MXD
Rev: 3

1 DESCRIPTION

The MXD by Mytrex, Inc. is the most advanced Land-Line Personal Emergency Response System (PERS) on the market today and is manufactured in the USA! The MXD is specifically designed to be used with **any** telephone line from which a standard ordinary telephone can make a telephone call; including POTS, VoIP and Verizon Home Phone Connect to name a few. The MXD provides numerous voice prompts in any language to assist with system install, regular testing, maintenance, customer reminders and providing guaranteed account information to participating monitoring centers when standard industry communications fail during an emergency. The RA3TX, standard with every MXD, is the smallest Personal Help Button (PHB) available and has a range up to and beyond 600 feet as used in a customer's home; not just in a test environment. The MXD's speaker is crisp and clear in both duplex and simplex. The microphone is so sensitive that soft-spoken customer voices can be heard by monitoring center personnel from virtually anywhere in the home and often outside or in the garage. The MXD is also popular in protecting against domestic violence by preventing the speaker from turning on in covert mode, thus preventing a dispatcher's voice from inadvertently being heard through the system if desired. The MXD is compatible with wall mount Help Buttons, popular Fall Detection devices and is capable of pairing with up to two Medication Dispensers; his and hers. The MXD not only supports industry standard wireless help button supervision protocols but offers the exclusive Mytrex enhanced mode of supervision that eliminates all fallacies of standard supervision protocols. One of the most important features of the MXD is its promise that if a standard telephone call may be made from a customer's home, the MXD will reliably transmit emergency information to the monitoring center. The battery life is unsurpassed providing over 80 hours of operation in the event of a power outage. AC Fail, Low Battery, Dead Battery and AC Restore reports help maintain system integrity and assure reliable connection. Two jacks on the rear of the unit provide for simpl installation and can be used with or without an RJ31X jack. If the installer inadvertently reverses the connections on the rear of the unit, the unit will still place a call for help if another extension is not off hook. The MXD even provides a report to the monitoring center informing of improper connections.

2 UNIT FEATURES

1. Specifically designed for VoIP and POTS compatibility
2. Personal Help Button

    a. Long PHB range (over 600 feet)
    b. PHB battery monitored
    c. One-Touch PHB
    d. Soft-Touch PHB option
    e. Break-Away lanyard
    f. Wristband option
    g. Waterproof (UL Tested)
3. Unequaled Two-Way Voice Capability
    a. Microphone sensitivity
    b. Speech clarity
4. Provisioned for Two-way Voice Pendant (2WVP)
5. 16 PHBs, Wall Mount Help Buttons or Fall Detectors with HELP button
6. Two Medication Dispensers
7. Provisioned for:
    a. Eight Smoke Detector zones
    b. Eight Carbon Monoxide zones
    c. Eight Supervised wall mount PHB zones
8. Base Unit Battery
    a. Up to 80 hours of battery operation
    b. Battery over-charge, under-charge and over discharge protection and reporting
    c. Live capacity battery monitoring
    d. Low, dead and bad battery reporting
9. Up to 123 programmable primary reporting telephone numbers (one for each individual alarm if desired)
10. Up to 123 programmable secondary reporting telephone numbers (one for each individual alarm if desired)
11. One telephone number for voice signaling if primary and secondary telephone numbers fail
12. Large base unit HELP button
13. Small base unit footprint
14. Non-intrusive LED status indicator
15. Wall mountable
16. Field upgradeable firmware
17. Demo mode
18. Direct to Responder mode
19. Can override blocked caller ID during calls to monitoring center
20. Can prepend dial access codes at beginning of dialing
21. Can disable Call Waiting during calls to monitoring center
22. Programmable parameters (remotely or directly at the unit)
    a. Using DTMF telephone
    b. Using GUI
23. RJ31X and Line Grabber compatible
24. Four alarm queuing modes
25. Programmable dialing delay after alarm activation
26. Smart DTMF Dial
27. Programmable Line Seize period

28. Programmable pause delay during dial
29. Enhanced two-way voice management
    a. Programmable DTMF voice commands
    b. One or two-digit voice disconnect commands
    c. Programmable microphone cutout intervals
    d. Programmable voice disconnect warning
    e. Voice command acknowledgements
    f. Learn (pair) new PHB in voice mode
    g. PHB battery status interrogation during voice mode
    h. Queued alarm reporting during voice mode
    i. Programmable automatic report back delay
    j. Range test mode
    k. Set automatic voice test time
30. Programmable line signaling levels
31. Regulatory
    a. FCC part 15 (B) & (D) and Part 68 registered
    b. NRTL Tested against (Intertek Testing Laboratory, ETL):
        i. UL1635 Digital Alarm Communicators listed
        ii. UL1637 Homecare Signaling Device listed
        iii. Industry Canada CSA C22:.2#205:2012 listed

3 DEALER FEATURES

1. Private label
2. Ease of installation
    a. Range Test Mode
    b. Monitor Mode
    c. Easy PHB programming
    d. Reversed telephone connection
        i. Reports reversed telephone connection
        ii. Allows alarm signals even with reversed telephone connections
3. Remote and local programming with voice prompts using a DTMF telephone
4. Remote and local programming with easy to use GUI interface
5. Repairable by dealer (saves shipping costs)
6. Easy to 'LEARN' a new PHB through telephone support or voice mode
7. Low cost of ownership/maintenance
8. Demo Mode
9. Battery bench test mode
10. Custom packaging available
11. Programmable automatic voice testing (1 to 255 days)
12. Programmable automatic dial testing (1 to 255 days)

4 User Features

1. Multiple language voice messages/prompts
2. Domestic violence
3. VoIP compatible
4. Small footprint and aesthetically pleasing
5. Clear audio
6. Ultra-sensitive microphone

5 Monitoring Features

1. Popular signaling formats with programmable timing
2. Proprietary signaling capable
3. Voice signaling capable
4. Up to 12-digit account code reporting
5. Unit serial number may be substituted for account code reporting
6. One, two or three-digit alarm code reporting
7. Zero or one-digit checksum
8. Four programmable alarm queuing modes
9. Programmable two-way voice commands
10. AC power status indicated with every DTMF two-way voice command
11. Easy to 'LEARN' a new PHB while in two-way voice mode
12. Easy to enter personalization mode while in two-way voice mode
13. Queued alarms easily reported in two-way voice mode
14. Talk/Listen toggle in two-way voice mode for increased microphone sensitivity
15. Selectable microphone gain by dispatcher

6 Reporting Formats

1. Contact ID
2. Account + Alarm + Checksum
    a. DTMF, Pulse (10, 20 or 40 PPS), 1200 Baud FSK, RADTS,
        i. Formats – Account Code + Alarm Code + Checksum
            1. 3 to 12-digit Account Code or Unit Serial Number
            2. 1 to 3-digit Alarm Code
            3. 0 or 2-digit Checksum
3. Mytrex MXD Format
4. VRI Digi100
5. Voice Signaling
    a. Account Code or Serial Number + Alarm Code

7 ALARM CODES

1. Personal Help Buttons (PHBs), Wall Help Buttons or Fall Detection Banks
    a. Four banks of PHBs or fall detectors
    b. Four PHBs or fall detectors per bank
    c. Help/Panic
    d. Help/Panic with low battery
    e. Fall
    f. Fall with low battery
    g. Device low battery
2. Two Medication Dispensers
    a. Non-compliance
    b. Jammed
    c. Low battery
    d. Supervision (if desired)
3. Eight Supervised Smoke Detector Zones
    a. Smoke
    b. Low battery
    c. Supervisory Fail
4. Eight Supervised Carbon Monoxide Detector Zones
    a. CO
    b. Low battery
    c. Supervisory fail
5. Eight Supervised Help/Panic Button zones
    a. Help/Panic
    b. Low battery
    c. Supervisory fail
6. Base Unit Reports
    a. Base Unit HELP
    b. AC fail and restore reporting with programmable delays
    c. Low battery warning
    d. Dead battery notification
    e. Bad battery notification
    f. Auto dial test
    g. Auto voice test
    h. Reversed telephone connection
    i. Bad charging voltage
    j. Bad charging voltage restoral
    k. External flash error
    l. Automatic report back
    m. Account activation notification
    n. Parameter changed notification

8 TECHNICAL SPECIFICATIONS

Primary Power	9VDC, 500mA
Backup Battery	6V, 1.2 AH Sealed Lead-Acid Battery
Normal Operating Current	15 mA
Alarm Operating Current	110 mA
Speech Operating Current	450 mA
Maximum Battery Backup Duration	80+ hours
Estimated Dead Battery Capacity	20+ hours
Battery Life Expectancy	5+ years
Receiver Type	Superheterodyne
Modulation	OOK, Manchester – Mytrex Proprietary
RF Sensitivity	-115 dBm
Typical Range	Over 600 Feet
Waterproof Pendant	Yes – to 3 feet (designed to IP67 standard)
Frequency	418 MHz
PHB Battery Life	3 to 5 years (depending upon usage)
Communicator Formats	ADEMCO Contact ID, Mytrex MXD, all DTMF/PULSE ACCOUNT CODE + ALARM CODE + CHECKSUM formats, VRI Digi-100 and Fail-to-Voice Signaling
Dialing	Smart DTMF, DTMF, Pulse
Dialing Delay	0 – 255 seconds
Account Number Length	3 to 12 digits
Alarm Code Length	1 to 3 digits
Checksum Length	0 or 2 digits
Primary Telephone Numbers	Up to 123 (one per alarm code if desired)
Secondary telephone Numbers	Up to 123 (one per alarm code if desired)
Third Telephone Number	1 (may be used for Auto voice tests, auto dial tests, account activation notification, parameter change notification, direct voice mode signaling)
Auto Voice test	0 to 255 days
Auto Dial Test (Unit status report)	0 to 255 days
Operating temperature	0 to 49 C (32 to 120 F)
Alarm Processing	Alternately dials primary and secondary number up to a programmable number of tries or until monitoring center receives signal. If fail to contact monitoring center, may dial third telephone number if programmed. Process repeats a programmable time later.
Audio	Domestic Violence (Listen Only), duplex, two-way toggle, non-voice
Alarm Queuing	4 modes – a. None b. One signal per call but unit queues additional alarms and redials after disconnecting. c. Reports all pending alarms and queue subsequent alarms. If there are subsequent alarms, it alerts the dispatcher and reports them electronically or verbally if commanded. If there are any unreported alarm after disconnecting, unit redials and reports. d. Reports all pending alarms and queues subsequent alarms for redial after disconnecting.