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MACKENZIE LABORATORIES, INC.
1163 Nicole Court
Glendora, CA 91740 USA

DVSD-3000 MTS/LR

USB Memory Key / SD Card Storecaster & Music Thru System with Local Record

OTHER MACKENZIE PRODUCT LINES

Digital Message Repeaters - Mackenzie's line of Digital Message repeaters are the ideal audio announcement solutions for Public Address, Amusement, Entertainment, Museum and Exhibit applications. Self-contained solid state systems offer unparalleled reliability. A variety of channel, connection, bandwidth and memory configurations are available.

Controls and Peripherals - Many applications require additional equipment to optimize the performance of Mackenzie products. This area focuses on items developed or sourced for their compatibility, ease of use and value. Included are: input/output controllers, speakers, amplifiers, motion sensors and pushbuttons among others.

Transit - Mackenzie is making a difference in transit applications with innovative solutions for ADA compliance and Passenger Information Systems. These products address a variety of audio and text messaging requirements and support both in-vehicle and wayside installations.

Overhead Page Management - Mackenzie's OPM series of Digital Page Stacker/Repeater and Feedback Eliminators offer advanced features for the most difficult paging and intercom applications. A unique design makes feedback virtually impossible by recording then repeating pages which opens the loop between the input microphone and speakers. Various models are available to support simple repetition, multiple page stacking and multiple input channels.



User's Manual
Version 1.1 Revised 19, January 2016
Doc 99-20-190

1. OVERVIEW

The DVSD-3000 MTS/LR is a versatile Message-On-Hold and Storecasting System. The DVSD-3000 MTS/LR combines high quality audio playback for use in even the most demanding applications.

1.1 Features and Benefits:

The DVSD-3000 MTS/LR is a highly reliable audio playback system specifically designed for Message-On-Hold applications. The system provides music and marketing messages while clients are waiting on-hold or in your retail location. This heightens awareness and minimizes frustration, thus increasing sales.

The DVSD-3000 MTS/LR supports up to 20 individual audio messages. Messages are loaded into the system via a user pluggable SD Card or USB memory key. The unit supports WAV, and MP3 encoded audio files. The files on these memory media are not susceptible to loss during power outage.

Multiple audio outputs (600ohm, 8ohm) with level control, tone adjustment, and high quality sampling allow the sound of the DVSD-3000 MTS/LR to be optimized for almost any phone or public address system, insuring that the message gets heard.

1.2 General Specifications:

Power:

12VDC @ 1 Amp

Audio Fidelity

15kHz, dependant on MP3 bit-rate
80dB Signal to Noise ratio

Handset Input:

RJ22 for local record handset(LR-HSET, supplied separately)

BGM Input:

RCA, mono, 10K ohm

Audio Outputs:

Line: RCA, mono, +3db into 600 ohm
Speaker: RCA, mono, 2.5W into 8ohm

Manual Controls:

BGM level, BGM fade amount, Tone control, Output volume
Append mode, Speaker enable, Local Record, Music Interval, Play Mode

Switches:

Message enable/disable, Play mode, Music Interval min/sec

Package:

Painted steel chassis

2. INSTALLATION:

This section provides complete instructions for mounting the DVSD-3000 MTS/LR. Before you install the DVSD-3000 MTS/LR system, make sure you have:

- A message or music on hold input on your phone system or line level input to your public address system.
- A non-switchable 120VAC electrical outlet near the location where the unit is to be installed.

7. WARRANTY, SERVICE & RETURNS

The industrial grade housing and quality construction of the Mackenzie DVSD-3000 MTS/LR virtually eliminates the need for service or maintenance. There are no user-serviceable components within the Mackenzie DVSD-3000 MTS/LR. Refer all servicing to the factory.

7.1 Warranty Coverage:

The Mackenzie DVSD-3000 MTS/LR is tested and checked before shipment and are guaranteed against defective material or workmanship for a period of three (3) year from the date of purchase. Should trouble ever develop, contact the Factory directly by telephone or in writing. If it is determined that the equipment requires Factory service, return it to the Factory. If our inspection shows that the trouble was caused by defective material or workmanship, we will repair or replace the equipment without charge and return prepaid. Repairs made necessary by abuse, improper use, unauthorized service or maintenance, and/or improper installation, as well as out of warranty repairs, will be charged at our regular repair prices in effect at the time. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period.

This warranty is in lieu of and excludes all other warranties, expressed or implied, and in no event shall MACKENZIE be responsible for damage to other equipment or property, for any anticipated profits, consequential damages, loss of item, or other operation or use of this product, and MACKENZIE'S maximum liability shall not ever be greater than the price paid for the equipment. This warranty gives you specific legal right. Your rights may vary from state to state. Inquiries regarding use, repair and service should be made to:

MACKENZIE LABORATORIES, INC.
1163 Nicole Court, Glendora, CA 91740 USA
Telephone: (909) 394-9007
FAX No: (909) 394-9411
Email: info@macklabs.com
WWW: www.macklabs.com

7.2 What we ask you to do:

To get warranty service for your DVSD-3000 MTS/LR system, you must provide proof of the date of original purchase. In the event you need to ship your DVSD-3000 MTS/LR system to the factory for service, call us for a return authorization number. When you ship your DVSD-3000 MTS/LR system, you must prepay all shipping cost. We suggest that you retain your original packing material in the event that you need to ship your DVSD-3000 MTS/LR system. When sending your DVSD-3000 MTS/LR system to the factory, include your name, address, phone number, proof of date of purchase, and a description of the operating problem. After repairing or replacing your DVSD-3000 MTS/LR system, we will ship it to your return address at no cost to you within the USA. Repair or replacement of your DVSD-3000 MTS/LR system at our factory is your exclusive remedy.

7.3 What this warranty does not cover:

This warranty does not cover defects resulting from accidents, damage while in transit to factory, alterations, unauthorized repairs, failure to follow instructions, misuse, fire, flood, and acts of God.

6. MEMORY CARD FORMATTING

The Memory on the DVSD-3000 MTS/LR system must be formatted as FAT, or FAT16. Other formatting types may not be recognized properly by the system.

The DVSD-3000 MTS/LR can use audio files that are formatted as either *.WAV (44.1 kHz, 16 bit) or *.MP3 (44.1 kHz, 32-320 kbps, VBR).

- All Audio files should be in the root folder of the memory card / key
- Messages may be recorded as mono, or stereo, but unit will only play the left side audio.
- The user can choose to have a single, long message or multiple shorter messages on the unit.
- The length of each individual message does not have to be the same.
- The audio should be set to a nominal level of -4dBm.
- The dynamic range of the production should be held low so as to allow the production to be recorded at the highest possible level without exceeding 0dBm.
- If multiple messages are used, the files will be played in alphanumeric order by the DVSD-3000 MTS/LR. It would be beneficial to name the files in a way that the user can easily determine what they are, and the order they play. Some examples are shown below:
 - 1.mp3 or 1.wav or 1_brownies.mp3 will play first.
 - 2.mp3 or 2.wav or 2_apples.mp3 will play second.
 - 3.mp3 or 3.wav or 3_top sirloin.mp3 will play third.
 - 4.mp3 or 4.wav or 4_salmon.mp3 will play fourth.
- If more than 20 messages are detected by the system, the messages following the 20th in the ordering sequence will not be played.
- If somehow, the card has two files with the same name, but different prefix, the MP3 file will play before the WAV file.

The DVSD-3000 MTS/LR ships with a 1GB SD Card memory standard. This memory will provide approximately 69 hours of MP3 audio playback at 32kbps (Voice Quality), or 17 hours of MP3 audio playback at 128kbps (High Quality).

The DVSD-3000 MTS/LR recognizes standard SD Card media. High Capacity SD Cards, commonly termed SD-HC may not be recognized by the system. Should the user need to replace the SD Card memory, make sure to use standard SD Cards only.

2.1 Wall or Table Installation:

1. Locate a proper space on the telephone equipment board or wall. You can mount the DVSD-3000 MTS/LR unit in one of three positions: flat, side, or horizontal.
2. Position the unit on the board; mark the mounting hole locations.
3. Using the mounting screws provided, secure the DVSD-3000 MTS/LR system to the board or wall.
4. If table top mounting the DVSD-3000 MTS/LR, stick the enclosed rubber feet on the bottom of the unit.

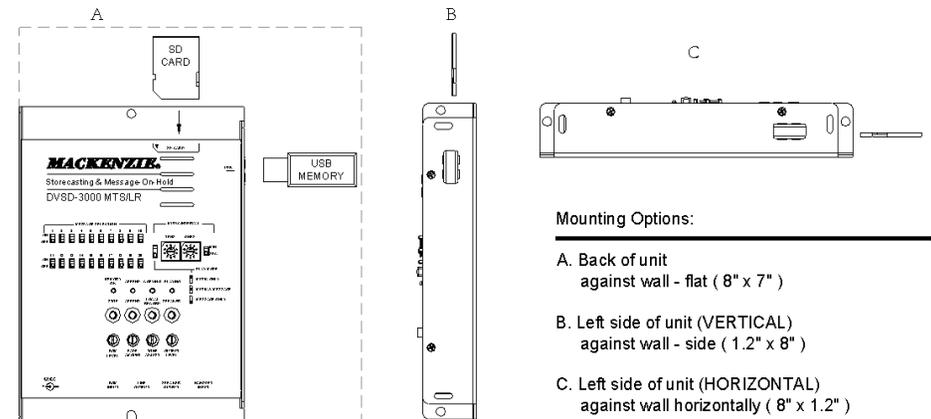


Figure 1 - Mounting

2.2 Connecting the power pack

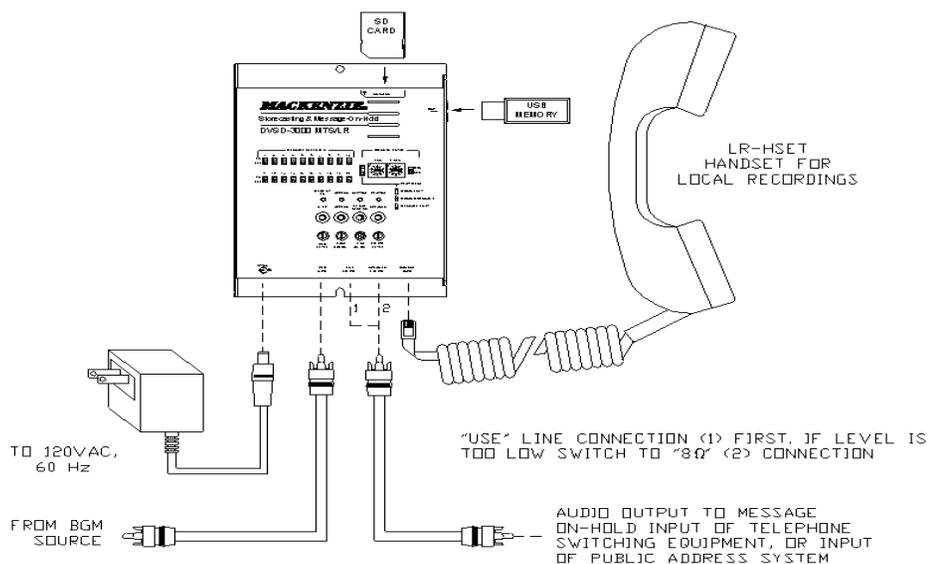
1. Plug the power pack into a 120VAC power outlet which is not connected to a switch.
2. Plug the power plug into the DVSD-3000 MTS/LR system's power jack marked 12VDC.
3. There is no power switch on the DVSD-3000 MTS/LR system, so as soon as power is connected, the system will be active.

2.3 Connection to the Telephone equipment

Connect one side of the supplied RCA – RCA cable to the telephone system's line level input. Connect the other side of this cable to the DVSD-3000 MTS/LR's LINE OUT. There are two Audio outputs on the DVSD-3000 MTS/LR, LINE OUT, and SPEAKER OUT. Use the LINE OUT first adjusting the audio output volume potentiometer to obtain the correct audio level. If this does not provide enough audio level, then switch to the SPEAKER OUT.

2.4 Connection to the PA equipment

Connect one side of the supplied RCA – RCA cable to the PA amplifier's line level input. Connect the other side of this cable to the DVSD-3000 MTS/LR's LINE OUT. There are two Audio outputs on the DVSD-3000 MTS/LR, LINE OUT (Low, +3dB into 600 ohms), and SPEAKER OUT (High, 2.5W into 8 ohms). Use the LINE OUT first adjusting the audio output volume potentiometer to obtain the correct audio level. If this does not provide enough audio level, then switch to the SPKR OUT.



3. OPERATION:

3.1 Message loading – USB Memory Key, or SD Card:

When you receive the new DVSD-3000 MTS/LR Message on Hold system, it may not contain any messages in its SD Card memory. New messages can be loaded directly onto the SD Card using a memory card writer, or a properly formatted USB memory key can be inserted into the DVSD-3000 MTS/LR unit. Make sure to insert the memory with the label facing toward the top of the machine.

The DVSD-3000 MTS/LR supports playback of MP3 or WAV files. Reference Section 6, "Memory Key/Card Formatting" for additional information.

Whenever a USB Key is inserted, the DVSD-3000 MTS/LR will automatically copy the audio files onto the SD Card. If there is no SD Card, the system will play from the USB key directly. While the files are being transferred to the SD Card, the red Transfer LED will light. At the end of the transfer, the system will begin playing enabled messages. *****Do not remove the USB key while the Transfer LED is lit, as it could corrupt the memory*****

4. POWER FAILURE RECOVERY

The memory medium used by the DVSD-3000 MTS/LR is not dependent upon power or battery backup to retain its memory. This eliminates problems associated with brown outs or unexpected power losses. When power is returned, the system will immediately start the operation it was in prior to power being removed.

5. TROUBLESHOOTING GUIDE

Before contacting the factory, please review the following answers to some common problems.

No LEDs are active on the DVSD-3000 MTS/LR.

- Verify that the AC-DC power adapter is plugged into non-switched AC power outlet.
- Verify that the power connector is plugged completely into the jack on the DVSD-3000 MTS/LR.

Can't insert the memory key / card into the system

- Make sure the memory is aligned properly prior to inserting it into the unit.
- Make sure there are no foreign objects in the memory slot prior to installing the memory.

The Audio LED doesn't light after a memory is inserted.

- Verify that the memory is inserted properly.
- Remove the memory key and verify that the root folder of the drive contains at least one audio file with an MP3 or WAV extension.

Can't transfer files from USB Key to SD Card

- Verify that there is an SD Card installed in the system.
- Remove the memory key and verify that the root folder of the drive contains at least one audio file with an MP3 or WAV extension.

System won't play from USB Key

- Remove the memory key and verify that the root folder of the drive contains at least one audio file with an MP3 or WAV extension.
- Copy the files to a different memory key, and determine if second key works

Can't hear anything from the audio output

- If the Audio LED is off, there is no audio being output by the system.
- Verify that the RCA to RCA connector is securely attached to the DVSD-3000 MTS/LR and the phone system.
- Turn the output level adjustment clockwise to increase the Audio output level.
- Use the 8 ohm output instead of the line level output.

Can't hear anything through the monitor speaker

- If the Audio LED is off, there are no recorded messages on the system.
- Press the Speaker button so that it locks in the depressed position.
- If the audio output is adjusted low, the level from the monitor speaker will also be low.

3.7 Slide Switch descriptions

Several slide switches are provided on the top cover of the DVSD-3000 MTS/LR. These switches control the functions described below:

Message Selection Switches

The DVSD-3000 MTS/LR system can play up to 20 messages. Each message has a message selection switch associated with it. These switches allow the user to enable or disable messages to be played, or recorded. The system will recognize changes of the message selection switches during normal operation.

When a message selection is in the "ON" position, the message is enabled. When the DVSD-3000 MTS/LR is in play mode, it looks at the switch for all recorded messages. If the message is enabled, the system will play the message. When a message selection switch is in the "OFF" position, the message is disabled. If the switch is disabled, the system will skip the message.

3.8 Connections

12VDC, 2.5mm Barrel connector

The system is powered by a 12VDC @ 1 Amp power adapter. Use only the AC-DC power adapter supplied by the manufacturer to guarantee proper operation.

LINE OUTPUT, RCA connector

A 600 ohm, audio output. When installing the DVSD-3000 MTS/LR system, connect this output to the phone system, or PA system, first.

SPEAKER OUT, RCA connector

An amplified, 2.5 watt into 8 ohm, audio output. Use this Audio output if the on-hold circuit, or PA system, requires a higher level than the line output can drive.

BGM INPUT, RCA connector

A 10K ohm audio input. When installing the DVSD-3000 MTS/LR system, connect this input to the output of the background music source.

HANDSET INPUT, RJ22 connector

Local record input for connecting an optional handset (LR-HSET).

USB, "A" Type connector

Used to plug a standard USB Key into the DVSD-3000 MTS/LR for playing or transferring audio files from.

SD Card connector

Used for the SD Card memory. The SD Card can be removed and audio files placed directly on it, then placed back in the unit.

The DVSD-3000 MTS/LR offers two USB Key Message Download Modes, shown below:

3.1.1 Message Download Mode 1 - Replace All (Replace/Append LED: OFF)

When this mode is used, the system will erase all the messages in memory as soon as the USB Key is inserted. The system will begin placing the transferred messages from the USB Key into memory starting from message #1 and continuing through the last message on the USB Key. Use this mode any time all of the messages on the DVSD-3000 MTS/LR system need to be updated.

Important: Once a USB Key is inserted into the DVSD-3000 MTS/LR system in this mode, all messages in memory will be deleted immediately.

3.1.2. Message Download Mode 2: Replace and Append (Replace/Append LED: ON)

This mode allows the user to add or replace any number of messages on the system. Activate this mode by pressing the Append button until the Append LED lights. Turn ON the message selection switches of the messages to be overwritten. Make sure to turn OFF the message selection switches of the messages you want saved. Insert the USB Key with the new messages on it and the system will transfer the first message on the USB Key into the first active message position, signified by its message selection switch being ON. The second message will replace the second active message, and so on.

Important: Once a USB Key is inserted into the DVSD-3000 MTS/LR system in this mode, all of the enabled messages in memory will be deleted immediately.

If there are more messages on the USB Key than there are messages set up to be overwritten, the DVSD-3000 MTS/LR will append the extra messages until there are twenty messages recorded on the system, or until the last message on the USB Key is reached.

Example: The DVSD-3000 MTS/LR system has ten messages currently recorded on the system. To replace message 3 and 7 with new messages and add three more messages to the system follow the steps below:

1. Activate the Append mode.
2. Enable message selection switches 3 and 7.
3. Disable all other message selection switches.
4. Insert the USB Key which has the five new messages on it.
5. The system will transfer the first message on the USB Key into message 3.
6. The system will transfer the second message on the Key into message 7.
7. The system will then transfer the last three messages of the USB Key into locations 11, 12, and 13 on the DVSD-3000 MTS/LR, respectively.

It is not necessary to enable a message location to Append messages to memory. If the user wants to simply append messages to the system, activate the Replace/Append mode and disable all of the message selection switches. Insert the USB Key with the new messages and it will transfer the messages from the USB Key into any empty message locations on the unit.

3.2 Message Downloading - Local Record Handset:

You may also create messages for the DVSD-3000 MTS/LR by recording them directly to the unit using the optional LR-HSET handset. This feature allows you to make a custom recording to any of the 20 message locations on the unit. These messages may be updated at any time for maximum flexibility.

1. Plug the LR-HSET(sold separately) into the Local Record Input.
2. Press the Local Record pushbutton to initiate the record sequence, Copying LED (RED) will blink.
3. Toggle the desired message location switch two (2) times to begin recording.*
4. The Copying LED should now be illuminated, record your message into the handset.
5. Press the Stop button to stop recording.
6. A preview of the message will automatically be played after the recording has been stopped.

*NOTE: Local recordings may be made to message locations that are either enabled or disabled. If disabled, toggle the switch up then down to begin recording. If the message location is enabled, toggle the switch down then up to begin recording. Always leave the switch up, or enabled, if you want it to playback.

3.3 Automatic message playback

After messages have been placed in memory, the DVSD-3000 MTS/LR will automatically begin playing them through the audio outputs. There is no control, or user input, required to initiate the playback. The green, Playing LED will light whenever the system is playing messages.

All enabled messages will be played back sequentially, as described in Section 6, with a user programmed delay time inserted between them (see section 3.7 for delay configuration information). If an enable switch is active, but has no associated message recorded into that position, the position will be skipped.

When the DVSD-3000 MTS/LR is in record mode with Append/Replace mode active, the system will overwrite any messages whose message selection switch is enabled, while protecting the messages whose message selection switch is disabled. All message selection switches are ignored when the system is recording and the Append/Replace mode is not active.

Play Mode

The DVSD-3000 MTS/LR system has three play modes, Music Only, Message Only, and Music and Message. A three position slide switch sets the mode of the system.

Music Only – No pre-recorded messages are played when the system is in this mode. The system will simply route the BGM audio directly to the output.

Message Only – Pre-recorded messages will be played sequentially based on the Music Interval setting. The BGM audio will be muted, however. No audio will be present on the audio output connector between pre-recorded message plays.

Music and Message (Default) – This mode allows Pre-recorded messages to be played sequentially based on the Music Interval setting. When a message is playing, the BGM audio will be mixed in with the pre-recorded audio. Between pre-recorded message plays, the BGM Audio will be routed directly to the audio output.

3.6 Audio adjustments

There are four potentiometers on the DVSD-3000 MTS/LR system allowing the user to tailor the BGM level, the audio output level and frequency response of the unit. Refer to the Quikey for location of each control.

Output Level

This controls the level of both audio outputs on the DVSD-3000 MTS/LR. When turned clockwise, the system will increase the audio output level through both the Speaker Output and the Line Output. When turned counter-clockwise the system will decrease the audio level through these outputs.

Note: This potentiometer does not affect the level of the monitor speaker.

Tone Adjustment

Adjusts the tone of the output audio through both the Speaker Output and the Line Output. When turned clockwise, the system will lower the bass, while adding treble to the audio output. When turned counter-clockwise the system will lower the treble, and add bass to the audio output. When in the center position, no Treble, or Bass is added to the system.

Use this adjustment to tailor the audio response for the telephone system or PA system.

Note: This potentiometer does not affect the level of the monitor speaker.

BGM Level

This sets the overall level of the background music being fed into the DVSD-3000 MTS/LR. Turning this potentiometer counter clockwise will lower the BGM level. Turning this potentiometer clockwise will raise the BGM level.

Typically, if the BGM audio seems distorted, the BGM input level is too high, and this potentiometer should be adjusted counter-clockwise to resolve the problem.

(BGM) Fade Amount

This potentiometer allows the user to set the amount of fade to be applied to the BGM audio when a pre-recorded message is played by the system. Adjusting this potentiometer clockwise increases the fade amount, meaning the BGM level is lowered more when a pre-recorded message is played. Adjusting this potentiometer counter clockwise decreases the fade amount, meaning that the BGM level is not lowered as much when a pre-recorded message is played.

When this potentiometer is adjusted fully counter-clockwise, there will be no fade to the BGM when a message is played.

When this potentiometer is adjusted fully clockwise, the system will fade the BGM by approximately 30dB when a message is played.

3.5 LED (Light Emitting Diodes) descriptions

Memory OK LED, Green

Upon power up, this LED lights solid if either an SD Card or a USB memory key is detected by the system, and that memory has at least one valid audio message on it.

If there is a memory card detected with no audio, or invalid audio messages on it, this LED will blink quickly 2 times every half second.

If no memory is detected by the system at power up, this LED will blink two times per second continuously until a memory card is detected.

Copying LED, Red

This LED will light whenever files are being transferred from the USB Memory key to the SD Card.

Should an error occur during the transfer of the files from the USB memory to the SD Card, this LED will blink continuously two times per second until power is cycled, or until the USB Key is removed and reinserted, allowing the transfer to be restarted.

Playing LED, Green

Whenever the unit is in play mode, this LED will light solid. Play mode is when the system is playing a message as well as the delay time between message plays.

Append, Red

This LED indicates the message download mode. When this LED is OFF, the system is in Replace All mode. When this LED is ON, the system is in Replace and Append mode. This setting is not saved when power is removed, and reapplied to the unit. Operation of the unit in Replace/Append mode is described in the Message Download (Section 3.1.2).

Music Interval

Two Rotary switches and a slide switch make up the Music Interval setting. The two rotary switches allow for a setting from 00 to 99. The left rotary switch represents the “tens” position, while the right rotary switch represents the “ones” position.

The slide switch to the right of the rotary switches sets whether the 00 to 99 setting is in minutes or seconds.

For example: If the Left rotary switch is set to 2, and the Right rotary switch is set for 5, and the slide switch is set for SEC, the DVSD-3000 MTS/LR is set to delay 25 seconds between message plays.

These switches are read by the system during operation, so changing the setting can be performed while the unit is playing messages.

3.4 Pushbutton descriptions

Stop pushbutton – Black, momentary

Allows the user to stop the recording process

-When the DVSD-3000 MTS/LR is recording audio from the handset, (the Copying LED will be on) pressing this button momentarily will stop the recording and save the Audio which was just recorded.

-If this button is pressed and held for two seconds while the DVSD-3000 MTS/LR is recording, the message just recorded will be deleted.

Append pushbutton – Black, momentary

Pressing this button toggles the Replace/Append mode. The status of the Append and Replace mode is signified by the Append LED. When this LED is on, the system is in Replace/Append mode. This setting is not saved through a power outage.

Operation of the unit in Replace/Append mode is described in the Message Download section (3.1).

Local Record pushbutton – Red, momentary

Pressing this initiates local recording. See section 3.2 for details on the Local Record operation.

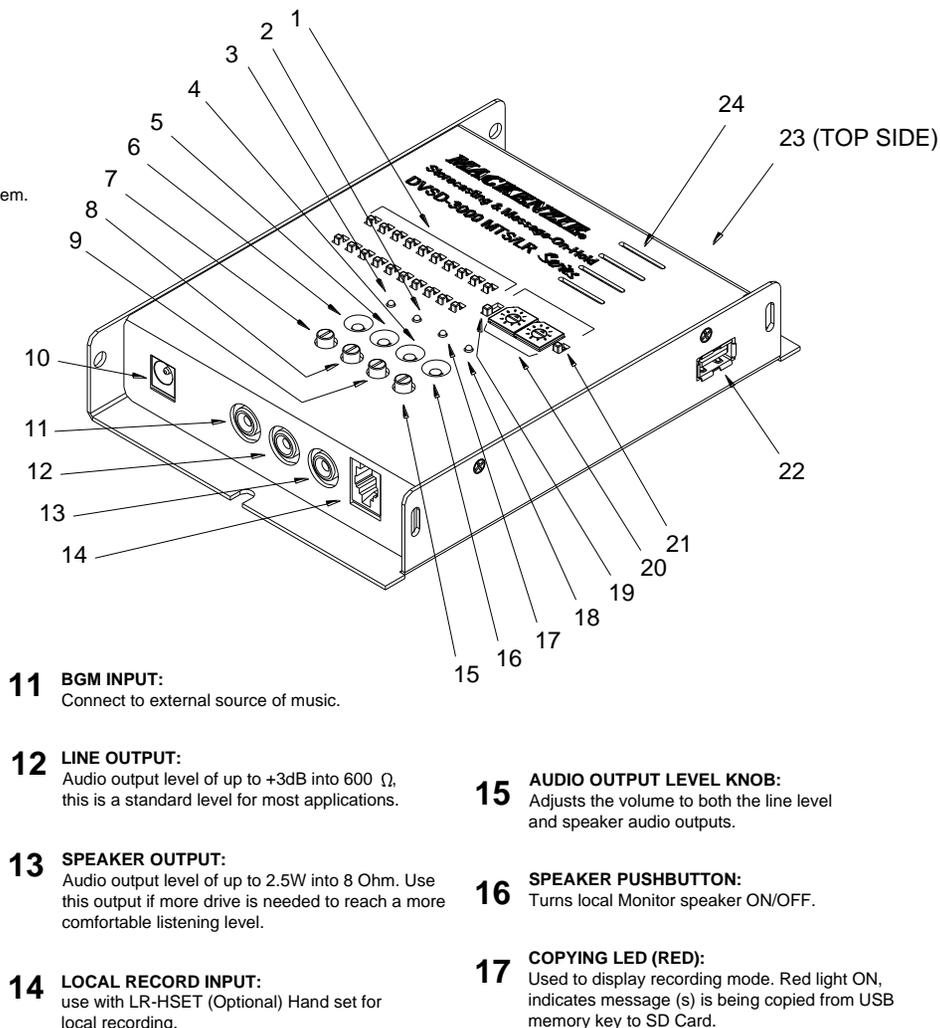
Speaker pushbutton – Black, momentary

A monitor speaker, on the front side of the unit, allows the local user to hear the Audio being output by the DVSD-3000 MTS/LR. Pressing this button momentarily toggle the setting of the monitor speaker.

The volume of the monitor speaker is preset, and is not adjustable in the field.

Note: Do not adjust the Audio output level adjustment in order to hear the monitor speaker level better. Doing this will adjust the level of the Audio output which may not be acceptable.

**Model DVSD-3000 MTS/LR
STORECASTER & MESSAGE-ON-HOLD
SYSTEM WITH LOCAL RECORD**



- 1 MESSAGE SELECTION 1-20:**
Enable and disable messages to be played or recorded. Off (down) On (up).
- 2 APPEND MODE LED (YELLOW):**
Indicates if system is in Standard mode (OFF) or Replace & Append mode (ON).
- 3 MEMORY OK LED (GREEN):**
LED is ON if either an SD Card or a USB memory key with valid audio messages is detected by the system. Blinks if no files are detected.
- 4 LOCAL RECORD PUSHBUTTON:**
Press this button to initiate local record function.
- 5 APPEND PUSHBUTTON:**
Toggles the Append mode as displayed on the associated LED.
- 6 RECORD STOP PUSHBUTTON:**
Stop playing downloaded messages. If pressed during the recording process the recording will be stopped.
- 7 BGM LEVELS KNOB:**
Adjusts level of external music source.
- 8 FADE AMOUNT KNOB:**
Adjusts amount the BGM input is ducked when a message is played.
- 9 TONE ADJUST KNOB:**
Adjusts the Bass & Treble amount to deliver the best overall system performance.
- 10 POWER JACK:**
Insert supplied power adapter.

- 11 BGM INPUT:**
Connect to external source of music.
- 12 LINE OUTPUT:**
Audio output level of up to +3dB into 600 Ω, this is a standard level for most applications.
- 13 SPEAKER OUTPUT:**
Audio output level of up to 2.5W into 8 Ohm. Use this output if more drive is needed to reach a more comfortable listening level.
- 14 LOCAL RECORD INPUT:**
use with LR-HSET (Optional) Hand set for local recording.

- 15 AUDIO OUTPUT LEVEL KNOB:**
Adjusts the volume to both the line level and speaker audio outputs.
- 16 SPEAKER PUSHBUTTON:**
Turns local Monitor speaker ON/OFF.
- 17 COPYING LED (RED):**
Used to display recording mode. Red light ON, indicates message (s) is being copied from USB memory key to SD Card.

- 18 PLAYING LED (GREEN):**
This green LED is ON when the system is playing Pre-Recorded messages.
- 19 PLAY MODE SWITCH:**
UP = music only. (Only BGM heard)
MID = music & message. (Normal operation)
DOWN = message only. (BGM muted)
- 20 MUSIC INTERVAL-Tens and Ones Rotary Switches:**
Set music interval between message plays. Set the rotary switches to the desired time between 00 and 99.
- 21 MUSIC INTERVAL-Minute/Second Switch:**
Programs rotary switch setting for minutes or seconds.
- 22 USB MEMORY KEY CONNECTOR:**
Audio files can be played directly from a USB memory key, or the files on it can be copied to an SD card, if one is present.
- 23 SD CARD CONNECTOR:**
Audio files be played directly from an SD card
- 24 MONITOR SPEAKER:**
Allows user to preview message play back.

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**THE MACKENZIE DYNAVOX
DVSD-3000 MTS/LR Quikey**

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