

# USER MANUAL

## Tunstall CEL MXD

*Cellular Medical Alert System*



Tunstall Americas Customer Care: 1-877-266-0733

# TABLE OF CONTENTS

- 3 Introduction to the CEL MXD
- 4 What's in the Box
- 5 Base Console
- 6 Personal Help Button
- 7 Quick Start Guide
- 8 Installation Steps
- 9 Range Test & System Test
- 10 Calling for Help
- 11 CEL MXD Features
- 13 Help and Advice
- 14 Frequently Asked Questions
- 15 Removing and Returning the System
- 16 Troubleshooting – Use of Status Lights
- 17 Troubleshooting – Use of CEL MXD Spoken Messages
- 20 Notifications
- 21 Notice to End User: Wireless Telephone Reliability Considerations

## Introduction to the **CEL MXD Medical Alert**

Thank you for choosing the CEL MXD Medical Alert to help you maintain your independence and well-being at home. The CEL MXD is your personal connection to care 24 hours a day, 7 days a week at the touch of a button. The CEL MXD uses the cellular network to connect you with the monitoring center. When the button on the console unit or Help Activator is pressed, the console unit dials the monitoring center and enables hands-free communication between you and a trained response professional to identify the nature of your call and send help if needed.

The CEL MXD has been specifically designed to operate on the cellular telephone network and therefore does not require a traditional land line telephone connection to connect you with the monitoring center.

### **IMPORTANT INFORMATION ABOUT CELLULAR NETWORKS AND THEIR LIMITATIONS:**

The home console unit requires a satisfactory GSM cellular network connection in order to operate and transmit a signal to the monitoring center. If limited or no cellular network coverage is available, the console unit will be unable to call the monitoring center. Many factors could affect the operation of cellular networks beyond the control of Tunstall or your Service Provider. Tunstall or your Service Provider is not responsible for maintaining or monitoring the reliability of cellular networks used for communication with the system and can only provide timely and accurate response if all equipment and networks are functioning and providing adequate signal strength to dial the monitoring center. Users should test their equipment on a regular basis to identify any deterioration of network service and signal strength.

### **INTENDED USE**

This device is intended to enable a user to request assistance by providing an additional method of communication in the event of a potential emergency, specifically in a non-clinical setting where a fixed line telephone communication path cannot be used.

# What's in the box?

## Box Contents

- 1 CEL MXD All in One Cellular PERS device



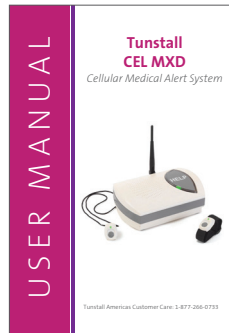
- 1 7-inch Cellular Antenna



- 1 Personal Help Button (PHB) or MyActive Fall Detector

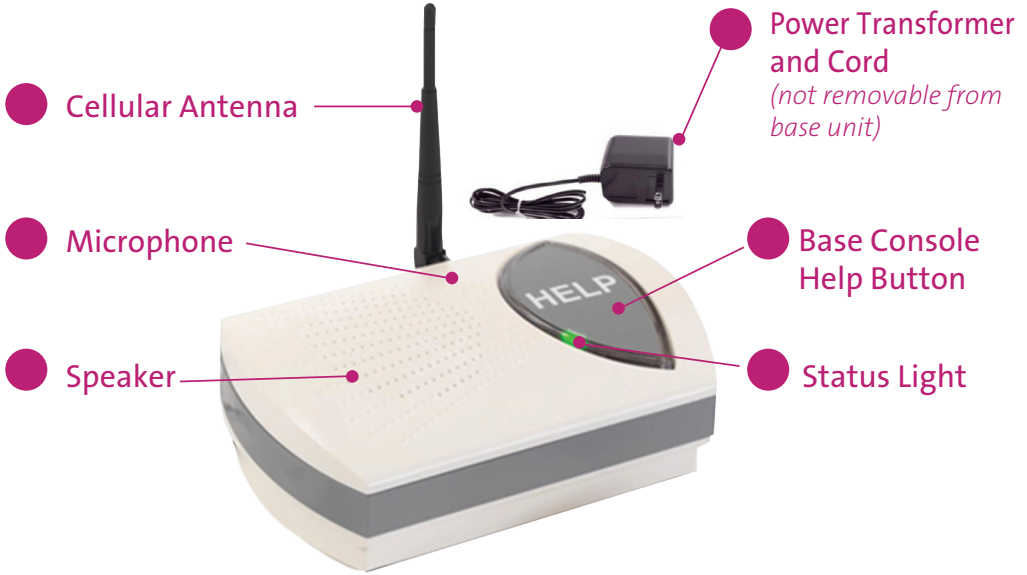


- 1 Quick Install Guide and User's Manual

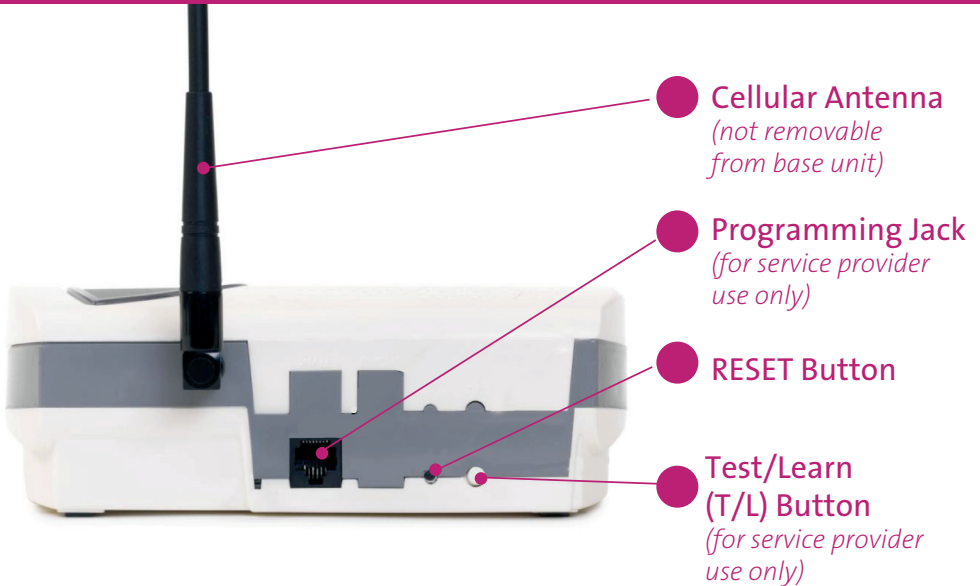


*\* PHB also available as a wristband accessory.*

# Base Console Front View



# Base Console Back View



# Personal Help Button (PHB)

## Pendant Model PHB



## Wrist Strap Model PHB\*



## MyActive Fall Detector\*



\* Optional

# Quick Start Guide

## Do's

**Do:** Keep the base console connected to the AC power at all times.

**Do:** Contact Customer Care (1-877-266-0733 toll free) as soon as the red LED light on your help activator indicates a low battery or if you lose your help button/activator.

**Do:** Regularly test the base console and help activator to familiarize yourself with the service and ensure you are comfortable communicating with monitoring center personnel.

## Don'ts

**Don't:** Expose the base console to water or other liquids.

**Don't:** Connect cables other than those supplied with the unit.

**Don't:** Connect the base console to an outlet with an on/off switch.

**Don't:** Place your base console next to something that makes a lot of noise, such as next to a television, radio, washing machine, or dishwasher.

**Don't:** Put your base console right next to your stove or close to any other heat source.

**Don't:** Set the base console in a place where it will get damp, such as a bathroom, or near house plants that are sprayed at any time.

**Don't:** Place the base console very close to any large metal objects, such as microwave ovens or refrigerators as large pieces of metal may stop the signals from the help activator from reaching the home console.

**Don't:** Place your base console closer than four feet from something that may emit electromagnetic interference, such as a cordless telephone, CD or video player, or personal computer, as this may inhibit longer range coverage.

**Don't:** Relocate the base console after installation without repeating the installation test process to check for continued satisfactory operation.

# Installation Steps

1. Plug the CEL MXD power cube into an AC power outlet that is not controlled by a light switch. (Figure 1)
2. The CEL MXD will automatically turn on and announce “System Initializing.”

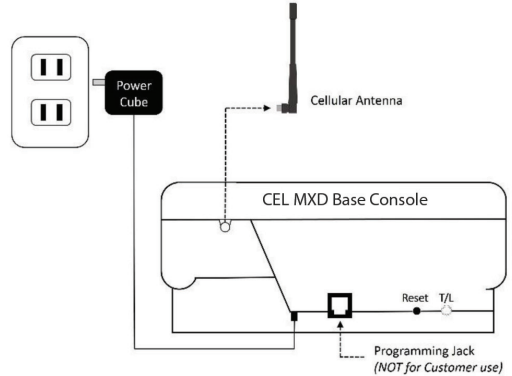
- When first installed, the unit will speak the signal strength, usually followed by either “Cell Module not activated” or “Insufficient Cell Service.” If the CEL MXD has been previously activated, the message “[number] bars, System Ready” will be heard instead.

**Note: These initial messages occur due to delays in transmitting data back and forth**

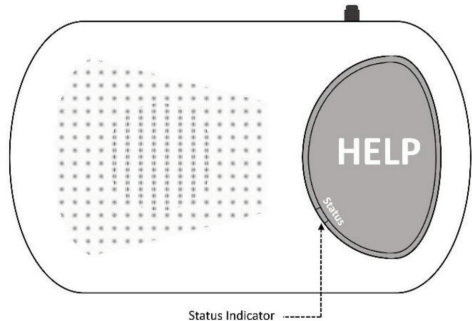
**during the first activation, and do not mean that something is wrong with the CEL MXD. Continue with the following steps.**

- If the unit announces, “Cell module not activated” when the unit is first plugged in to AC power, wait about 15-20 seconds for the unit to finish its setup process. The STATUS indicator should show a steady green light (Figure 2). When this occurs, push the RESET button. After a few seconds the unit should announce “[number] bars, system ready.”
- If the unit again announces, “Cell Module not activated,” please contact your service provider for assistance.

**Figure 1: CEL MXD Setup**



**Figure 2: Status Indicator Location**





# Installation Steps Cont.

3. If the MXD again announces, “Insufficient Cell Service,” please relocate the base unit to another place in the residence and plug it into a nearby AC outlet that is not controlled by a switch. Wait 30 seconds and then press the RESET button. If the unit continues to announce “Insufficient Cell Service,” try another location and repeat until a strong signal is detected. If you are unable to find a location in the residence that has sufficient cell service, please contact your service provider. **Note: It is important that the signal strength be 1.5 bars or better. If the signal strength is not sufficient, the CEL MXD may not activate with the cellular network or function properly.**
4. The Status light located on the left edge of the large HELP button will appear steady green, indicating that the CEL MXD is connected properly and the cellular radio has been activated with the cellular company.
5. Test the range of the PHB to make sure it works throughout the home and yard. *See Testing the PHB (Range Test Mode), below.*
6. Initiate your first call to the Response Center by pressing the PHB or the HELP button.

Please contact your service provider if the CEL MXD does not connect.

# Testing the PHB (Range Test)

1. Locate the T/L button on the back of the CEL MXD and press one time (Figure 1).
2. The CEL MXD will announce “*Range Test Mode.*”
3. Immediately activate the PHB by pressing and holding down the button. A green light will illuminate on the PHB and a steady tone will sound from the CEL MXD, as long as it is detecting the PHB.
4. While activating the PHB, walk around all areas of the home and yard. Listen for gaps in the tone. Gaps indicate “dead zones” where the PHB is not detected. If “dead zones” are detected, try relocating the CEL MXD and/or contact your service provider.
5. To finish the Range Test, stop pressing the PHB. After the tone stops, press the black RESET button on the back of the CEL MXD (Figure 1). The unit will announce the “[number] bars, System Ready.”

# Testing the CEL MXD unit

***Note: The manufacturer recommends that the CEL MXD be tested at least every 30 days. Response Center Operators are available 24 hours a day to help.***

1. Push the button on your activator and wait for the Response Center Operator to speak to you through the CEL MXD.
2. When the operator answers, simply inform him/her that you are doing a test.



# Calling For Help

Simply press the button on your Personal Help Button (PHB) or MyActive Fall Detector to activate your CEL MXD unit at any time. You can also press the large HELP button on top of the base console.

Once the help signal is initiated, the base console will announce “Calling for help”. This phrase will be repeated every 15 seconds until the call is connected with the Response Center. Shortly after connecting with the Response Center an Operator will attempt to communicate with you through the system’s two-voice base console to ascertain the nature of the call and provide appropriate assistance.

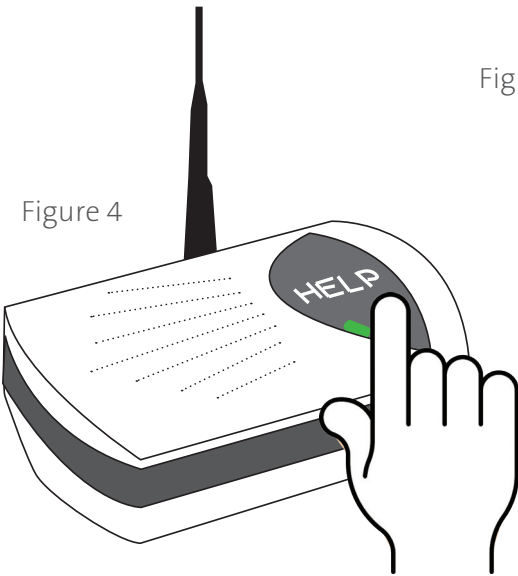


Figure 4

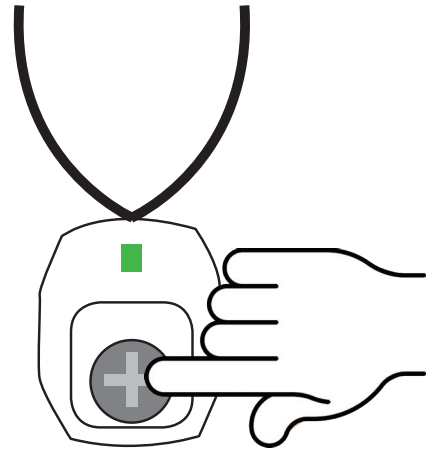


Figure 3

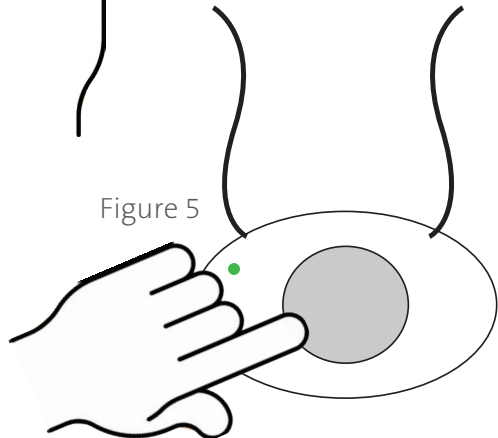


Figure 5

# CEL MXD Features

## **Microphone and Speaker**

The microphone in your CEL 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 CEL MXD unit for the response center to hear you.

## **Two-Way Voice Communications**

After connecting to the response center, your CEL MXD unit acts like a speakerphone. This allows for convenient two-way voice communication between you and the response center operator.

## **Control Buttons**

The Reset and Test Learn (T/L) buttons are placed on the back of the CEL MXD. These two buttons and the base unit HELP button on the top of the unit are used by authorized individuals to conduct range tests, turn off the MXD, and program the CEL MXD to recognize personal help buttons (PHBs).

## **Waterproof Personal Help Button (PHB)**

Your PHB may be worn as a necklace or a bracelet. Both styles are waterproof and should be worn in the bathtub and shower. Your PHB uses an indicator light to display the status of its internal battery. While your PHB is being pushed, a green light will indicate that the internal battery is good. A red light indicates that the internal battery may be weak – please notify your service provider.

## **Fall Detector – optional**

MyActive fall Detector may be used as an option to the standard PHB. In addition to standard Help button functionality, the Fall Detector has the ability to automatically detect falls and signal the ERC\*. The Fall Detector is waterproof and should be worn in the bathtub and shower. Your Fall Detector uses an indicator light to display the status of its

Continued on next page

# CEL MXD Features

internal battery. While your Fall Detector is being pushed, a green light will indicate that the internal battery is good. A red light indicates that the internal battery may be weak – please notify your service provider.

## **Personal Help Button Performance**

The CEL MXD unit is equipped with a sophisticated receiver that is carefully matched to the PHB. The CEL MXD unit can receive signals from the Personal Help Button when it is up to 600 feet away from the base unit.

## **Battery Monitoring**

Your CEL MXD unit is equipped with an internal rechargeable battery. The battery provides constant power to your CEL MXD unit for up to 60 hours if power is lost. The CEL MXD constantly monitors its battery condition when the unit is being powered by its battery.

## **Automatic Testing**

Your CEL MXD unit is programmed to do a silent self-test every 28 days.

## **Manual Testing**

It is recommended that you test your unit monthly by pushing your PHB or MyActive Fall Detector. We want you to be familiar and comfortable with your CEL MXD and the response center.

## **Additional PHBs**

Your CEL MXD unit can be programmed to respond to multiple PHBs. If you require multiple PHBs, please consult your service provider.

## **Audible Alarm**

Your CEL MXD unit has an audible alarm that will announce ‘Calling for help’ when activated by pressing your PHB, MyActive Fall Detector, or HELP button on the base console.

# Help and advice

## False alarms

If you accidentally activate a help call, please do not worry as your monitoring center is always happy to hear from you and raising of the alarm acts as a useful test of your home console.

## Cleaning

Dust the home console with a soft cloth moistened with a gentle detergent if required. Ensure that no moisture goes through the speaker grill. Do not spray cleaners directly on the CEL MXD base console. Extensive moisture can cause damage to the CEL MXD system. The help activator can also be cleaned in the same manner.

## Moisture

Do not position your home console where it may come into contact with water or moisture. The Help activator is waterproof up to 3 feet water depth (IP67 standard). It can be worn in the shower or bath however, it should not be submerged for more than 30 minutes.

## Battery information

Please contact Customer Care if the battery needs to be replaced. Do not open the battery compartment or attempt to replace the battery in either the base console or Help activator.

# Frequently Asked Questions

## **Is my CEL MXD compatible with all cellular networks?**

The CEL MXD is only designed to operate with the AT&T 3G Cellular Network. It is not designed to work with any other cell network or with any land-line telephone service. Please contact your service provider if your CEL MXD does not find an AT&T cell signal or reports that the signal is weak.

## **Will my CEL MXD unit affect my personal cell phone?**

Your CEL MXD unit uses its own dedicated cell phone account and telephone number, and will not interfere with any aspect of your own personal cell phone. You cannot plug any telephone handset or other cell phone into your CEL MXD.

## **What if I am outside and you can't hear me?**

An ERC Operator will attempt to contact you over the CEL MXD. If you do not respond, the Operator will then follow your response center's procedures, such as calling your home telephone, your cell phone, listed responders in the order you have provided, or calling your local emergency services.

## **Is my Personal Help Button (PHB) waterproof?**

Yes. Your PHB is waterproof and we encourage you to wear it in the bathtub or shower.

## **If I press my Help button but the system is unable to complete the call (network or other issues) what happens?**

The system will attempt to complete the call a total of 20 times over the course of approximately 1 hour. If the system is still unable to complete the call after this time, the system will end the call sequence. You would need to re-initiate the call by pressing your Help button.

## **If I will be away for an extended period of time or moving, can I take the CEL MXD with me?**

The CEL MXD is not a mobile Medical Alert. Providing proper emergency response is predicated on having a current and accurate home location. Do not attempt to remove or relocate the system. If you will be away for an extended period of time or moving, please notify your service provider at least two weeks beforehand.

# Removing and Returning Your System

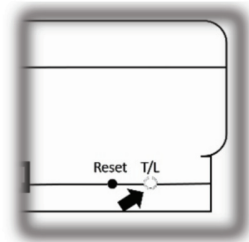
If services need to be discontinued, please inform your service provider or Customer Care (1-877-266-0733). Advise them of the reason for discontinuation of service and request removal and return instructions.

## Turning off the CEL MXD

**Note:** *The CEL MXD automatically turns on when it is connected to AC power. When the CEL MXD is removed from service and/or relocated, it is very important to turn it off to preserve the battery and to keep the unit from initiating any inadvertent alarms while in transit.*

1. Unplug the CEL MXD from the AC outlet.
2. After the Status light begins to flash, press the T/L button on the back of the CEL MXD **three** times (Figure 6).
3. The base unit will speak “Hold HELP to turn off.” Press and hold the large HELP button on top of the base unit until the Status light stops blinking.

Figure 6: Test/Learn (T/L) Button





# Troubleshooting – Use of Status Lights

The CEL MXD speaks the system status each time the RESET button is pressed. The Status light displays the following light signals when operating:

Behavior	Description
Steady Green	Unit is properly connected
Steady Red	Unit is currently trying to call the response center
Short Green Flash	AC power not available, unit is running on battery
Short Red Flash	Cellular connection problem or weak signal strength
Short Orange Flash	Cellular connection problem and AC power problem

*When the CEL MXD is in “Range Test” mode, the **Status** light will show:*

Behavior	Description
Steady Green	Base unit is receiving signal from the PHB
Steady Red	Base unit is NOT receiving signal from PHB

# Troubleshooting – Use of CEL MXD Spoken Messages

The CEL MXD is programmed to audibly announce status and other messages during its operation. The following table describes the meaning of those messages:

Spoken Message	Meaning	Suggested Action
Please wait an operator will be with you shortly	The call has been received by the response center and will be routed to an Operator.	Wait for an ERC Operator to answer. Do not press your PHB again or attempt to disconnect the call.
Call disconnected	The call did not go through. This may happen for several reasons, such as a weak cell signal, busy cell circuits, or other reasons.	The unit should automatically try to call again in about 20 seconds after this message has been spoken. The user may also press the PHB again to initiate a new alarm call without delay.
Calling for Help (repeated every 15 seconds until the call is connected to the ERC)	The base unit has received an alarm signal and is starting its process of calling the response center.	Wait for the call to be connected to an ERC Operator. Do not press your PHB again or attempt to disconnect the call.
Cell module not activated	The cell module in the CEL MXD has not been set up with the cellular provider and calls cannot be processed.	Contact Technical Support or your service provider.
Cell module suspended	The cell module has been taken out of service by your provider or the cellular provider and calls cannot be processed.	Contact Technical Support or your service provider.

Spoken Message	Meaning	Suggested Action
Connecting	The call has reached the cellular call processing center and is being routed to the ERC.	None required. Do not press your PHB again or attempt to disconnect the call.
Dialing	The CEL MXD is dialing the ERC.	Wait for the call to be connected to an ERC Operator. Do not press your PHB again or attempt to disconnect the call.
Factory test mode	The T/L button has been pressed with the RESET button pushed at the same time, placing the unit in Factory Test Mode.	Press the RESET button to restore the unit to normal operation.
Hold HELP to turn off	The CEL MXD base unit is ready to be turned off.	Push the HELP button on top of the base unit to complete the power-down sequence. If you do not wish to power-down the unit, press the RESET button.
Insufficient cell service	The cell signal is too weak to provide a reliable connection to the network.	Verify that the antenna is screwed tightly to the base unit. Re-position the unit in the home to obtain a better cell signal. If these steps do not correct the problem, verify that sufficient AT&T cellular 3G service coverage is available at the residence.
Monitor Mode	The unit is in a special mode that allows a trained technician to listen to the signals transmitted to the network and response center.	For provider use only. Press the RESET button to exit this Mode.

Spoken Message	Meaning	Suggested Action
No cell module	The CEL MXD cannot detect the cell phone module.	The unit needs replacement. Contact technical Support or your service provider.
Please check power connection	The base unit is unplugged from the wall or the AC power circuit is not energized.	Verify the power block is plugged into a live AC outlet that is not controlled by a light switch.
Please Service Unit	The CEL MXD has been disabled by the response center or has malfunctioned.	The unit needs replacement. Contact technical Support or your service provider.
Program Medication Dispenser	The unit is ready to be programmed to accept signals from a medication dispenser.	Press the RESET button to exit this mode. This feature will not be used.
Programming mode	The unit is in an advanced mode for programming.	For provider use only. Press the RESET button to exit this mode.
Program CO Detector	The unit is ready to be programmed to accept signals from a carbon monoxide detector.	Press the RESET button to exit this mode. This feature will not be used.
Program Personal Help Button Group	The unit is ready to learn a PHB code into a PHB group other than Group 1.	For provider use only. Press RESET to exit this mode.
Program Personal Help Buttons	The T/L button has been pressed once, followed by the base unit HELP button one time. The unit is now ready to be programmed to recognize a new Personal Help Button.	For provider use only. Press RESET to exit this mode.

**Spoken Message****Meaning****Suggested Action**

Program Smoke  
Detector

The unit is ready to learn  
the code for a smoke  
detector.

For provider use only.  
Press RESET to exit this  
mode.

Program Supervised  
Device

The unit is ready to learn  
the code for a supervised  
device.

For provider use only. Press  
RESET to exit this mode.

Range Test Mode

The T/L button has been  
pressed once, placing the  
unit in Range Test Mode.

Walk around and press  
the PHB to conduct a  
range test.

Service mode

The unit is in a special  
mode for programming.

This mode is for provider  
use only. Press RESET to  
exit this mode.

System initializing

The unit is being  
registered with the cell  
network.

Wait for the unit to  
complete the registration  
process, after which it will  
speak another message.

System ready

The system is in normal  
operation and ready to  
process alarm signals.

None required.



# Notifications

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

## **Repair information:**

If trouble is experienced with this equipment (CEL MXD Medical Alert), please contact your service provider.

**Caution:** Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

## **Interference Information:**

FCC Rules Part 15: The CEL 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 CEL 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 CEL MXD away from your radio or television
- Plug the CEL MXD into a different power outlet than your radio or television.
- Re-orient or relocate the receiving antenna.
- Consult your service provider or an experienced radio/TV technician for help.

# **Notice to End User: Wireless Telephone Reliability Considerations When Using the CEL MXD Medical Alert**

Your CEL MXD has been designed to be very reliable when sending an alarm signal to the monitoring center and then connecting the call to a live attendant. However, the CEL MXD must have sufficient cell phone reception to make and maintain a call using an AT&T 3G network.

Because wireless phones communicate using radio waves, you are hereby advised that the ability of the CEL MXD to connect to your monitoring center via the wireless telephone network is influenced by many factors, including:

- The distance between the CEL MXD unit and the AT&T 3G network cell tower with which it is communicating. Please understand that even though you may get reliable cell service using your personal cell phone from your home, there is no guarantee that the CEL MXD will do the same, as your personal cell phone may use a different network and/or lack 3G technology.
- Transmission of the cell signal may also be hindered by physical obstacles between your CEL MXD base unit and the nearest AT&T 3G-compatible base station or antenna, such as hills or large buildings; the presence of unwanted electronic signals introduced by circuit components in microwaves, computers and other electrical devices; or natural disturbances created by severe weather or even cloud coverage.
- Cell signal connection quality to and from the local AT&T 3G network can and does vary, sometimes substantially, from minute to minute. Moving the CEL MXD base unit even just a few feet can affect cell signal connection quality. It is possible that your unit will not be able to complete a call because of the lack of cell service even though a connection was made without problems when the unit was first installed and tested.

- A large number of cell phone users trying to use the local network at the same time may overload cell circuits and cause your CEL MXD to detect a “busy” signal instead of completing its call.
- During a local disaster, personnel from local, state, and federal emergency agencies may be given priority to use the cell system. If this happens, your alarm call may not go through.
- While wireless service providers attempt to design their networks to eliminate dropped calls, busy signals and dead zones, no network is perfect and coverage breaks within the general coverage areas are still possible.
- Calls will take a little longer to be connected to the Response Center than land line calls – perhaps as much as two minutes from the time you press your personal help button – due to switching and other delays.
- Your CEL MXD has an internal backup battery that will allow it to continue to operate for up to 60 hours after the loss of AC power. When the unit is powered by the battery, it may take up to 60 additional seconds to “wake up” and send a signal to the cell network, because the cell phone circuit may be turned off to save energy. If your AC power is off, please be patient while the CEL MXD unit turns on its cell phone circuit and makes the connection to the network.

The CEL MXD is a wireless device that can be used in any location in which AT&T 3G cell service is available. However, it does NOT have GPS capabilities and CANNOT determine a user’s location via signal transmission. The Response Center relies on the accuracy of the information you provide them and will direct Emergency Responders to the address they have on file. Therefore, it is imperative that you promptly notify the Response Center whenever you relocate your CEL MXD unit. Before choosing the CEL MXD for your medical alarm needs, it is extremely important that you press your button to initiate tests of the CEL MXD in the locations where you plan to use it most frequently, in order to determine that solid, repeatable cell service is present at all times.

**NOTICE: TUNSTALL IS NOT LIABLE FOR ISSUES RELATED TO CELLULAR SERVICE AVAILABILITY OR QUALITY.**



Distributed by  
Tunstall Americas  
36-36 33rd Street, Suite 103  
Long Island City, NY 11106  
1-877-266-0733

Manufactured by  
Mytrex, Inc.  
10321 South Beckstead Lane  
South Jordan, UT 84095