# CERBERUS PYROTRONICS

DMC-1

MXLV Digital Message Card

ENGINEER AND ARCHITECT SPECIFICATIONS

- MXLV Digital Custom Message Player

- Software Programmable Custom Messages for: **Evacuation, Alert, Emergency Notification, Tornado Warning, System Testing and more...**

- Live Voice Custom Message Recording Standard

- Up to 250 Unique Custom Messages per DMC-1

- No External Inputs Required to Activate Messages

- Spoken Walk Test

- Spoken Zone Coding

- Selectable Message Priorities (1-10)

- Selectable Message Repeat Counts (1 to 15 or continuous)

- Any combination of Tones and Messages possible (Slow Whoop, 900 Hz, Chime, Temporal Code 3, Wail, Horn)

- Individual Device Message Programming

- Recording input for external Microphone or Other Audio Source (ie: tape recorder)

- Mounts in OMM-1 cardcage

- (UL) Listed, ULC Listed
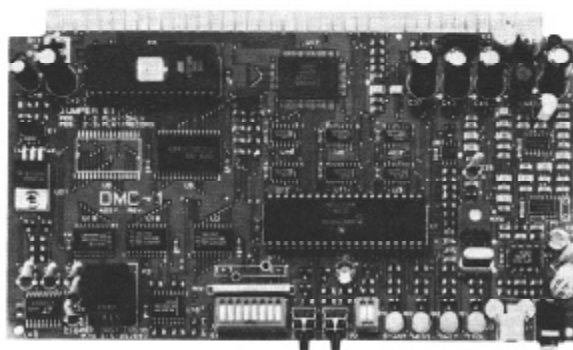
Description

The DMC-1 provides the user with the ability to program and sound custom spoken voice messages for Evacuation, Alert, Tornado Warning, System Testing and other Emergency and Non-Emergency building notification requirements.

DMC-1 is an optional MXLV module designed to meet the requirements of voice evacuation systems that call for the ability to sound pre-recorded spoken messages. The DMC-1 plugs into 1 of the 4 available expansion slots in the OMM-1 cardcage. The MXLV system can support a maximum of (2) DMC-1 modules. DMC-1 communicates with and is supervised by the MMB-1/-2. If a failure in the

DMC-1 should occur, the ACM-1 on-board tone(s) will automatically back up the DMC-1.

Each DMC-1 module can be programmed for up to 250 different custom messages. The messages are programmed using the MXLV s custom configuration software program (CSGM).

The custom messages can be created from a library of over 130 digitally recorded words, phrases and tones stored in the memory of every DMC-1 module. These words, tones and phrases can be used in any combination to create the up to 250 unique messages which can be assigned to sound by device, by floor or zone, by building or any group desired.

The DMC-1 phrase library contains six different tones that

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can be selected to meet requirements that call for combinations of spoken messages and tones. The available tones are Slow Whoop, 900 Hz, Chime, Temporal Code 3, Wail and Horn.

The DMC-1 also contains an additional 30 seconds of custom recording time which can be used to record messages or phrases not contained in the DMC-1 on board phrase library. Additional messages can be recorded using either an external microphone (DMC-REC) or by connecting another audio source to the DMC-1 external input jack. Custom messages can be recorded into the DMC-1 while the DMC-1 is installed in an MXLV system or messages can be recorded onto the DMC-1 by connecting an external 12VDC power supply and speaker (to play back the messages recorded). When custom messages are recorded onto a DMC-1 operating in an MXLV system, the system master microphones (MMM-1) local speaker can be used to play back the recorded messages to check for message content and clarity.

For example if a general evacuation message needs to sound in two different languages, the message **May I have your attention please... a fire emergency has been reported in the building, while this is being investigated, please leave the building by the nearest exit. Do not use the elevators**. could be selected directly from the DMC-1 pre-recorded phrase library using the CSGM program. Additionally the same message could be recorded in another language (Spanish for example) using the external microphone input. Now when an alarm occurs this message would sound in English and Spanish alternating between the two and repeating as many times as required or playing continuously until the system is silenced and reset.

This additional recording time can also be broken down into custom phrases that may be used in multiple messages.

Spoken Walk Test

The DMC-1 when used in the MXLV walk test mode, provides spoken voice feedback on all system speakers of the device being tested. When in the walktest mode, as devices are activated, the DMC-1 will sound over all building speakers the address of the device being tested along with the report type (Alarm, Trouble, Supervisory, Security, Status). For example ; while in walktest, if device 001-045 is smoke tested, all speakers can automatically sound **Test Alarm-zero-zero, one zero-four-five alarm tested successfully** . The spoken walktest feature can also be used for basic device communication testing with audible /voice feedback with the device address. For example if a detector is removed from its base, while the MXLV is in walk test mode, the system speakers will say trouble followed by the detector address.

The **Spoken Coding** feature of the DMC-1 is intended for use in applications that call for the zone coded audibles to indicate the floor or zone from which the alarm is being reported. A typical zone coded system would have a unique zone code assigned to a floor or area of a building . For example the zone code for the third floor of a building might be 4-3-2 . On a typical zone coded system the horns

or bells would sound 1111-111-11 indicating code 4-3-2 . For the same code the DMC-1 would **say** four-three- two over the system speakers . Additionally a word or phrase can be added to sound before and after the zone code to provide more detailed information, ie: Alarm Report four-three-two . The zone codes are programmed via the CSGM.

DMC-1 programming allows up to 10 different message priority levels to be assigned, as well as the number of rounds to repeat a particular message (1-15 or continuous). A VSM switch can optionally be programmed to manually override the DMC-1 operation with the ACM-1 on-board backup tone.

This equipment is approved for operation over the temperature range of 0° C to 49°C.

Engineer & Architects Specifications

The Emergency Voice Alarm/Communication system shall include a digital voice message player, model DMC-1 that will act as the audio source for all digitally pre-recorded voice messages. The DMC-1 shall mount in one of the expansion cardcages inside of the MXLV enclosure and communicate as an integral module. The DMC-1 shall be addressable and communicate with and be fully supervised by the MXLV system. Message players that require external devices to be used for supervision are unacceptable.

The standard digital voice message player shall be capable of providing up to 250 unique custom programmed spoken voice messages. Message players that require additional expansion equipment in order to provide additional messages shall are unacceptable. Custom message programming shall be software programmable and shall allow the creation of up to 250 unique messages as selected from a library of over 130 digitally recorded tones, words and phrases. Systems which require factory recording of custom messages are unacceptable.

Custom messages shall be able to be assigned by system, by individual device, by floor or zone, by building or any group desired. When two digital message players are used, it shall be possible to have two unique custom messages assigned to each device. Message activation shall be via an intelligent, supervised data communication path. All message activation criteria shall be software programmable in the life safety systems native configuration program. Systems that require external relay or solid state physical interfaces in order to select the appropriate message to play shall not be acceptable. Systems employing a serial data interface link shall be required to physically install the message player in the same enclosure as the fire alarm system. Systems requiring a separate enclosure to mount the message player are not acceptable.
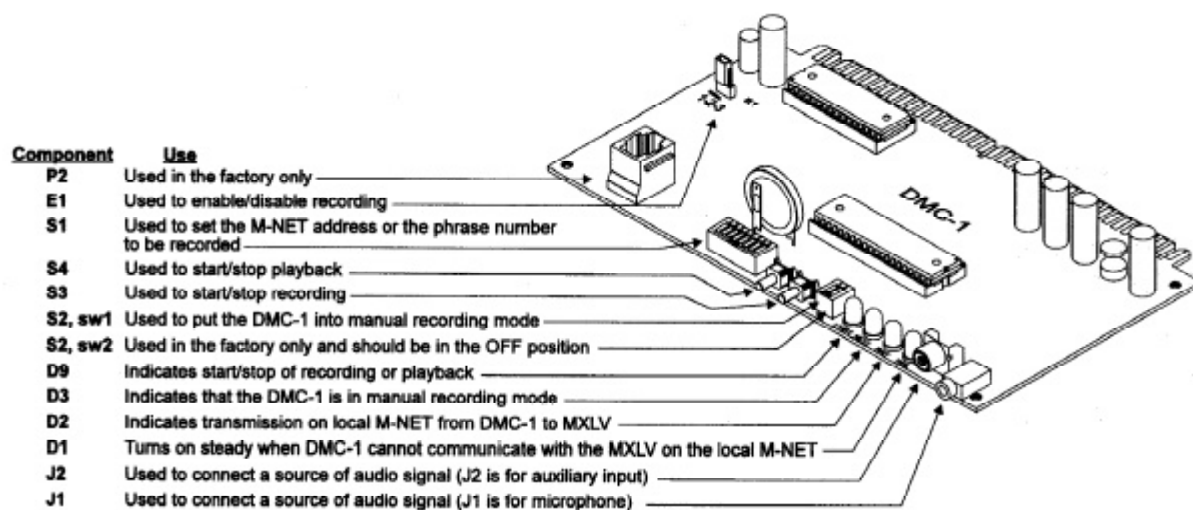
The system message player shall have ten levels of priority that can be assigned for messages, the highest level priority being 1 , the lowest 10. Lower priority number messages will be automatically overridden if a higher priority message is required to be played.

The message player shall be capable of sounding initiating device addresses and the type of event in a spoken voice over the system speakers when the MXLV system is walk

test mode.

For systems that require zone coding, the digital message player shall be capable of sounding a spoken numeric code over the system speakers indicating the zone or area in alarm.The system message player shall be automatically backed up by a tone in the event that a failure of the message player occurs. It shall also be possible to manually override the message player and revert to a backup tone when required.

Component	Use
P2	Used in the factory only
E1	Used to enable/disable recording
S1	Used to set the M-NET address or the phrase number to be recorded
S4	Used to start/stop playback
S3	Used to start/stop recording
S2, sw1	Used to put the DMC-1 into manual recording mode
S2, sw2	Used in the factory only and should be in the OFF position
D9	Indicates start/stop of recording or playback
D3	Indicates that the DMC-1 is in manual recording mode
D2	Indicates transmission on local M-NET from DMC-1 to MXLV
D1	Turns on steady when DMC-1 cannot communicate with the MXLV on the local M-NET
J2	Used to connect a source of audio signal (J2 is for auxiliary input)
J1	Used to connect a source of audio signal (J1 is for microphone)

DMC-1 Module

Electrical Specifications & Module Parameters:

Mounting: DMC-1 mounts in one of the 4 available slots in the OMM-1 cardcage

Operating Temperature: 0° C to 49° C

Power Supply: +5VDC (supplied from MXLV via internal cable harnesses)

Maximum Current Draw: 50mA @5VDC

Maximum   of Messages per DMC-1:   250

Custom Message Recording Time: 30 Seconds (this is in addition to the pre-recorded messages and phrases contained in the DMC-1 software)

Wiring: The only wiring required is internal in the MXLV enclosure from the OMM-1 cardcage in which the DMC-1 is mounted to the TBM-2 module - no external wiring required. (This wire shall be TSP 14 AWG - 18 AWG)

Frequency Range: -3dB @ 100Hz - 4KHz

Message Activation method: Via internal MXLV system logic (no external inputs required)

Supervision: Internally supervised by the MXLV via communication with the MXLV main processor MMB-1 or MMB-2

Auxiliary Power Supply Input for manual recording on bench only: 12VDC (use any UL listed 12VDC regulated power supply)

Nominal audio input signal level at microphone input jack (J1): 10mVRMS (25mVRMS max.)

Nominal audio input signal level at auxiliary input jack (J2): 500mVRMS (1.5 VRMS max.)

Ordering Information

Model No.	Description	Part No.
DMC-1	Digital Message Card	500-893000
DMC-REC	Recording Microphone Kit	500-095928