense items it has been displaying. The system will begin to collect all valid messages sent to it. Messages received as ALARMS or TROUBLES from detectors identifying themselves in the MMSSPP format will be placed into the SYSTEM 3505 queue and held until a RESTORE of the condition has been received or a SYSTEM RESET has been initiated.

Messages not meeting the Priority Color, MMSSPP format, Unprogrammed Module, or Point 4 Trouble will not be responded to and will be ignored

5.6.7 Gamewell 600 Series Fire Panel

The following items are required for the MicroMux Panel to successfully interface to a Gamewell 600 Series Fire Panel:

Approved Versions	
Standalone / Network	Standalone - 6xx, 602, 630/650, 610 Network - 602

Figure 5-7, Programming screen for Gamewell 600 Series Fire Panel

```
CHANGED                MicroMux version 2.3  -- Main Menu
          Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.    Q) Quit without saving changes.

  1) Panel type .......................: Gamewell 600 Series
     MMX software release ..............: 012
  2) HOST RS232 Port ...................: 4800,N,8,1,F
  3) FACP RS232 Port ...................: 2400,N,8,1,-
  4) Network or Standalone panel ......: ---
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: User, Circuit
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: Yes
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring a Gamewell 600 Series Fire Panel:

Table 5-8, Gamewell 600 Series Interface Cable

Signals on Gamewell 600 Series Panel, J2 Terminal Block Connector		Signals on MicroMux, TB3 Terminal Block Connector	
XMT	Txd	**RX**	Receive Data
RCV	Rxd	**TX**	Transmit Data
COM	Gnd	**SG**	Signal Ground

5.6.8 Mircom FX2000 Fire Panel

The following items are required for the MicroMux Panel to successfully interface to a Mircom FX2000 Fire Panel:

Approved Versions	
Standalone / Network	Standalone

Figure 5-8, Programming screen for Mircom FX2000 Panel

```
New
CHANGED                    MicroMux version 2.3  -- Main Menu
                Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

   W) Write configuration and quit.    Q) Quit without saving changes.

   1) Panel type ......................: Mircom FX2000
      MMX software release .............: 010
   2) HOST RS232 Port ..................: 4800,N,8,1,F
   3) FACP RS232 Port ..................: 9600,N,8,1,-
   4) Network or Standalone panel ......: ---
   5) Zones ............................: ---
   6) Limit text to 48 characters.......: No
   7) Simplex to process U and C reports: ---
   8) Gamewell 6x0 Text Order...........: ---
   9) Protocol for HOST RS232 port .....: Digitize Micromux 0


   B) Panel has RS232 Handshake Supv....: Yes
   C) Send Each Trouble Individually....: No
   R) Reset serial ports to default values



 Enter the choice (item letter):
```

The MicroMux uses the following interface connections when monitoring a Mircom FX2000 Fire Panel:

Table 5-9, Mircom FX-2000 Interface Cable

Signals on Mircom FX2000, P9		Signals on MicroMux, TB3	
		Terminal Block Connector	
Pin 2	Txd	**RX**	Receive Data
Pin 3	Rxd	**TX**	Transmit Data
Pin 5	Gnd	**SG**	Signal Ground

5.6.9 Notifier 320 / 640 Panel

The following items are required for the MicroMux Panel to successfully interface to a Notifier 320 / 640 Fire Panel:

Approved Versions	
Standalone / Network	Standalone

Figure 5-9, Programming screen for Notifier 320 / 640 Panel

```
CHANGED                MicroMux version 2.3  -- Main Menu
             Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

   W) Write configuration and quit.    Q) Quit without saving changes.

   1) Panel type ......................: Notifier 640
      MMX software release .............: 011
   2) HOST RS232 Port ..................: 4800,N,8,1,F
   3) FACP RS232 Port ..................: 9600,E,7,1,-
   4) Network or Standalone panel .......: ---
   5) Zones .............................: ---
   6) Limit text to 48 characters........: No
   7) Simplex to process U and C reports: ---
   8) Gamewell 6x0 Text Order............: ---
   9) Protocol for HOST RS232 port .....: Digitize Micromux 0


   B) Panel has RS232 Handshake Supv....: Yes
   C) Send Each Trouble Individually....: No
   R) Reset serial ports to default values




Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring a Notifier 320 / 640 Fire Panel:

Table 5-10, Notifier 320 / 640 Interface Cable

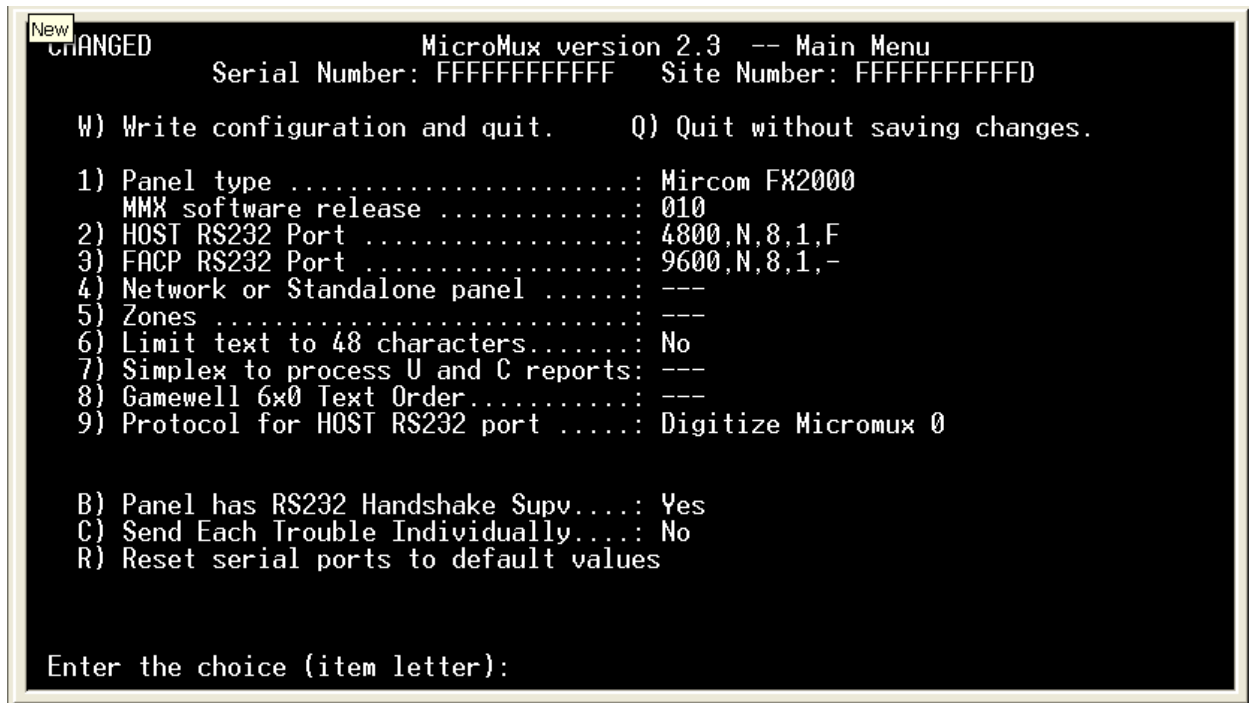| Signals on Notifier 320 / 640, Printer Port Terminal Block Connector		Signals on MicroMux, TB3 Terminal Block Connector	
Tx	Txd	**RX**	Receive Data
Rx	Rxd	**TX**	Transmit Data
Ref	Gnd	**SG**	Signal Ground

5.6.10 Notifier 2020 Panel

The following items are required for the MicroMux Panel to successfully interface to a Notifier 2020 Fire Panel:

Approved Versions	
Standalone / Network	Standalone

Figure 5-10, Programming screen for Notifier 2020 Panel

```
CHANGED               MicroMux version 2.3  -- Main Menu
            Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.    Q) Quit without saving changes.

  1) Panel type .......................: Notifier 2020
     MMX software release .............: 009
  2) HOST RS232 Port ..................: 4800,N,8,1,F
  3) FACP RS232 Port ..................: 2400,E,7,1,-
  4) Network or Standalone panel ......: ---
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: ---
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: Yes
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter):
```

The MicroMux uses the following interface connections when monitoring a Notifier 2020 Fire Panel:

Table 5-11, Notifier 2020 Interface Cable

Signals on Notifier 2020, P3 Terminal Block Connector		Signals on MicroMux, TB3 Terminal Block Connector	
Pin 12	Txd	**RX**	Receive Data
Pin 10	Rxd	**TX**	Transmit Data
Pin 15	Gnd	**SG**	Signal Ground

5.6.11 Notifier 3030 Fire Panel

The following items are required for the MicroMux Panel to successfully interface to a NOTIFIER 3030 Fire Panel:

Approved Versions	NFS-3030, Software Rev.6.0
Standalone / Network	Standalone
Special Settings Required	Serial Port, TB5 settings: 9600 Baud, 8 bits, No Parity, 1 Stop Bit

Figure 5-11, Programming screen for Notifier 3030 Panel

```
CHANGED                    MicroMux version 2.3  -- Main Menu
             Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.      Q) Quit without saving changes.

  1) Panel type .......................: Notifier 3030
     MMX software release .............: 011
  2) HOST RS232 Port ..................: 4800,N,8,1,F
  3) FACP RS232 Port ..................: 9600,N,8,1,-
  4) Network or Standalone panel ......: ---
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: ---
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: ---
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter):
```

The MicroMux uses the following interface connections when monitoring a Notifier 3030 Fire Panel:

Table 5-12, Notifier 3030 Interface Cable

Signals on Notifier 3030, TB5		Signals on MicroMux, TB3	
Terminal Block Connector		Terminal Block Connector	
PRX	Rxd	**TX**	Transmit Data
REF	Gnd	**SG**	Signal Ground
PIX	Txd	**RX**	Receive Data

The following events are not relayed to the System 3505:

- ACTIVE
- CLEARED ACTIVE
- DOWNLOAD TIMED OUT
- JUMP TO COLD START
- OFF
- ON
- PERFORMING DOWNLOAD
- SILENCE
- UPDATED
- PRINTER OFF LINE.

Important!! If the MicroMux should become disconnected, the Notifier 3030 should be power cycled.

Configuring the Notifier 3030 to communicate with the MicroMux Panel

The following procedures outline the steps that must be taken to configure communication between the Notifier 3030 and System 3505.

1. Press the black bottom-left button on the side of display screen for Program/Alter Status functions. This step is Master Password protected.
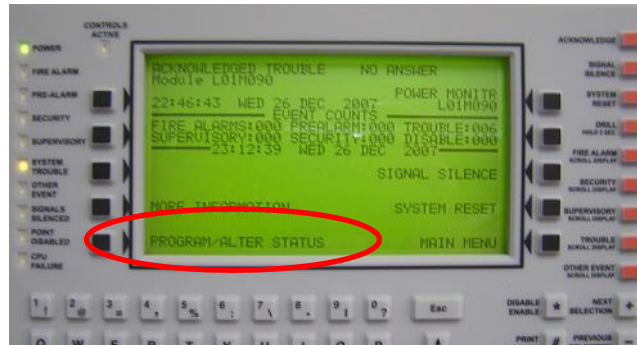
2. Enter master password, then press black button to the right of "ACCEPT".
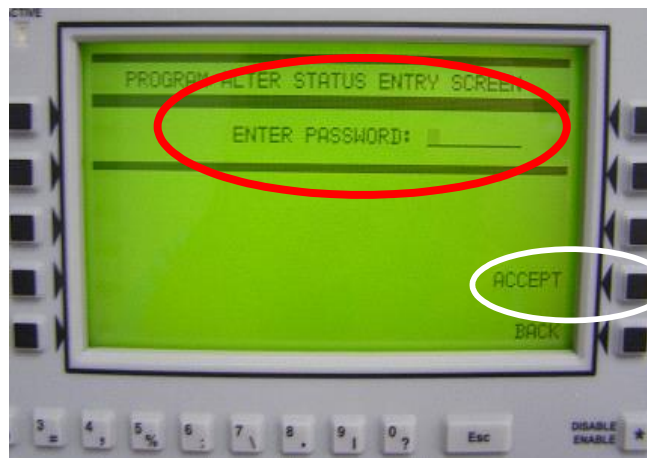
3. At the next screen, PROGRAM/ALTER STATUS MENU, press the black button to the left of Panel Program Menu to select.
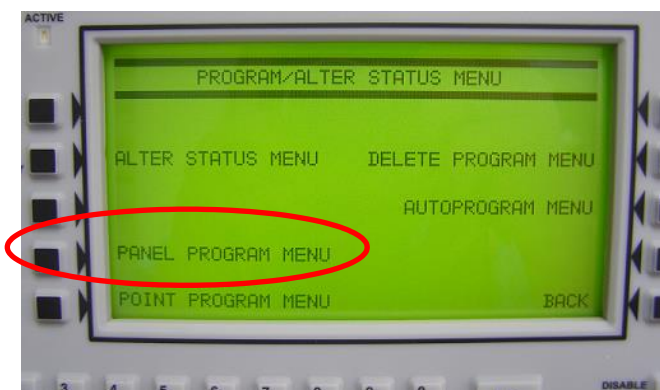
4. At the next screen, select Supervision by pressing the black button to its right.
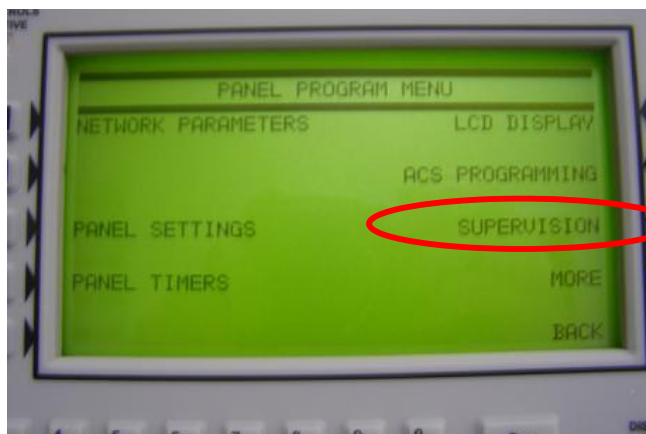
5. Within the Supervision Menu, select "Printer: 80-Column Supervised". If not immediately displayed, use the "+" "-" buttons to advance or return to "Printer: 80-Column Supervised", the required printer selection (shown). Accept the change by pressing the black button to the right of the on-screen word "ACCEPT".
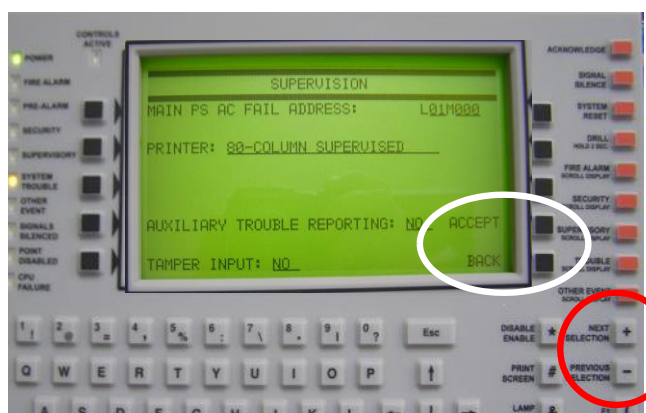
Important!! During and after transmitting to the System 3505, the Notifier 3030 may beep and flash a "Printer Online/Offline trouble message for a few minutes following the transmission. These trouble messages will NOT be transmitted to the System 3505, and the condition will eventually correct itself. The MicroMux is still operating normally and no action is needed.

NOTIFIER DETECTOR NUMBER CONVERSIONS

The Notifier 3030 panel reuses the point (detector) address numbering between digital sensors and analog sensors.

The Notifier panel can contain 159 device numberings per loop. This would permit 159 detectors and 159 modules, for a total of 318 actual sensors per loop circuit. The SYSTEM 3505 allocates three digits to report these devices, thus the Modules will be reported using the identical numbers used by the Notifier panel, however, the SYSTEM

3505 adds 200 to the detectors, thus reporting these devices as 201-359. The text message that has been programmed into the FACP will appear on the SYSTEM 3505 and print out on the thermal printer tape. Refer to the Notifier Programming Manual for details on programming the Notifier 3030. To configure the SYSTEM 3505 to accept the FACP messages, refer to Section 2.3 SYSTEM 3505 Configuration.

The basic Notifier account number is presented as following on the SYSTEM 3505 MMMNNLZZZ, where MMM is the Digitize MicroMux number, NN is the Notifier Loop number (For MicroMux programs sold as "Network") from 00 to 96, or if presented is 97, 98 or 99, this represents an error or trouble condition pertaining to the Notifier panel or MicroMux account is displayed on the System 3505. The first digits represent the MicroMux. The next pair of numbers represent the network version if 00-96; 97, 98, 99 are reserved for error messages. The loop is identified in the next digit, and the modules or sensors are represented in the final trio of digits.

Table 5-13, Notifier Number Conversions

MicroMux	Network	Loop	Modules/Sensors
MMM	**NN**	**L**	**ZZZ**
001-500	NetworkVersion only* = 00-96 *97, 98, 99 are reserved for error/Trouble conditions for Standalone and Networked	Loop 0-F	1-159 Modules 201-359 Sensors

Duplicate user text messages may appear when using user text messages directly from the FACP. For instance, every building may use the message 'SMOKE DETECTOR – LOBBY You can avoid this by entering a "Generic" message to the SYSTEM 3505 that will append the Building location to every account that the FACP panel sends. A generic message if entered as MMM-, where MMM is the MicroMux number, followed by a hyphen.

PANEL AUTO ACKNOWLEDGEMENT

Each time a Notifier 3030 panel makes any kind of report, regardless of priority, it is sequentially reported to the video screen. The operator then presses the ACK key and the panel then shows the next item in its chronological sequence.

Because of the chronological sequencing of reports, the panel must be acknowledged each time it makes a report in order to clear the path for the next report to be made. The panel will continue to hold up a report (even if it is an Alarm) while the Trouble report awaits acknowledgement. The Notifier 3030 panel must be remotely acknowledged. When all reports from the panel are remotely acknowledged, the Piezo buzzer mounted in the panel is silenced.

5.6.12 Notifier NCA2

The following items are required for the MicroMux Panel to successfully interface to a Notifier NCA2 Fire Panel:

Special Settings Required	**IMPORTANT!** The Notifier representative must activate all of the conditions that the user would like reported via the MicroMux to the System 3505, (i.e. fire alarms, supervisories, trouble conditions, etc.). See below.

Figure 5-12, Programming screen for Notifier NCA2

```
CHANGED               MicroMux version 2.3  -- Main Menu
            Serial Number: FFFFFFFFFFFF   Site Number: FFFFFFFFFFFD

  W) Write configuration and quit.    Q) Quit without saving changes.

  1) Panel type .......................: Notifier NCA2
     MMX software release ..............: 011
  2) HOST RS232 Port ..................: 4800,N,8,1,F
  3) FACP RS232 Port ..................: 9600,N,8,1,-
  4) Network or Standalone panel .......: ---
  5) Zones ............................: ---
  6) Limit text to 48 characters.......: No
  7) Simplex to process U and C reports: ---
  8) Gamewell 6x0 Text Order...........: ---
  9) Protocol for HOST RS232 port .....: Digitize Micromux 0


  B) Panel has RS232 Handshake Supv....: ---
  C) Send Each Trouble Individually....: No
  R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring a Notifier NCA2 Fire Panel:

Table 5-14, Notifier NCA2 Interface Cable

Signals on Notifier NCA2, TB5 Terminal Block Connector		Signals on MicroMux, TB3 Terminal Block Connector	
PRX	Rxd	**TX**	Transmit Data
GND	Gnd	**SG**	Signal Ground
PTX	Txd	**RX**	Receive Data

5.6.13 Simplex 4100/4020/4120

The following items are required for the MicroMux Panel to successfully interface to a Simplex 4100/4020/4120 Fire Panel:

Special Settings Required	**IMPORTANT!** The Simplex representative must activate all of the conditions that the user would like reported via the MicroMux to the System 3505, (i.e. fire alarms, supervisories, trouble conditions, etc.). See below.

Figure 5-13, Programming screen for Simplex Panel

```
CHANGED                  MicroMux version 2.3  -- Main Menu
             Serial Number: FFFFFFFFFFF   Site Number: FFFFFFFFFFFD

 W) Write configuration and quit.    Q) Quit without saving changes.

 1) Panel type ......................: Simplex 4020/4100U
    MMX software release .............: 011
 2) HOST RS232 Port ..................: 4800,N,8,1,F
 3) FACP RS232 Port ..................: 2400,N,8,1,-
 4) Network or Standalone panel ......: ---
 5) Zones ............................: ---
 6) Limit text to 48 characters.......: No
 7) Simplex to process U and C reports: No
 8) Gamewell 6x0 Text Order...........: ---
 9) Protocol for HOST RS232 port .....: Digitize Micromux 0


 B) Panel has RS232 Handshake Supv....: Yes
 C) Send Each Trouble Individually....: No
 R) Reset serial ports to default values



Enter the choice (item letter): _
```

The MicroMux uses the following interface connections when monitoring a Simplex 4100/4020/4120 Fire Panel:

Table 5-15, Simplex Interface Cable

Signals on Simplex 4100/4020/4120, P3 Terminal Block Connector		Signals on MicroMux, TB3 Terminal Block Connector	
RX	Rxd	TX	Transmit Data
GND	Gnd	SG	Signal Ground
TX	Txd	RX	Receive Data
RTS	Request to Send	CTS	Clear to Send
CTS	Clear to Send	RTS	Request to Send

RS232 CABLE CONNECTIONS

This section of the manual covers specific information for interfacing to the Simplex 4100 or 4020 panels.

The Simplex 4100/4020/4120 panel must be programmed by the Simplex factory authorized representative for use with the Digitize MicroMux. The Simplex representative must use the following information to properly set up the panel:

Device Type:	Computer
Header Label:	(as needed by Simplex)
Port ID:	Port 1 (or 2) MicroMux
Set to:	2400 baud, 8 bits, no parity, one stop.

Option	Status
Shell	OFF
Protocol	ON
Echo	OFF
Logging	OFF
Status	ON
Address	ON
B Prefix	OFF
A Prefix	ON
Supv	ON
Bells	OFF
Hshake	ON
Poll	ON
Attrib	OFF
LF	ON
Line Width	80

NOTE: Do not assign Card # 153, 240 or zero within the Simplex FACP. Card numbers 153, 240 and zero will conflict with Digitize fault messages for the Simplex interface.

REPORTING TO SYSTEM 3505

The Simplex panel does not send alarm verification to the serial port; therefore alarm verification is not processed by the SYSTEM 3505. Even though utility (i.e. type of board installed, etc.) and contact functions are sent to the MicroMux, they are not processed by the SYSTEM 3505. The FACP will always send proper information that is

processed by the SYSTEM 3505, in addition to the contact function that describes the event.

REMOTE CONTROL OF THE 4100/4020/4120 PANEL

The following control functions are available as special order only:

- Apply detector RESET command to FACP

- ACKNOWLEDGE of panel messages

- Toggle SILENCE signal circuits

Important!! Remote operations such as Apply RESET command to FACP, Acknowledge FACP and Silence signal circuits are not in compliance with ANSI/UL 864 Standards and may not be permitted in your area. Check with your local governing authority for all rules and regulations.

GENERAL TROUBLE OPTION

Simplex 4100/4020 panels will have the General Trouble option at the System 3505 enabled at all times (it cannot be turned off). Simplex 4120 panels will have the option to turn General Troubles ON or OFF.

6 Operation

Chapter 6, Operation covers how the VersAlarm Panel operates during normal and non-normal situations.

6.1 Normal Operation

During normal quiescent operation, the VersAlarm Panel will be operating on AC Power. The Power Supply will provide the power for the VersAlarm board and simultaneously provide power for maintaining the charge on the batteries.

The Ethernet port on the VersAlarm bd. will be connected to the local network. The VersAlarm will maintain continuous supervised communication with the Remote Annunciator or System 3505.

The following leds will be on:

AC Led (Power Supply, lower middle) Indicates that AC Power is connected to the power supply.

DC Led (Power Supply, lower middle) Indicates that DC Power is functioning on the power supply.

Bat Led (Power Supply, lower middle) Indicates that the battery is connected and charged.

POWER (VersAlarm Bd., D1, Green)

LINK/ACT (VersAlarm Embedded Controller bd., Green, Should flash when data being transferred.)

FDX/COL (VersAlarm Embedded Controller bd., Yellow)

SPEED (VersAlarm Embedded Controller bd., Yellow, Depends on Ethernet connection.)

SD Card Status (VersAlarm Embedded Controller bd., Yellow)

6.2 Abnormal Operation

6.2.1 Zones

Zones 1 through 5 on the VersAlarm card are available to the end user. Each of the zones is supervised through a 1.43k ohm EOL resistor. If any of these zones are enabled and are placed in Alarm (shorted) condition, the VersAlarm bd will turn on the red Alarm LED and report the Alarm condition to the Remote Annunciator or System 3505. If the zone is placed in a Trouble (open) condition, the VersAlarm will report the Trouble.

The Alarm or Trouble will remain on the Remote Annunciator or System 3505 until the condition is cleared and the zone restored to a Secure (Normal) Condition.

6.2.2 AC Failure

During an AC power failure, the power supply panel will power the VersAlarm Panel from the pair of 12 Amp Hour batteries for a minimum of 72 hours. (This depends on the condition and age of the batteries.) The panel will send an AC Failure signal via the Ethernet connection.

The AC Led will be turned off.

When AC Power is restored, the panel will begin to recharge the batteries and send a restoral signal that that AC Failure no longer exists.

6.2.3 Battery Faults

The Low or Missing battery condition will signal the panel to send a battery fault condition via Ethernet.

The Bat Led will be off.

When Battery Fault is corrected, the panel will send a restoral signal.

6.2.4 Tamper

The Tamper switch is located on the upper right corner of the enclosure.

When the enclosure door is opened, the panel will send a Tamper Signal via Ethernet.

When the enclosure door is closed, the panel will send a Tamper Restoral Signal.

7 Testing the System

Chapter 7, Testing the System covers the steps for testing the VersAlarm Panel to confirm it is functioning properly.

It is recommended that the entire system should be completely tested after the VersAlarm Panel is installed and placed into service. This test should at a minimum include:

- Confirm that the VersAlarm cabinet and electronics are properly connected to earth (safety) ground.

- Confirming all wire connections are proper and tight.

- Confirm the VersAlarm Panel and the System 3505 or Remote Annunciator is communicating properly and the System 3505 or RA is clear of all trouble messages.

- Confirm that the System 3505 is display the Alarm or Trouble Messages properly by manually activating each condition.

- Confirm that the VersAlarm Panel properly switches to battery backup when AC Power is removed.

- Confirm that disconnecting the VersAlarm panel from the System 3505 or RA causes the 3505 or RA to report a "Connection Down" condition.

The User must verify that the System 3505 provides the proper display of the Alarm and Trouble events. If an automation system is used, proper operation should be verified at the automation system as well.

This page is intentionally blank.

8 Maintenance

Chapter 7, Maintenance covers the issues for maintaining the VersAlarm Panel.

8.1 Recommended Maintenance

The VersAlarm Panel should be tested periodically per the local codes.

It is recommended that at a minimum, the panel should be visited at least once a year to confirm its proper operation which would include:

- Confirming the leds are all functioning.
- Confirming all wire connections are proper and tight.
- The panel is locked and secured properly.

No other maintenance is required.

8.2 Battery Maintenance and Replacement

The VersAlarm Panel is shipped with two 12 volt, 12 Amp Hour sealed Lead Acid batteries.

Expected life of the VersAlarm batteries can be as long as five years. The life of a battery is dependant on a number of criteria which include but are not limited to:

- The temperature where the battery is located.
- The number of times the battery has discharged then recharged.
- Whether the battery was allowed to completely discharge (deep discharge) and how long it was allowed to remain that way before it is recharged.
- Whether the battery was ever overcharged.

Digitize recommends that the batteries be replaced every four years.

Batteries should be tested per the battery manufacturer's specification to confirm that it has sufficient capacity to operate the VersAlarm Panel for a minimum of 72 hours of Standby.

This page is intentionally blank.

STATEMENT OF LIMITED WARRANTY

Digitize, Inc. ("Digitize") warrants to its distributors, systems houses, end users, and OEMs ("Buyer"), that products manufactured by Digitize are free from defects in materials and workmanship. Digitizes obligations under this warranty are limited to repairing or replacing, at Digitizes option, the part or parts of the products which prove defective in material or workmanship for 12 months within 15 months after shipment by Digitize. Buyer must pass along to its initial customer or user ("Customer") a minimum of 12 months' coverage within the 15-month warranty period, provided the Buyer gives Digitize prompt notice of any defect and satisfactory proof thereof. Products may be returned by Buyer only after a Return Material Authorization number ("RMA") has been obtained from Digitize by telephone or in writing. Buyer will prepay all freight charges to return any products to the repair facility designated by Digitize and include the RMA number on the shipping container. Digitize will, at its option, either repair the defective products or parts or deliver replacements for defective products or parts on an exchange basis to Buyer, freight prepaid to the Buyer. Products returned to Digitize under this warranty will become the property of Digitize. With respect to any products or art thereof not manufactured by Digitize, only the warranty, if any, given by the manufacturer thereof, applies.

EXCLUSIONS

This limited warranty does not cover losses or damage which occurs in shipment to or from Buyer, or are due to, (1) improper installation or maintenance, misuse, neglect, or any cause other than ordinary commercial or industrial application, or (2) adjustment, repair, or modifications by other than Digitize-authorized personnel, or (3) improper environment, excessive or inadequate heating or air conditioning and electrical power failures, surges, or other irregularities, or (4) any statements made about Digitizes products by salesmen, dealers, distributors or agents, unless confirmed in writing by a Digitize officer. If the firmware or hardware is altered or modified by the Buyer, this firmware and hardware is not covered within this limited warranty and the Buyer bears sole responsibility and liability for that firmware and hardware.

THE FOREGOING DIGITIZE LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESSED, IMPLIED, OR STATUTORY. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE DO NO APPLY. DIGITIZE'S WARRANTY OBLIGATIONS AND DISTRIBUTOR'S REMEDIES HEREUNDER ARE SOLELY AND EXCLUSIVELY AS STATED HEREIN. DIGITIZE'S LIABILITY, WHETHER BASED ON CONTRACT, TORT, WARRANTY, STRICT LIABILITY, OR ANY OTHER THEORY, SHALL NOT EXCEED THE PRICE OF THE INDIVIDUAL UNIT WHOSE DEFECT OR DAMAGE IS THE BASIS OF THE CLAIM. IN NO EVENT SHALL DIGITIZE BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF USE OF FACILITIES OR EQUIPMENT, OR OTHER INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

WARRANTY REV.D