Users Manual for the
Mytrex Model MXD
Personal Emergency Response System

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Introduction

Congratulations! You have chosen the Mytrex MXD Personal Emergency Response System (PERS), which you have obtained through the following service provider:

[Providers name
Providers address
Business Toll free number
Response Center Toll Free Number (if different from business number)
Fax Number
Email address
Web site]

The MXD has been created to provide you comfort, reassurance, and peace of mind by making it possible for help to be just a touch of a button away.

Pressing your waterproof personal help button (PHB) will immediately activate the MXD PERS unit. Within seconds, your response center will be notified of your need for assistance. When a call for help is received, the response center's computers provide an attendant with all of your personal information. The attendant will talk to you through the MXD unit's speakerphone. The attendant will then telephone your family, friends, or emergency services based on the type of assistance you need. Even if you cannot hear or speak to the attendant as a result of the fall, help will be summoned for you.

The MXD unit is fast and simple to install. Your service provider's representative may connect the MXD unit during an installation visit, you may elect to do it yourself, or you may ask a friend or relative to install it for you.

To ensure that you always receive the fastest response time possible, it is very important that you do the following:

- **Notify your service provider of any changes that should be made to your personal account information.**   You can update your account by calling your service provider or by pressing your PHB and relaying the information to the attendant over the speakerphone. Your response center needs to be aware of changes to your address, telephone number, responder information, medical history, allergies, doctor information, hidden key location, and other information that you wish to have on file.
- Test your MXD unit at least once a month by pressing your PHB.
- Always wear your PHB!

This User's Manual has been designed to help you make the most of your MXD PERS system. If you have any questions or concerns after reading this manual, please contact your service provider.

MXD PERS Equipment Description

OVERVIEW

Your PERS system consists of the MXD base unit, telephone cord, and one or more Personal Help Buttons (PHBs) or other accessories. The MXD unit incorporates several important features, including:
- Compatible with Voice over IP (VoIP) telephone circuits in addition to standard telephone technology
- When enabled, interactive voice messages from the unit when the unit is calling the response center and during certain setup operations
- PHB detection ranges up to 600 feet from the base unit
- Simplified base unit buttons and indicator lights
- State of the art electronics
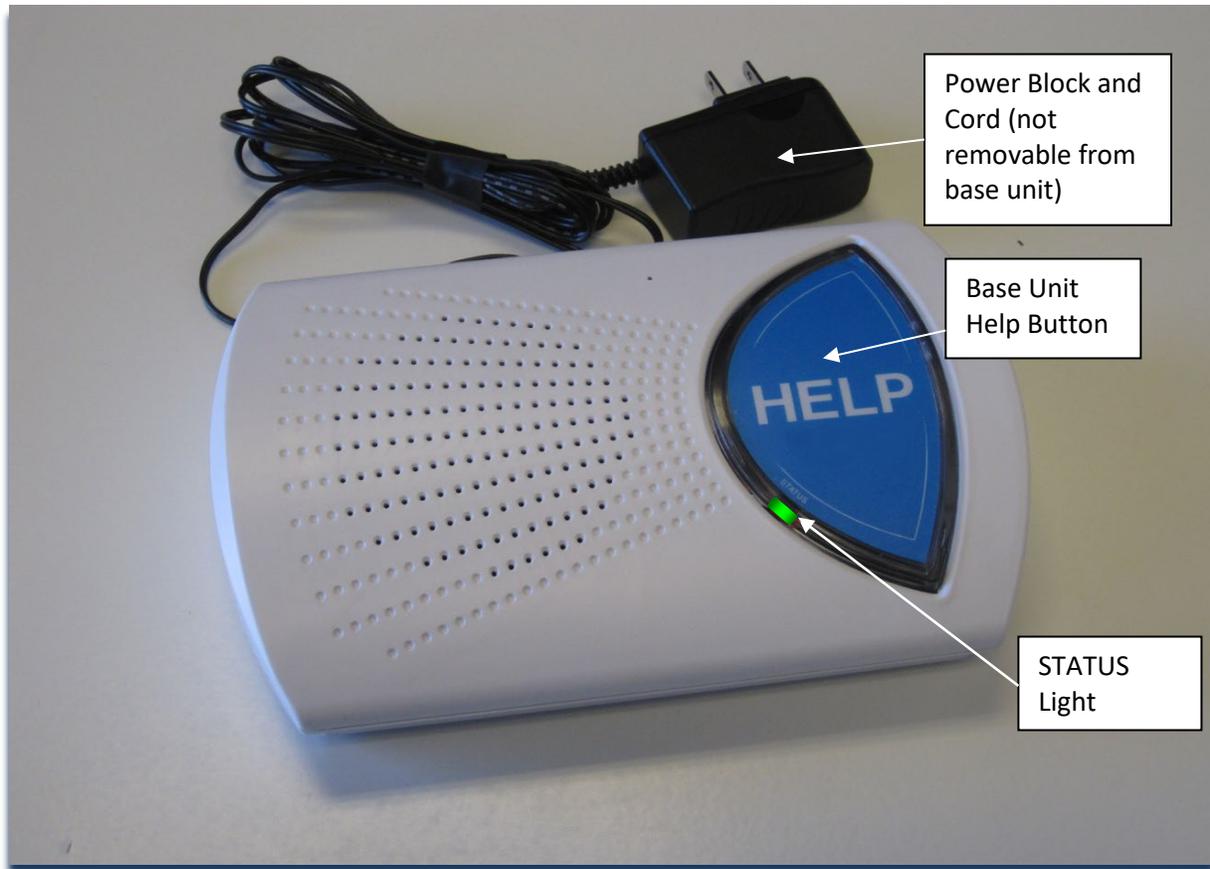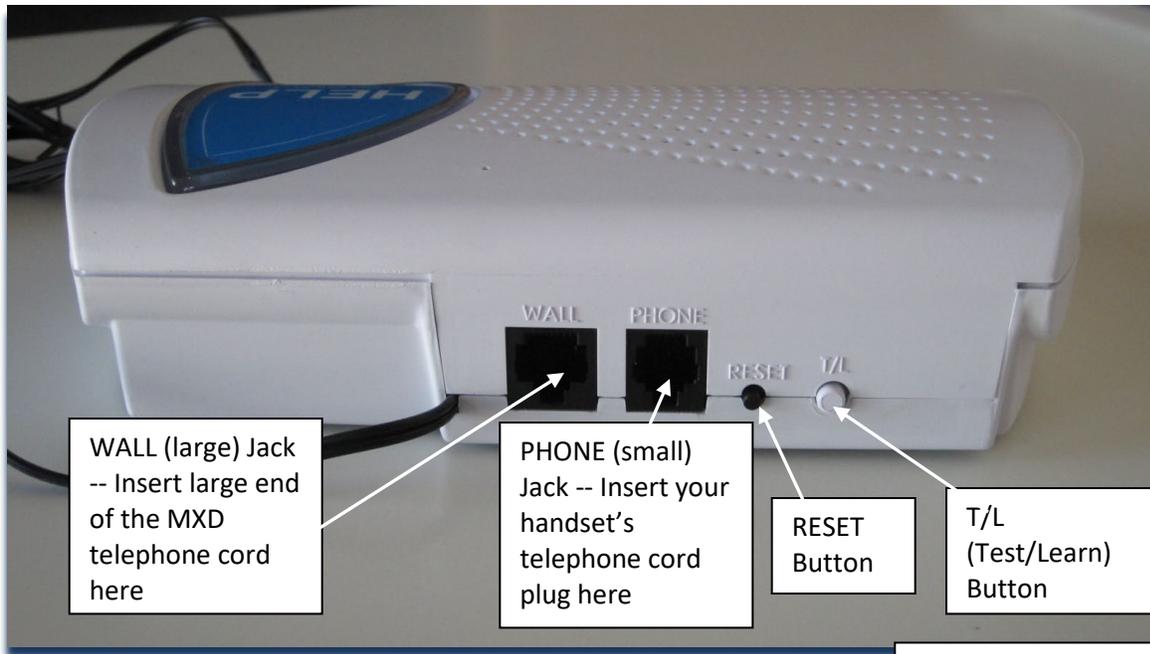- Capacity to remember many PHB and other device codes

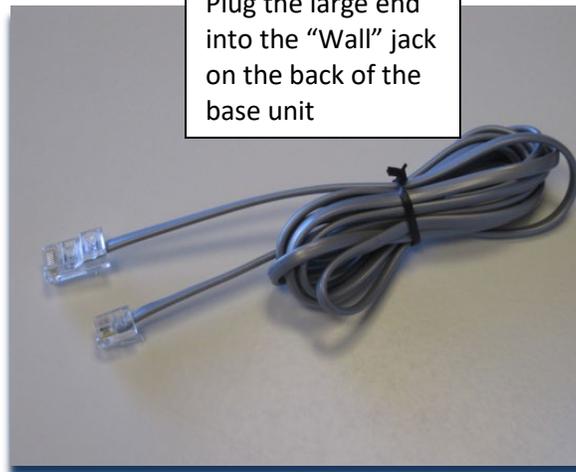**Figure 1. MXD Base Unit and Power Cord**

Figure 2. Rear of MXD Base Unit

WALL (large) Jack -- Insert large end of the MXD telephone cord here

PHONE (small) Jack -- Insert your handset's telephone cord plug here

RESET Button

T/L (Test/Learn) Button

Plug the small end into the telephone jack on the wall

Plug the large end into the "Wall" jack on the back of the base unit

**Figure 3.
Personal Help Button (PHB)**

Figure 4. MXD Telephone Cord

Warning: Before your MXD system is ready for operation, it must be properly installed, have completed a range test, and completed its first call to the response center. See the detailed setup instructions later in this manual, or for additional information, contact your service provider.

BASE UNIT CONTROLS AND INDICATOR
The MXD base unit has three push buttons, including the large HELP button on the top of the base unit, and two small buttons on the back of the unit that are used during initial installation and at other times if needed. Each button is described below.

Base Unit Help Button (Figure 1)
Normally, pushing the large blue Help Button on the front of your base unit causes the unit to send a "Help needed" message to the response center. The Help Button also is used with the T/L button to conduct range tests and to program the MXD unit to recognize PHBs or other accessories.

STATUS Light (Figure 1)
A small STATUS light is located on the lower left edge of the unit's large "Help" button. The STATUS light will display steady or flashing lights, in either red, green or orange color, depending on the status of the unit. See Page 13 for a more detailed description of the STATUS light signals and their meaning.

T/L (Test/Learn) Button (Figure 2)
The white T/L (Test/Learn) Button is located on the rear of your MXD unit. It is used to place your MXD unit into special operating modes to conduct PHB range tests, to program PHBs and other accessories, and to allow technical personnel to diagnose problems and adjust the unit.

T/L Operating Modes Chart

If the T/L button is pushed:	The base unit will be placed in the following mode:	Voice Announcement (if enabled) / Tone Signal (if voice not enabled)	The purpose of this mode is:
Once	RANGE TEST	"Range Test Mode" / One brief tone	Test the range of the PHB and search for areas where the PHB signal might not be detected by the base unit
Twice	MONITOR	"Monitor Mode" / Two brief tones	Allow a technician to listen while the unit is dialing and transferring data. This helps the technician troubleshoot problems.
Three times	POWER	"Press HELP to turn off" / Three brief tones	Place unit in an inactive state until unit is unplugged from AC Power, at which time unit will automatically turn off completely
Four times	SERVICE	"Service Mode" / Four Brief Tones	Allows a response center attendant to communicate with the unit during troubleshooting or re-programming
Five times	Returned to normal mode	"System Ready" / Two quick tones in rapid succession	The unit is returned to its normal mode, ready to process alarm signals

RESET Button (Figure 2)
The black RESET button is located on the rear of your MXD unit. Whenever the RESET Button is pressed, your MXD unit will return to its standard operating mode, ready to transmit alarms from the

PHB or the Base Unit Help Button if the unit is properly installed. The unit will sound two quick tones when it is reset. If voice announcements are enabled the unit will announce, "System Ready."
The RESET Button may also be used to cancel your call for help if your MXD unit is inadvertently activated. However, to cancel a call for help the RESET Button must be pressed within 10-15 seconds of activation; otherwise, the unit will already be communicating with the response center. The response center is staffed 24 hours a day, therefore, it is best to allow your MXD unit to complete the call and tell the attendant that you accidentally activated your MXD unit.

Personal Help Button (Figure 3)

Each MXD unit is supplied with one or more Personal Help Buttons (PHBs). The PHB is a small waterproof pendant that may be worn around the neck on a breakaway cord, or may be worn attached to a wrist band. When pressed, the PHB sends a "Help needed" radio signal to the MXD base unit, causing it to call the monitoring center. Within a few seconds, an attendant will talk to you through your MXD base unit's speaker to determine if help is needed. The PHB transmitter and the base unit receiver are carefully designed to ensure that the base unit can detect the PHB's signal at distances of up to 600 feet away from the base unit.

Setup Guide

Your MXD is designed to work with many different types of telephone technologies, including traditional Plain Old Telephone Service (POTS), Voice over Internet Protocol (VoIP), cable company telephone systems, and Digital Subscriber Line (DSL) service. This section provides instructions for setting up the MXD to work with POTS, DSL, and VoIP telephone service. Telephone systems provided by cable companies generally require connections similar to POTS telephones. Please contact your service provider if none of the following setups work for your system.

Initial Setup steps for Any Type of System:

 For **any** of the following setups:
1. Locate a live telephone jack with an electrical outlet nearby. The electrical outlet must not be controlled by a light switch. Select a location where the MXD unit can be placed on a flat, horizontal surface and where it will be located centrally, in a part of your home that is used frequently. While it is recommended that the MXD be placed on a flat, horizontal surface, it can be wall mounted if necessary. The MXD unit should be located away from the immediate vicinity of mechanical noise sources, i.e. oxygen generators, electrical equipment, and all appliances such as televisions or stereos.
2. If a telephone handset has not been plugged into the telephone jack and used recently, plug a telephone handset into the jack and make a call using the handset to a working telephone number. Confirm that the call goes through and that both parties can hear and speak to one another.
3. Unplug the telephone handset cord from the wall jack.

System Setup for Locations with Plain Old Telephone Service (POTS)

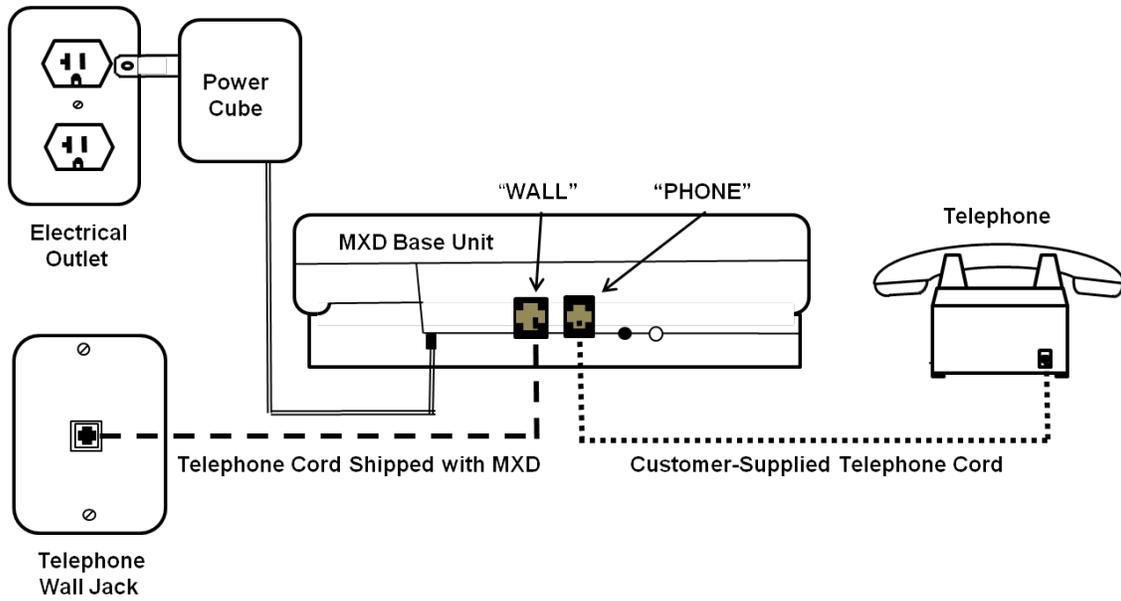Figure 5 is a general representation of a setup for locations connected to traditional telephone service.

Figure 5. MXD Connections for Traditional (POTS) Telephone Service

1.   Complete the installation steps common to all setups that are listed on Page 6.
2.   Plug your telephone handset cord into the jack on the back of the MXD unit marked "PHONE". **If your home is equipped with DSL service, see configurations on page 8**.
3.   Find the telephone cord that was shipped with your MXD unit, with a larger modular plug on one end and a smaller modular plug on the other end. Plug the smaller end into the phone jack on the wall, and the larger end into the jack on the back of the MXD marked "WALL".

        NOTE: When your MXD unit calls the response center, the telephone and any other device connected to the PHONE jack on the rear of your MXD unit will be disconnected during the call. This means if this telephone is off hook, your MXD unit can still contact the response center. If there are other extensions of the same telephone number in your home that are off-hook when your MXD unit needs to place a call, it will not be able to unless the local telephone company has installed an RJ31X jack or devices called "Line Grabbers" are properly installed on each telephone extension. The RJ31X jack allows the MXD unit to disconnect any telephone in the house that may be in use. IF you elect to have an RJ31X installed, contact your service provider and ask for an RJ31X telephone cord, Mytrex part number RA400-RJ31X. If you elect to use Line Grabbers, contact your service provider for ordering and installation instructions.

4.   Plug the power transformer into an AC outlet. Verify that the outlet is <u>not</u> controlled by a light switch.

5.   The MXD unit will automatically turn on and announce, "System Ready." The small "status" light on the lower left edge of the unit's large "Help" button will show a steady green light. This indicates that the unit is connected properly to the telephone circuit and AC power. If the telephone is connected improperly, the unit will announce, " Please Check Telephone Connections." Please see page 20 for information on the

status light combinations that will display if the unit is not connected properly to the telephone system and electrical power, and for troubleshooting instructions.

6. Test the range of the PHB to make sure it works throughout your home and yard as needed. It may be helpful to have a second person assist with this range test, with one person staying by the base unit and the other person walking to all areas of the home and yard with the PHB. To conduct the test:
    - Locate the T/L button located on the rear of the MXD unit. Press and release the T/L button one time. The unit will announce, "Range Test Mode."
    - Immediately press and hold down the PHB. A steady tone will sound from the base unit speaker as long as the base unit is detecting the pressed PHB.
    - Walk around the home and yard while pressing the PHB, and check for the steady tone from the base unit speaker. Check all areas of the home and yard to make sure that the signal is received. Take note of any "dead zones" in which the tone stops.*
    - To finish the Range Test, stop pressing the PHB and then press the black "RESET" button on the rear of the MXD unit. The unit will announce, "System Ready."
    - If needed, relocate the base unit to eliminate dead zones and conduct another range test.

> *Metal objects, mirrors, aluminum siding, and other construction techniques can prevent the signal from reaching the antenna inside your MXD unit. In such cases, there may be a small area in which your MXD unit may not respond to your PHB. It may be helpful to relocate your MXD unit, or move the object that is preventing the signal from being received. Also, electronic devices such as clock radios, televisions, microwaves, and motors in some appliances can cause radio frequency interference.

7. Initiate your first call to the response center simply by pressing your PHB. The MXD unit will activate and call the response center. The unit will announce, "Calling for Help," and when it has connected to the response center will announce, "Call Connected, Please Wait." An attendant will then answer the call as soon as possible, will welcome you as a customer, and will give you further information.

8. Note: The MXD unit is programmed to automatically call the response center a few minutes after it has been installed for the first time, if the installer has not already initiated a first call. This automatic call ensures that the response center is aware of the new subscriber and knows to be ready to process any alarm calls. The unit usually is programmed to make this call 30 minutes after installation, but the unit can be programmed for a different delay period.

Setup for Telephone Service with DSL

In order to achieve reliable telephone connections with the response center, homes with DSL telephone/computer service require additional installation steps. In the following sections, we have listed the three configurations for a successful MXD/DSL installation, in order of commonality.

Follow the general installation procedures steps for POTS systems, and also complete one of the following three configurations. Even with these configurations, it is possible that you will need to call your service provider for more extensive troubleshooting.

1. **Configuration 1: Plug-in DSL filters, supplied by the DSL provider, are installed between telephone wall jacks and telephones in the home.** If Configuration 1 has been installed in your location, plug a DSL filter into the wall jack and then plug the MXD's telephone cord into the DSL filter. See Figure 6 below**.**

   NOTE: Some DSL filters supplied by DSL providers degrade the signals sent by the MXD to the response center. If your MXD has problems communicating with the response center, replace the DSL provider's filter with one from a different supplier. Contact your service provider for assistance in obtaining a high quality DSL filter.
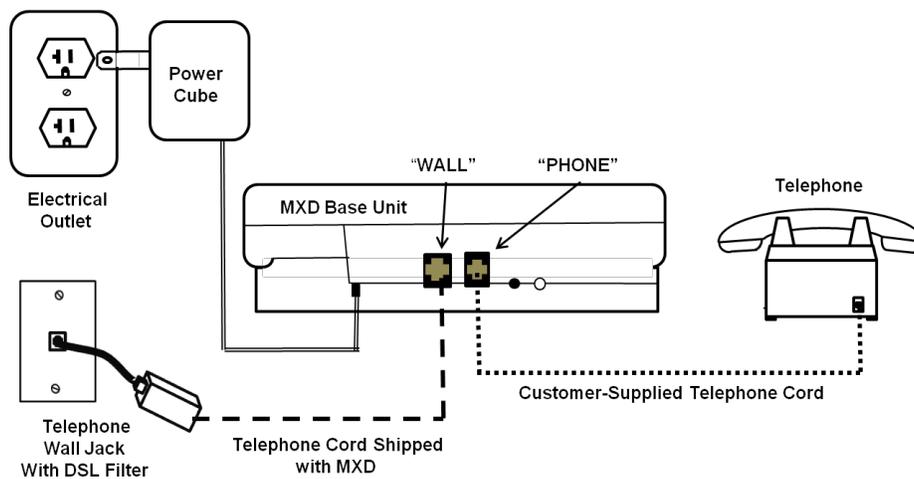
Figure 6. MXD Connections for Locations with a Self-Installed DSL Filter

2. **Configuration 2: The DSL filter is hard wired by the DSL provider.** In this instance the location does not have self-installed filters on the telephone jacks, and the MXD unit should be connected in the same manner as for traditional telephone service. See Figure 7 below.
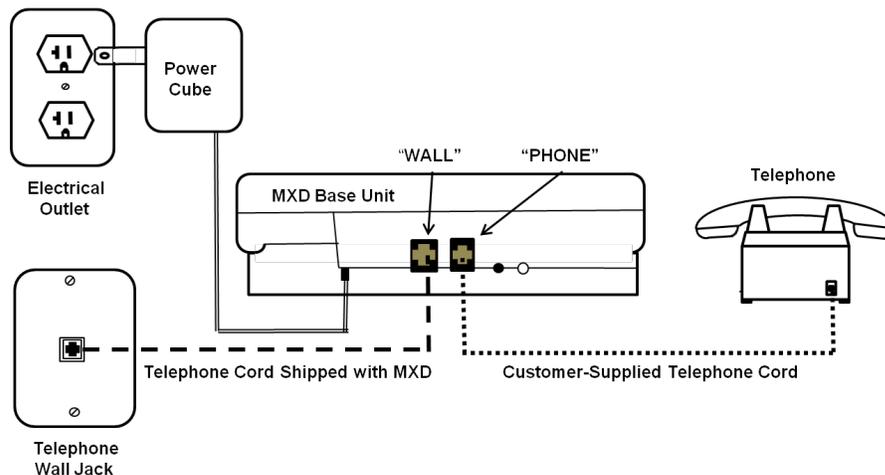
**Figure 7. MXD Connections for Locations with Hard-Wired DSL Filters
(Connections are the same as for standard telephone service)**

3. **Configuration 3. Alternative approach if neither of the above configurations works.** If the MXD cannot communicate with the response center using Configurations 1 or 2, you may be able to connect the MXD unit into a phone jack built into the DSL Modem, which should be located near your computer. See Figure 8 below.
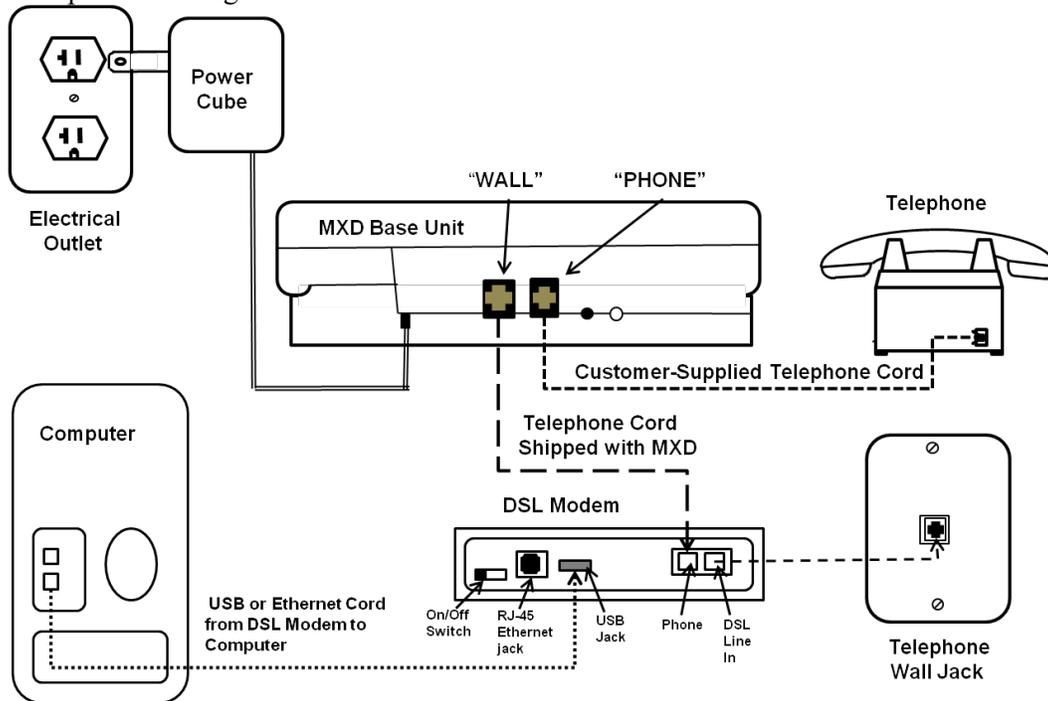

Figure 8. MXD Connection to DSL Modem

Setup for Voice over Internet Protocol (VoIP)

Caution: **The MXD PERS system is designed to be used with either traditional or VoIP based telephone service. Mytrex strongly recommends that a Plain Old Telephone Service (POTS) line be used for any type of alarm system, due to the much higher reliability of POTS. However, increasing numbers of residences now are serviced by VoIP. There are differences in the quality of service provided by different VoIP providers. VoIP telephone circuits are not as reliable as standard telephone systems for various reasons. For example, many Internet providers refuse to provide any service level guarantee, and clearly indicate in their contracts that service may be interrupted at any time. Also, VoIP circuits are dependent on AC electrical service to the residence, unless the VoIP system is equipped with a backup power supply. If your telephone service experiences service interruptions, you may not be able to use your MXD to contact your monitoring center. For these reasons, your VoIP provider should be chosen carefully. Please evaluate the risks of not having your phone service available as part of making the decision whether or not to use VoIP telephone technology. Mytrex, Inc. will not assume any responsibility for alarms that are not received by the response center due to failures or interruptions in any telephone system used by the subscriber.**

The MXD system is connected to a VoIP telephone circuit in the same manner as when a standard telephone circuit is used, and usually no technical adjustments are required.   However, sometimes VoIP systems are installed in a home in a way that one or more wall jacks are not in service, and that situation can cause confusion when first installing the MXD unit.

Connect and verify that your MXD system is connected to an operating VoIP line as follows:

7.   Complete the initial installation steps described on Page 6, which are common to all types of installations.

8.   Find the telephone cord that was shipped with the MXD unit, with a larger modular plug on one end and a smaller modular plug on the other end. Plug the smaller end into the jack on the wall (or the jack on the VoIP modem if the house wiring is not used), and the larger end into the jack on the back of the MXD unit marked "WALL".

9.   Plug the telephone handset cord into the jack on the back of the MXD unit marked "PHONE". Lift the telephone handset receiver that has been connected to the back of the MXD unit, and confirm that there is a dial tone to verify that the MXD telephone cord and the telephone handset cord are properly connected.

10.   If no dial tone is present, check the connections again and correct any problems.

11.   After connection to VoIP has been achieved, continue with steps 3 - 7 of the System Setup for Locations with Plain Old Telephone Service (POTS). See Figure 9 below.
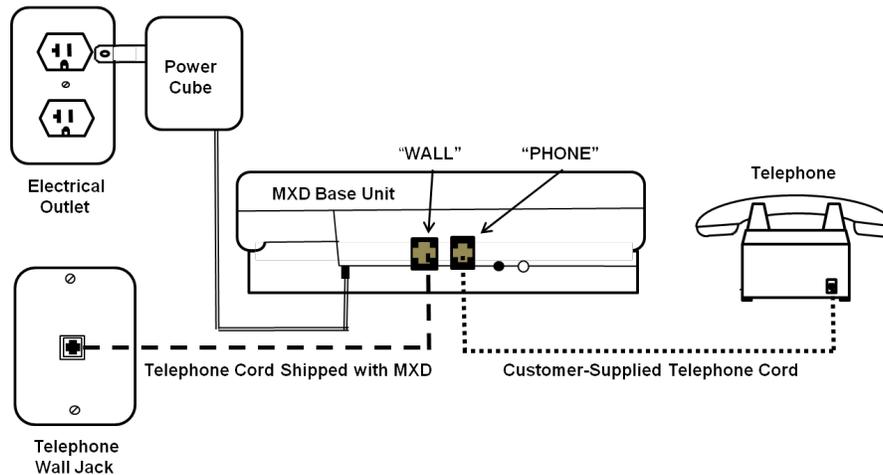

Figure 9. MXD Connection to Voice over IP (VoIP) Telephone Service

<u>Frequently Asked Questions</u>

How can the MXD help me to stay at my home and be safe?
   The MXD allows you to call for help, even if you are alone and cannot reach or use the telephone after your fall. Simply press the PHB and your MXD unit will call the response center where your unit will be identified and connected to a trained attendant. Even if you cannot communicate with your response center, attendants are trained to treat every received alarm as a call for help until they are sure that you are okay. Simply press your PHB to activate your MXD unit at any time.

Is my Personal Help Button (PHB) waterproof?
   Yes. Your PHB is waterproof, and should be worn in the bathtub or shower - both areas where individuals have a high number of slips and falls.

Will my MXD unit affect my telephone?

Your MXD unit will not affect your telephone except when the unit has been activated by an alarm signal. The MXD will disconnect any call in progress and take control of the phone line when it is processing an emergency alarm, but will release the phone line for regular calls after your MXD is disconnected from the response center.

What happens to my medical alert service if I go away for a period of time or move?

Your MXD unit is designed for flexible use. It may be taken with you on extended visits or to a new residence. Please contact your service provider prior to moving or reinstalling your MXD unit.

Will my MXD unit work when I am at the market, or when I leave my house?

Your MXD unit will only work in and around the place where the base unit is installed. The base unit can receive signals from the PHB from a distance of up to 600 feet. Instructions for testing the range of your PHB may be found on page 8, step 6, of this User Manual.

Testing Your MXD unit

You are welcome to test your unit as often as you desire, but it is recommended that you test your MXD unit at least every 30 days. Testing can usually be done in less than 3 minutes and usually will not involve any of your responders. The purpose of testing is to provide security and peace of mind. This is accomplished through regular usage, which promotes confidence and familiarity with your monitoring center and your equipment.

Manual Test

Manually testing your MXD unit is easy. Simply press your PHB and wait for a response center attendant to speak to you through the base unit. The following occurs during a Manual Test:

- Immediately after you press your PHB, the unit will activate and announce, "Calling for Help."
- The unit will dial your response center, and when connected will announce, "Call Connected, Please Wait."
- An attendant will soon talk to you over the unit's speaker, and ask if you need help. Tell them you are doing a monthly test.
- During each test, the attendant may verify your name, address, and telephone number.
- Attendants are available 24-hours a day, allowing you to test at your convenience when you are near the base unit and can talk to the attendant.
- If it is difficult for you to hear or communicate clearly over your telephone or MXD unit, you may want to have a friend or relative with you when you test.

Automatic Voice Test

Your MXD unit can be programmed to conduct an Automatic Voice Test. As mentioned above, it is recommended that you test your unit regularly in order for you to gain familiarity and confidence in your monitoring center and your equipment. When the MXD is programmed to conduct an Automatic Voice test, the following sequence will occur:

- The MXD unit automatically sends a test signal to your response center, during daytime hours.*
- If your telephone is being used, the MXD unit waits until the line is available.
- An attendant greets you over the MXD unit's speaker to verify your test.
- The MXD unit's circuitry is tested, including the microphone, speaker and PHB.
- The attendant may verify your name, address, and telephone number.
- If a test is not performed according to schedule, your service provider may contact you to help determine the cause.

Automatic Dial Test

If you prefer a silent test that requires no interaction, your MXD unit may be programmed to perform the **Automatic Dial Test** instead. The following occurs during an Automatic Dial Test:

- The MXD unit automatically sends a silent test signal during night time hours.*
- If your telephone is being used, the MXD unit waits until the line is available.
- The response center computer acknowledges the test signal.
- The operation of the medical alert base unit is tested.
- If the response center does not receive the expected test, your service provider may contact you to help determine the cause.

*__NOTE__: Your provider can schedule automatic testing for any regular interval of days. If you choose to use the Automatic Dial Test, we encourage you to manually test your MXD unit at least once a month.

> During routine monthly tests, your response center may verify your name, address, and telephone number. This is to ensure that you will receive the fastest response time possible during an emergency. **It is very important that you notify your response center of any information changes made on your account.** You can do this by calling your response center using the telephone number listed on page 2 of this manual, or by pressing your PHB and relaying the information to the attendant.

Additional Use Instructions

Turning off the MXD

The MXD unit does not have an on/off switch. It will automatically turn on when first connected to an AC power supply. To turn off the Mytrex MXD, unplug the unit from AC power, press T/L button three times and hold the help button for several seconds until the unit shuts down and the STATUS light goes completely off.

To turn off the Mytrex MXD, unplug the unit from AC power, press T/L button three times and hold the help button for several seconds until the unit shuts down and the STATUS light goes completely off.

Figure 9. Close-up view of Mytrex MXD Rear Case

STATUS Light Signals

A single STATUS light is located on the left lower edge of the large HELP button on the base unit, next to the word "STATUS" printed on the button (Figure 10). The STATUS light is programmed to display the following light signals when in normal operating mode:

- Steady Green: The MXD is properly plugged in to AC power and a telephone line, and is ready to call the monitoring center
- Steady Red: THE MXD has been activated by an alarm signal and is trying to call the response center.
- Short Green Flash at periodic intervals: AC power is not available and the MXD is being powered from its internal backup battery
- Short Red Flash at periodic intervals: The MXD is not connected to an operating telephone line.
- Short Orange Flash at periodic intervals: The MXD is being powered by its internal backup battery, AND the MXD is not connected to an operating telephone line.

STATUS light location

Figure 10. Status Light Detail

When in RANGE TEST mode, The STATUS light will:

- Display a red light when it is not receiving a signal from the PHB
- Display a green light when it is receiving a signal from the PHB.

Programming a Personal Help Button (PHB)

The MXD unit can be programmed to recognize many PHBs and other devices. These codes are stored in one or more groups of each type of device. The following table summarizes the groups that have been made available for each type of device:

Type of Device	Number of Groups	Number of Devices that Can Be Stored in Each Group
PHBs (mobile devices worn on neck lanyard or wrist band)	4	4
Medication Dispensers	2	1
Smoke Detectors	8	1
Supervised (stationary devices mounted on a wall or surface that must automatically report their status to the base unit at intervals)	8	1
Carbon Monoxide Detectors	8	1

Codes for up to four different PHBs can be programmed into each of the four PHB groups. Each of the PHBs whose codes are stored within a single group will be treated the same by the response center. This allows a subscriber to have more than one PHB that always is recognized in the same way. For example, Mary may choose to order two different, including one PHB on a neck lanyard, and other PHB on a wrist straps. If codes for both of these PHBs were programmed into the first PHB group, both signals would simply be recognized as Mary's PHB.

Codes for separate PHBs also can be programmed into separate groups so each PHB will cause a different alarm signal code to be sent to the response center, and the response center will be able to recognize each PHB as distinct from the other PHB. For example, one PHB might be programmed into Group 1 and another into Group 2, with one person associated with the PHB in Group 1 and another person associated with the PHB in Group 2. This is useful in such situations as a husband and wife sharing one unit, where each person has their own personal information and responder list on file.

To program new PHB codes into PHB GROUP 1, perform the following steps:

1. With the unit turned on, press and release the T/L button on the rear of your MXD base unit. The base unit will announce, "Range Test Mode."
2. Press and release the base unit HELP button one time. The base unit will announce, "Program Personal Help Buttons."
3. Press and hold down the colored button on the PHB. After about two or three seconds, the unit will sound a steady tone for about one second, pause for two seconds, then sound the steady tone for another second. The unit will repeat this tone every three seconds until the button is released. This is the signal that the unit has recognized and stored the PHB code.
4. After at least one tone is received, stop pressing the PHB.
5. If more than one PHB is to be programmed into Group 1, press and hold the second PHB until the unit sounds a the tone sequence of one second tone followed by two seconds of silence.
6. Repeat the process for up to a total of four PHBS in Group 1.
7. The MXD can only remember up to four codes in each PHB group. If a PHB is programmed into a group when there are already four PHB codes stored in that group, the MXD will make room for the new PHB code by discarding the code already stored in the group for the PHB that has gone the longest time since the MXD has received the PHB's signal.
8. After four (or fewer if desired) PHB codes have been programmed into a PHB group, press the Reset button on the back of the unit. The MXD will announce, "System Ready." This completes the programming sequence, and each of the PHBs recorded in Group 1 should now be recognized by the unit.
9. Initiate a test call for each PHB by pushing the PHB and allowing the unit to call the response center.
10. If each test call is successful, the PHB is ready for service. Reprogram any PHBs that do not activate the base station when pushed.

To program new PHB codes into PHB Groups 2, 3, or 4, perform the following steps:

1. With the unit turned on, press and release the T/L button on the rear of the MXD base unit. The base unit will announce, "Range Test Mode."
2. Press and release the base unit HELP button one time. The base unit will announce, "Program Personal Help Buttons."
3. Press and release the base unit HELP button a second time. The base unit will announce, "Program Personal Help Buttons Group 2."
4. Program PHB codes into Group 2 by following steps 3 through 6 in the instructions for programming PHBs into Group 1.
5. If PHB codes are to be programmed into Group 3, press the HELP button again. The base unit will announce, "Program Personal Help Buttons Group 3."
6. Program PHB codes into Group 3 by following steps 3 through 6 in the instructions for programming PHBs into Group 1.
7. If PHB codes are to be programmed into Group 4, press the HELP button again. The base unit will announce, "Program Personal Help Buttons Group 4."

8. Program PHB codes into Group 4 by following steps 3 through 6 in the instructions for programming PHBs into Group 1.
9. After all PHBs are programmed into the desired groups, press the RESET button one time. The MXD will announce, "System Ready." This completes the programming sequence, and each of the PHBs recorded in Group 1 should now be recognized by the unit.
10. Test all PHBs by pressing their buttons and the unit to call the response center.
11. If each test call is successful, the PHB is ready for service. Reprogram any PHBs into the desired group that do not activate the base station when pushed.

Provisions for Supervisory Personal Help Buttons, Smoke Detectors and Carbon Monoxide Monitors (not currently available)

The manufacturer has incorporated code groups for up to eight supervisory devices, eight smoke detectors and eight carbon monoxide (CO) detectors into the MXD unit. Each group can remember one device code. These groups are accessed by placing the MXD base unit into RANGE TEST MODE by following steps 1 through 3 for programming medication dispensers, and then by pressing the T/L button again to enter in sequence each of the eight smoke detector, eight supervisory PHB, and eight CO detector groups. Please note that no devices are currently available that are set up to communicate with the MXD equipment, and the groups for these detectors should skipped for the present time when programming the MXD to recognize PHBs and medication dispensers. Press the RESET button one time to exit the device programming mode. When the RESET button is pressed, the unit will return to normal mode and announce, "System Ready."

Mytrex MXD Features

Microphone and Speaker
The microphone in your MXD unit is sensitive enough to hear voice communication around corners and in other rooms of your home. You do not need to be in the same room with the MXD unit for the response center to hear you! Your MXD unit's audio system is engineered to provide for an increase of up to 83 times the normal volume.

Two-Way Voice Communication
After connecting to the response center, your MXD unit shifts to a voice communication mode. When in this mode, the response center attendant switches the MXD base unit between "talk" and "listen" modes. This greatly increases the coverage and range of clear communication between you and the response center attendant.

Remote Answering Feature
Your MXD may be used to answer an incoming telephone call. If your phone is ringing and you want to use this feature, simply push the PHB and the MXD will become active in two-way voice communication mode. To end the call, simply push the PHB again. **Hint:** Push the button while the phone is actually ringing to make sure the calling party is waiting for you to answer the call. **Note:** In order to ensure that the phone line is cleared in case you forget to end the call, the MXD will only remain connected for a pre-set number of minutes, after which the MXD will automatically disconnect the call even if you are still having a conversation. In the event that you need to send an alarm to your monitoring center while in remote answer mode, push the PHB to disconnect the call, wait about 10 seconds, and then push your PHB again to initiate the alarm call.

Inbound calling to the MXD

Your monitoring center and individuals authorized by you may activate your MXD to answer their inbound calls without your doing anything. To use this feature, the calling party must first be provided with a four digit code. A calling party with a valid code first calls your telephone number and lets it ring once, and then disconnects the call. Then the individual waits 20 seconds and calls again. The MXD will answer the second call after the third ring and send a beep signal. The caller then enters their code and the MXD will shift to two-way voice mode if the code is valid.

Waterproof PHB

Your PHB may be worn as a necklace, or a bracelet. Both styles are waterproof, and should be worn in the bathtub and/or shower. Your PHB uses an indicator light to show the status of its internal battery. While your PHB is being pushed, the light on your PHB flashes green to indicate the internal batteries are good; a red light indicates the internal batteries may be weak. Every time the response center receives a signal from your PHB, its battery status is reported. Soft Touch PHBs, which require about half the pressure to activate, are available. For more information contact your service provider.

Personal Help Button Performance

Your MXD unit is equipped a highly sophisticated radio receiver that is carefully matched to the PHB. The receiver has very high sensitivity, and interference rejection. The PHB is waterproof and designed specifically for PERS service. **The base unit can receive signals from the PHB from a distance of up to 600 feet.***

> * Your MXD unit is designed to provide for your peace of mind and comfort within the privacy of your home and yard. The signal from the PHB is limited by various factors, and may vary from home to home. It is your responsibility to know the effective operating limits of your PHB, and to use it within these limits. See page 7, step 5 for instructions on how to complete a PHB range test.

Battery Monitoring

Your MXD unit is equipped with an internal rechargeable battery; the battery provides uninterrupted power to your MXD unit for up to 80 hours if AC power is lost. While the battery powers your MXD unit, the battery condition is constantly monitored by the MXD unit.

ETL Listed

The Mytrex MXD has been certified by ETL to UL Standards 1637 and 1635, and Canadian CSA standards for Home Health Care Signaling Equipment. The ETL Listed Mark is proof that your MXD unit has passed rigorous product safety testing, and has achieved certification.

Remote Programming

Any operational function or parameter can be reprogrammed to customize your MXD unit to your specific needs, such as dialing "9" to obtain an outside line from your telephone system.

Optional Features

Automatic Voice Test

Subscribers may request the MXD to initiate periodic Automatic Voice Test from their service provider. Many subscribers feel that these tests provide them with added safety and peace of mind. During an Automatic Voice Test all critical functions of your MXD unit are tested, including the microphone, speaker and PHB, to ensure the system is working properly. When the Automatic Voice Test feature is enabled, the MXD will automatically send an "Automatic Voice Test" message to your response center. The attendant will greet you, and may ask you to press your PHB, verify your address and phone number, and ask if any assistance is needed.

Automatic Dial Test

If the Automatic Voice Test is not used, it is strongly recommended that the Automatic Dial Test feature of your MXD unit be used. This test verifies the ability of your MXD unit to deliver a message to your response center. When the Automatic Dial Test feature is enabled, your MXD unit will automatically send an "Automatic Dial Test" message to your response center. If the response center does not receive an expected test call from your MXD unit, the response center or your service provider may contact you to help determine the cause.

AC Power Monitoring

Your MXD unit can detect AC Power loss and AC restore, and may be programmed to send automatic "AC Fail" and/or "AC Restore" messages to the response center.

Additional PHBs

Your MXD unit can be programmed to recognize many PHBs simultaneously, either in groups or individually. Your MXD unit is easily reprogrammed, in your home, to receive the additional PHBs. Please see "Programming a PHB" instructions on page 14, or contact your service provider.

Audible Alarm

Your MXD unit has an audible alarm that can be silenced for use in applications such as domestic violence, rape crisis, etc.

 *For more information on Optional Features, please contact your service provider.

Mytrex MXD Troubleshooting Guide

#	Condition					Action
1	STATUS light off	No	⬇	Yes	➔	If the unit is plugged into AC and a phone line, press the RESET button to wake up the unit if it is in an inactive state. Otherwise, plug the unit into a working outlet, not controlled by a light switch. Connect the telephone cord to an active wall jack. The unit should turn on automatically and the STATUS light should show a steady green light. If it does not turn on after verifying AC power and phone circuit are both available, contact Customer Service.
2	STATUS light is a steady green	No	⬇	Yes	➔	The unit is connected to AC power and to an active telephone circuit, and should be ready to send an alarm to the response center Cnduct a manual test to verify the unit is operating correctly.
3	STATUS light briefly flashes green every few seconds	No	⬇	Yes	➔	The unit is not receiving AC power and is operating on its internal backup battery. Check that the unit is plugged into a live AC outlet that is not controlled by a light switch. If still flashing green when connected to AC power, check for a damaged power cord and contact Customer Service.
4	STATUS light briefly flashes red every few seconds	No	⬇	Yes	➔	The unit is not detecting an active telephone circuit. Check that the unit is properly connected to an active telephone wall jack with the proper cord. Check for whether the telephone wall jack is active by plugging in a telephone handset and checking for a dial tone.
5	STATUS light briefly flashes orange every few seconds	No	⬇	Yes	➔	The unit is not connected to a live AC power outlet, AND is not connected to a live telephone line. Check the AC power and phone connections (steps 2 and 3).
6	STATUS light is a steady red	No	⬇	Yes	➔	The unit is trying to dial the response center or is in Range Test mode and is not receiving a PHB signal. If the unit should be calling for help and has displayed the red steady STATUS light for more than 30 seconds, reset the unit, place it in Monitor mode, and test the unit to determine why the unit is not connecting to the monitoring center.
7	Unit connects and enters two way voice mode, but there is a lot of static noise on the speaker	No	⬇	Yes	➔	Does the home have DSL service? If yes, check that a DSL filter is installed between the unit and the telephone wall jack.

Mytrex MXD Troubleshooting Guide (Cont.)

6	When pressed, does the PHB's indicator light flash?	Yes ⬇		No ➜	The PHB needs to be replaced. Contact your provider. See pages 12 and 13 for instructions on programming a new PHB.
7	What color is the PHB's indicator light?	Green ⬇		Red ➜	Press the button several times to exercise it. If the light changes to green, and stays green for at least 10 seconds, the button is fine. If not, replace the PHB.
8	Does the PHB activate the unit	Yes ⬇		No ➜	Program the PHB to the unit. See pages 12 and 13
9	If the unit is having trouble dialing and connecting to the response center: Does the Subscriber have Standard Telephone Service?	Yes ⬇	DSL ➜		Requires a properly installed DSL Filter. (Radio Shack #279-101)
			CableTelephone Service ➜		The MXD is compatible with cable telephone service. Verify that the unit is connected properly and displays a green STATUS light, and verify that the correct dialing instructions and telephone number have been programmed into the unit. Then test the unit.
			PBX ➜		Confirm that the correct dialing instructions and telephone number have been programmed into the unit. If this does not correct the problem, the unit may require an analog line (e.g., a fax line) to work properly.
			VoIP ➜		The MXD is designed to work with VoIP systems. Check that the residence power is on and that the Internet provider is in operation. The MXD will not function if there Internet provider is experiencing an outage or if AC power/backup power is not available for the residence's Internet equipment.
10	Does the telephone service require a dialing prefix? (i.e. dial 9)	No ⬇		Yes ➜	The Unit needs to be programmed to dial a prefix. Call your provider for programming.
	Use monitor mode as described in advance troubleshooting techniques, or call your provider's customer service.				

Advanced Troubleshooting Techniques

Using Monitor Mode to Troubleshoot Connection Problems

By placing the unit into monitor mode you may be able to discover why the Mytrex MXD is not connecting to the response center, if the unit seems to be connected properly to AC power and a phone line. Monitor mode allows the troubleshooter to listen to the unit's dialing sequence and determine the unit is doing during each step of the call-in process. To test the dialing sequence while using the monitor mode:

1. Place the Mytrex MXD in monitor mode by pressing the T/L button twice (See Page 5).
2. Send a test signal and listen for each of the following:
   - Dial tone
   - Dialing (make sure that dial tone is broken)
   - Ringing
   - A series of tones that represent the following data sequences
     - Receiver answer tones
     - Kissoff
     - Data Transfer
     - Date/Time Stamp
   - A monitoring center attendant asking if you need help.
3. If a dial tone is not present, check to see if an extension is off hook somewhere on the circuit.
4. If a dial tone is present but is not completed, confirm that correct telephone numbers are programmed into the unit, including any necessary "9" or other preliminary codes to access an outside line
5. If the unit seems to connect to the response center but cannot transfer data, contact your provider at the telephone number on Page 2 of this manual.

Important Note: The Personal Help Buttons and internal receiver supplied with your MXD are designed and tested to high and exacting specifications. However, due to the laws of physics, vagaries of radio transmissions, and the limited output power allowed by the Federal Communications Commission, the user should be aware that:

- All receivers may be blocked by radio signals occurring on or near their operating frequencies, regardless of the code selected
- A receiver can only respond to one transmitter signal at a time regardless of the number of codes that it has been programmed to recognize
- Wireless equipment should be tested regularly to determine if there are sources of interference and to protect against faults

If you experience any indications that something may be interfering with the operation of your MXD unit, contact your service provider as soon as possible.

If you have not been able to solve a performance problem by using the trouble shooting guide, the unit may need to be replaced. Please call your service provider for additional assistance.

Repair Information

If trouble is experienced with this equipment (MXD personal emergency response system), please contact your provider for warranty or repair information.

<u>Notifications</u>

Your MXD has been registered with the U.S. Federal Communications Commission (FCC), in accordance with Part 15 and Part 68.

The FCC requires that you connect your MXD to the nationwide telephone network through a modular telephone jack (USOC RJ11C, RJ11W, RJ14 or RJ31X). This equipment may not be used with coin telephone lines or party lines. Contact the state public utility commission, public service commission or corporation commission for more information.

Notification to the Telephone Company:
Upon request of your local telephone company, you are required to provide them with the following information:
1. The "Line" to which you will connect your MXD (that is, your phone number); and
2. The MXD's FCC Registration Number and Ringer Equivalence Number (REN). Those numbers are on the bottom of your MXD. The REN is used to determine how many devices may be connected to a telephone line.

Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most, but not all, areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact your telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (E.G., 03 is a REN of 0.3).

Repair information:
If trouble is experienced with this equipment (MXD personal emergency response system), please contact your provider for warranty or repair information. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is solved.
Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Rights of the Telephone Company:
If this equipment (MXD personal emergency response system) causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

Interference Information: FCC Rules Part 15: The MXD complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: Your MXD has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful

interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Move the MXD away from your radio or television
- Plug the MXD into a different power outlet than your radio or television.
- Reorient or relocate the receiving antenna.
- Consult the dealer or an experienced radio/TV technician for help.

Infrequently used radio links should be tested regularly to protect against undetected interference or fault. The Manufacturer suggests at least weekly.

A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor, dealer, or installer and these facts should be communicated to the ultimate user.

ACTA (Administration Council for Terminal Attachments) Information:
This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of this equipment is a label that contains, among other information, a product identifier in the format US: AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises' wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.
If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of the MXD does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.
Caution: In order for "alarm dialing equipment" to be able to seize the phone line to report an alarm or other event when other customer equipment (telephone, answering system, computer modem, etc.) connected to the same line is in use, "alarm dialing equipment" must be connected to a properly installed RJ31X jack. The RJ31X jack must be connected in series with, and ahead of, all other equipment attached to the same phone line. Series installation of an RJ31X jack is depicted in Figure 11. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer about installing the necessary jack and alarm dialing equipment for you.
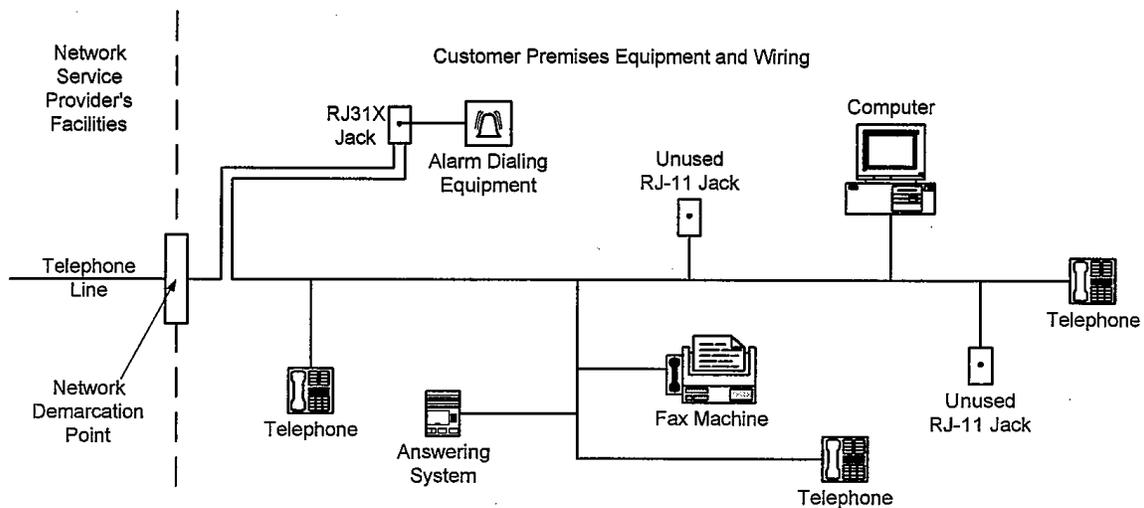
Figure 11. RJ31X Jack Series Installation

Caution: If the RJ31X jack is not installed correctly, this equipment cannot report an alarm when other equipment (telephone, answering system, computer modem, etc. connected to the same phone line is in use.

Notice to the User:
Any changes or modifications not expressly approved by Mytrex, Inc. for compliance could void your authority to operate the equipment.

CAUTION: No User Serviceable Parts Inside Equipment
Do not disassemble this device. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

Industry Canada Registration Information:
The Mytrex MXD is registered for use in Canada under the company and UPN number 9663A-MXD.
The RA3T transmitter is registered for use in Canada under the company and UPN number 9663A-RA3T.