

# USER MANUAL

Published October 2016

Software Version Maxx 2.36



ZAXCOM.COM

## Zaxcom Zax-Maxx

Mixer – Recorder - Transmitter

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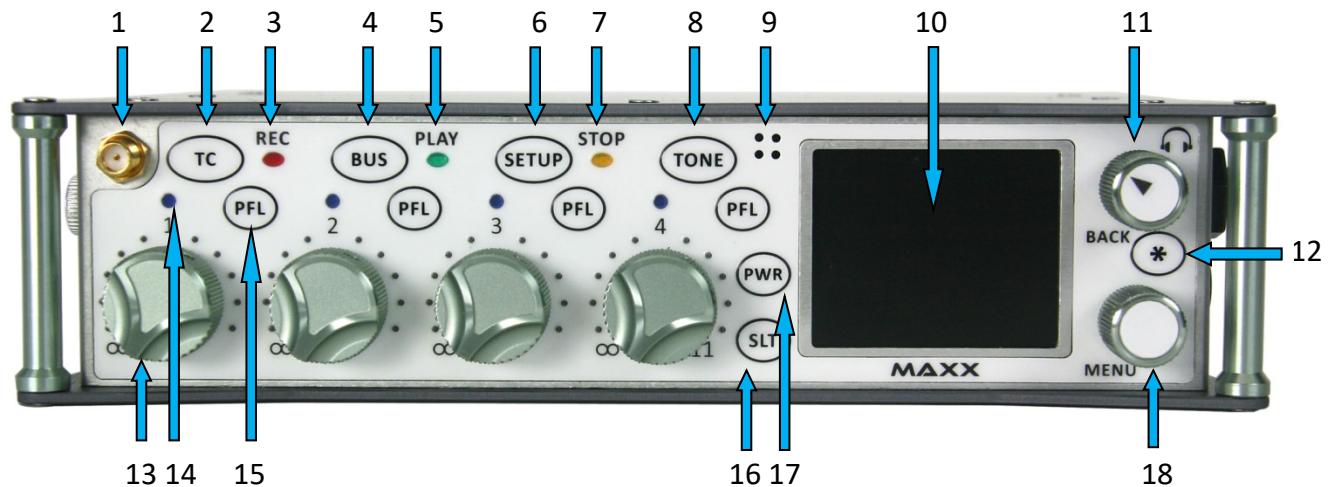
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## MAXX

## Front Panel



1. **Wireless Camera Link Antenna** - SMA connector

2. **TC / REC Key**

- In shifted mode  
A quick press opens the time code slate - additional presses will open the time code menus.  
Pressed and hold for one second, puts Maxx into record.
- In un-shifted mode  
A quick press will puts Maxx into record.
- When in setup menu press it to access the analog input 1 setup menu.

3. **Red Record LED**

When illuminated indicates Maxx is in record mode.

In the warning setup menu Maxx can be set up that while recording to just the primary folder the LED will flash red, and when Maxx is mirroring the LED will go to solid red. This is to warn the user that Maxx is not continuously mirroring.

4. **BUS /PLAY key**

- In shifted mode  
A quick press accesses the bus menu - additional presses accesses additional bus routing menus.  
When in the ENG meter menu, a single short press accesses the quick pan matrix.  
Pressed and held for one second, puts Maxx into playback mode.
- In un-shifted mode  
A quick press will put Maxx into playback.
- When in setup menu press it to access the analog input 2 setup menu.

5. **Green Play LED**

When illuminated indicates Maxx is in playback mode.

6. **SETUP / STOP Key**

- In shifted mode  
A quick press will open up the setup menu.  
Pressed and held for one second, will stop recording or stop playback.
- In un-shifted mode  
A quick press will stop recording or playback.

7. **Yellow Stop LED**

When illuminated indicates Maxx is in stop mode.

8. **TONE Key**
  - Press to toggle tone on and off.
  - When in setup menu press it to access the analog input 4 setup menu.
9. **Internal Slate Microphone**
10. **Color LCD Screen**

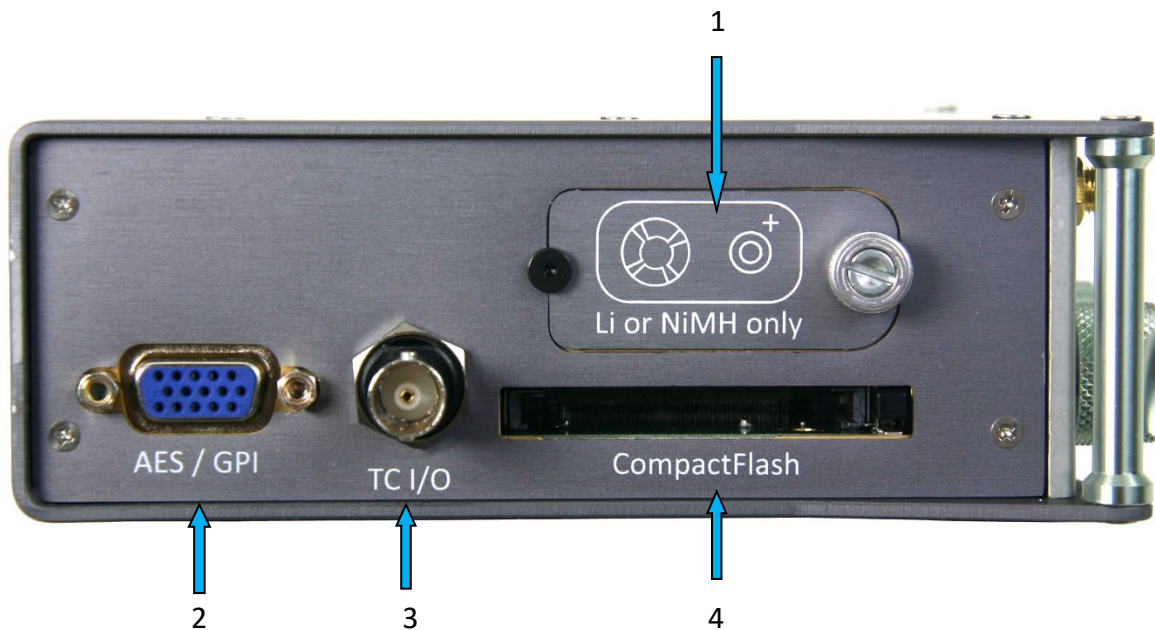
Daylight-readable color LCD screen.
11. **HEADPHONE Knob / BACK Knob**
  - Press knob to back out of a menu to the previous menu.
  - Turn knob to adjust headphone volume.
12. **Star Key**
  - From the any home page, it advances to the next home page.
  - In the bus routing matrix and card mix matrix press to add phase reverse to the cross point options.
  - In the fader assign matrix press to add trim to the cross point options.
  - Press and hold while powering up to update the software.
13. **Fader 1 (4 total)**

Each of four faders can be assigned to any channel or combination of channels, or act as a hardware trim knob.
14. **Auto-Trim™ LED (4 total)**

Indicates which fader is active for AutoTrim™.
15. **Pre Fader Listen key (4 total)**
  - Press to listen to Pre-Fader audio from the corresponding fader.
  - When in setup mode press to access the AES input setup menu for the corresponding AES inputs.
  - Pressing from the Metadata menu or track naming menu to open the list of presets.
16. **Slate Key**
  - Press and hold key to activate the slate microphone.
17. **Power Key**
  - A quick press will power up Maxx.
  - Press and hold for 3 seconds to power down (release the key when the countdown reaches 1)
  - When Auto-Pan is ON the power key will change the panning for the active channel.
18. **MENU Knob / SHIFT Key**
  - From the home page press it to access the main menu page.

Please note that from the AES virtual fader meter screen or from the ENG meter screen, when the virtual faders are engaged, it is necessary to push and hold the menu knob to access the main menu.
  - Turn it to scroll through the items in a menu.
  - Press to select a menu item.
  - SHORTCUT: While scrolling through a parameter with a long list, pressing the menu knob while turning will speed up the scroll speed by 10 times.

## Left Side

**1. Battery Door**

The Silver knob rotates clockwise to lock the battery compartment door which the battery carrier that holds six AA batteries into. Please note that it is possible to insert the battery carrier incorrectly, but even if inserted incorrectly Maxx has reversed current protection so no harm will happen to the unit, it just won't turn on.

**WARNING:** Use only NiMH rechargeable or Lithium batteries. If any other battery chemistry is used, the battery can EXPLODE and can SEVERLY damage or DESTROY the unit.

**2. AES Input Output connector / GPI (DE-15F)**

Maxx has 2 AES input pairs with a sample-rate conversion, allowing each input to have a different sampling-rate. Maxx will accept any unlocked AES signal with a sampling-rate of 44.1 to 96 kHz. The dynamic range of the sample-rate conversion is 124 dB, offering completely transparent conversion of digital audio from one sample-rate to another. Maxx also features 3 AES output pairs are also on the same DE-15 connector.

**3. Time Code Input / Output Connector (BNC) - the function of this connector is set in the time code setup menu.****4. Compact Flash Card Mirror Media Slot**

The compact flash card is inserted with the top of the card (label side) facing down.

**WARNING:** When inserting a card it should slide in easily. If there is any resistance required the card is not aligned correctly and can bend the pins.

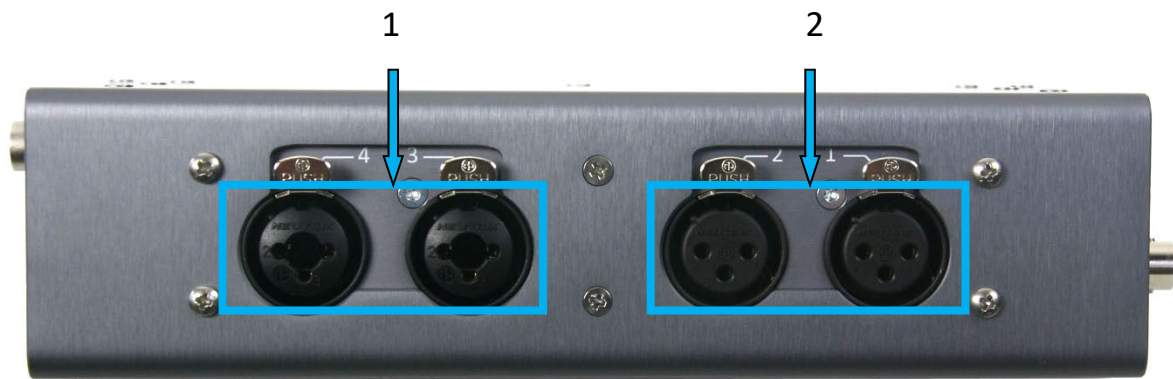


## Right Side



1. **Headphone (1/4" stereo jack)**
2. **External Power Connector (Hirose- HR10A-7P-4P)**  
10 to 18 VDC {1/2 A @ 12 VDC}
3. **Tape / Mono Out (TA-5M)**  
This connector outputs both the tape out and mono out busses. The tape and mono out are both balanced mono sources. The audio that is fed to these busses are controlled from the mono / tape bus matrix.
4. **Output Bus 1/2 (TA-5M)**  
This is an isolated feed of the audio sent to the both XLR bus outputs. The levels on each bus is independently adjustable.
5. **Return / Line Level Inputs for analog in 5 and 6 (TA-5M)**
  - This is where a camera returns are connected. The return is wired to accept two channels of audio so it can receive one stereo return from one camera or two mono returns from two cameras.
  - This input can be used as line level analog input 5 and 6.
6. **Output Bus 1/2 (XLR)**  
XLR output for busses 1 and 2. The levels on each XLR are independently adjustable.

## Rear



1. Mic/Line-level Inputs 3 and 4 (Combo XLR-3F 1/4" Stereo )
2. Mic/Line-level Inputs 1 and 2 (XLR-3F)

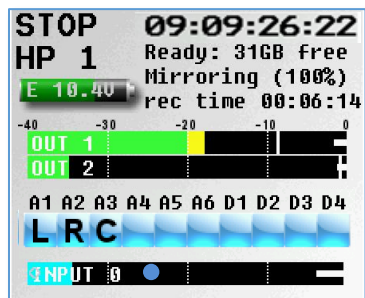
## Home Screen / Meters

There are several selectable home meter screens from which to choose. These screens can be toggled through by pressing the Star key.

The color of the left half of the meter indicates the source type being metered:

- Light blue is an input
- Green is an output bus
- Purple is a recorded track

The track name, bus number or input number is indicated within each meter to aid in channel identification. If a compressor is engaged, a white gain reduction line will appear at the right side of the meter when the compression is being applied.

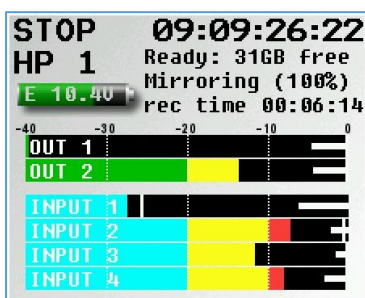


ENG Home Screen

← Output busses 1 and 2

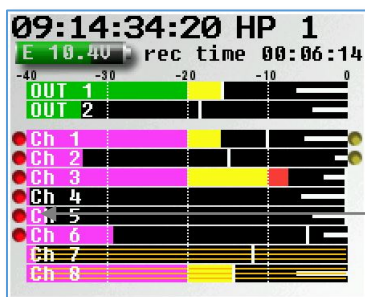
← Quick Pan Matrix

← AutoTrim Meter / Virtual Faders for mixing Inputs



4 Input Home Screen

← Input signal from XLR Inputs

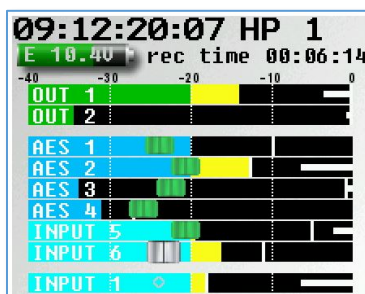


Card Track Home Screen

← Yellow ISO Attenuation Enabled Indicators

← Red Record Enabled Indicators - shows which tracks will be recorded

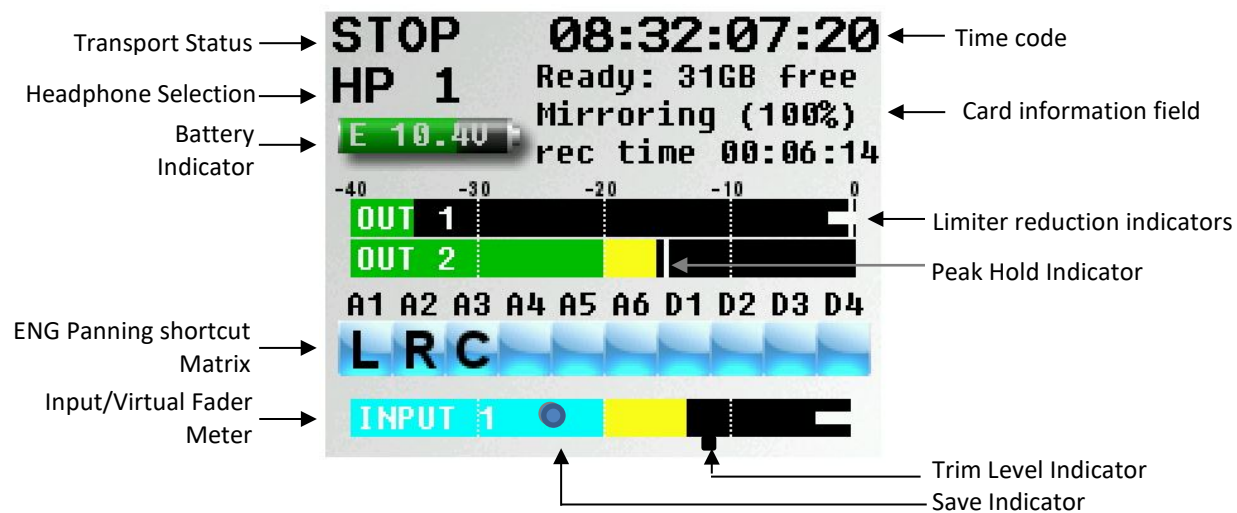
← Yellow Strike Through – Represents that these tracks will not be recorded



Virtual Fader Home Screen

← AES and Line level inputs 5 and 6 with virtual fader control

## Home Screen Explained



## Transport Status

Shows the mode of recorder **RECORD**, **PLAY** or **STOP**.

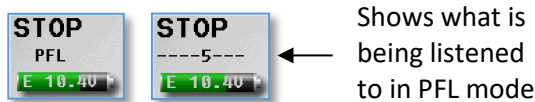
## Time Code

Shows the current time code.

## Headphone Selection

Displays which headphone matrix is being monitored. The headphone matrix can be custom named - see headphone naming in the ENG menu.

If the PFL key is pressed, the name in the Headphone Monitor field is replaced with "PFL" alternating with the selected channel number(s) as follows:



- Press the PFL key corresponding to input to select a channel to PFL. To listen to multiple channels at the same time, press and hold an additional PFL key for approximately 1 second to add that channel.
- Press the headphone knob to restore normal headphone monitoring.

## Battery Indicator

Displays the power source (I - Internal / E - External), a numeric display of the current voltage. Maxx will always automatically switch to the higher voltage source first.

## Save Indicator

A moving pixel on bottom of screen moving right to left indicates that the Maxx is saving a parameter setting to its memory. If Maxx is powered down while the pixel is moving the settings will not be saved.

## Card Information Field

Top Line - Space available on the card

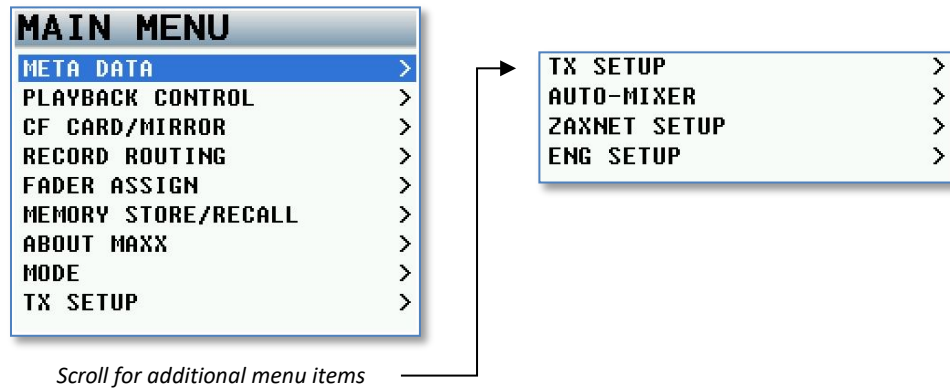
Second Line - Mirror file progress displays the mirroring percentage.

Third Line - this line will alternate between:

- When Maxx is not recording:
  - Mirror status
  - Time left on the card.
- When Maxx is recording:
  - Segment number being mirrored.
  - Segment number - with elapsed time of the take.
  - Current scene and take.

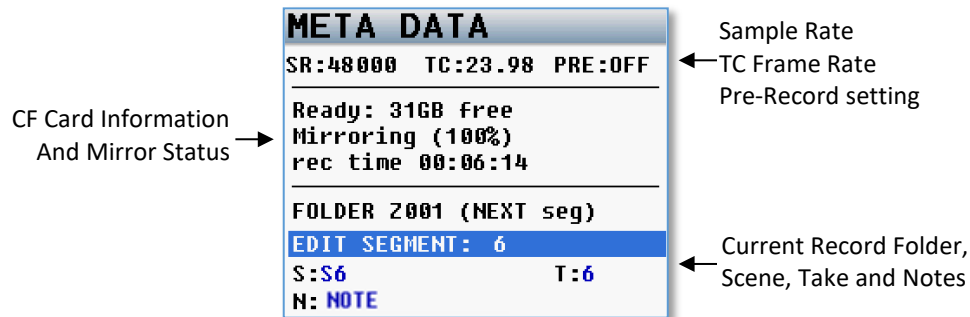
## Main Menu

To access the main menu press the MENU knob. If in the ENG home screen or virtual fader home screen, and the virtual fader mode turned on, the MENU knob will have to be pressed and held for 1.5 seconds to enter the main menu. By pressing the menu knob on any menu item will advance to the sub menus for that item.



## Metadata Page

This page displays and is where the metadata is entered.



To adjust the metadata use the MENU Knob to select one of the data fields then press the MENU knob to highlight the field. Metadata can be edited and changed before Maxx starts recording a file or even while Maxx is recording. And metadata changes made before a record take is stopped will be reflected in that take. If in continuous mirror mode and changes are made after stop is pressed the file will need to be re-mirrored for the changes in the metadata to be reflected in the mirror file.

### Preset Note List

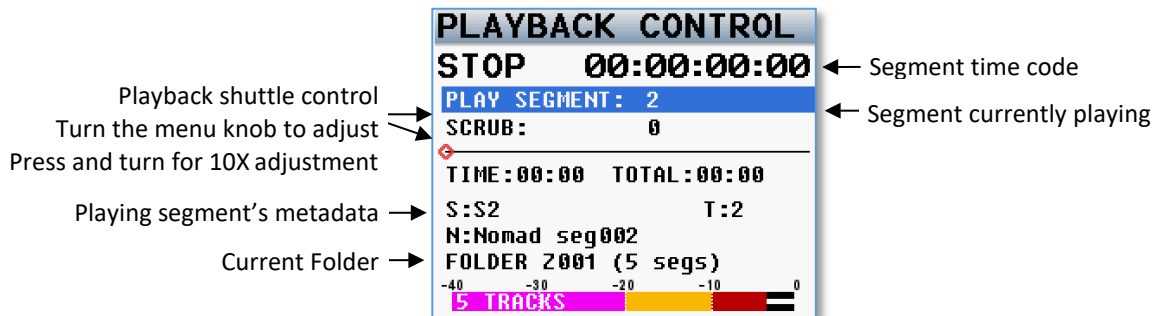
Maxx also features a preset list of notes that can be create in the ENG menu and recalled when entering metadata notes.

To select and enter from the preset list of notes

1. Highlight the note field.
2. Press one of the PFL keys to open the preset note list.
3. Select one of the preset notes to be enter.
4. Press the menu knob to enter the note.

## Playback Control Menu

This menu is where the playback of recorded files is controlled from.



Please note when in this menu, the STOP key and PLAY key function immediately, even if the transport keys are set to shifted mode.

## Record Card and Mirror Menu

The card/mirror menu sets the parameters of the primary recording and mirroring functions of Maxx. Please note that Maxx will automatically create a new file when the file size reaches 2GB. This will be a seamless transition with no loss of audio. A letter will be added to the take number each time Maxx creates a new file. So for example if the first take is over 2GB the take numbers would be Take1 and Take 1a.



### Mirror Mode Options

- **OFF** - Maxx will not mirror any files.
- **ON** - Maxx will only start to mirror a file once the unit has gone into stop mode.
- **CONTINUOUS** - When Maxx is recording, the audio is copied to the mirror folder immediately after it is written to the primary folder. Depending on the track count, the mirror card may lag behind a bit. Please note if mirroring is lagging too far behind many times there are un-needed resources that are on taking the processing power. These items will divert processing power from the mirroring and can often be shut off to conserve the processing power and speed up mirroring. Check to see that some of these items are not unnecessarily on: bus assignments cross points, compressor enables (input, output and card), high pass filters, notch filters, and delays.

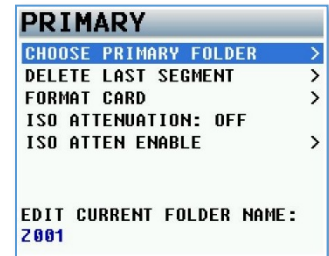
### Write Sound Report

When write sound report is selected, Maxx will create a sound report of the recorded files within the current folder and write the report to the mirror sector of the CF card. The sound report contains the metadata information for the recorded files. Please note to write a sound report mirror mode must be set to OFF.



## Primary Record Menu

The primary compact flash menu sets the parameters of the primary record folder.



## Choose Primary Folder

All files are recorded into individual folders. The primary folder menu is where the folder that will be recorded into is chosen. To select a folder scroll the MENU knob to highlight a folder then press the MENU knob to select the folder. At that point the green check will indicate the new folder that will be recorded to.

Please note that mirror mode needs to be set to OFF before the primary folder can be changed. The audio on the primary card is recorded as a Zaxcom MARF file, the advantage of MARF is that if there is a power loss or any other issue while recording there will not be any loss of recorded audio, as is common with other portable

recording systems. In the event of a power loss while recording: at power-up, Maxx will automatically close any open files to the point the audio recording was interrupted with no loss of audio up to that point. Even though Maxx uses a proprietary file system, it is 100% compatible with Mac or PC by using the free file conversion utility ZaxConvert. The latest version can be downloaded from [www.zaxcom.com](http://www.zaxcom.com). All MARF files can be converted to either a BWAV or MP3 files.

PRIMARY FOLDER		
FOLDER	SIZE	SEGS
Z001	221 GB	5 ✓
Z002	17 GB	3
Z003	0 MB	0
Z004	0 MB	0
Z005	0 MB	0
Z006	0 MB	0
Z007	0 MB	0
Z008	0 MB	0

## Delete Last Primary Segment

Delete last segment will delete the last recorded segment.

To delete the segment press the star key.

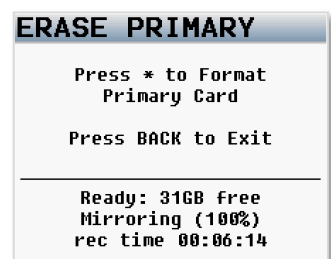


## Format Card

This is where the compact flash card is formatted from. This process will take about 4 minutes to complete. Please note that formatting a card will erase the contents of the card.

When formatting the compact flash card Maxx will partition the card as 50% MARF (primary) and 50% FAT32 (mirror). If desired a card can be formatted as 100% MARF but please note that if Maxx is formatted as 100% MARF then the primary MARF files will not be able to be mirrored as WAV files. If WAV files are needed the MARF files will need to be processed using ZaxConvert.

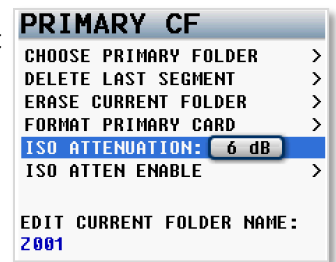
To format the cards as 100% MARF press the COM key instead of the STAR key from this menu.



## ISO Attenuation

The NeverClip™ inputs allow large signals to travel through the digital mixing engine using 32 bit floating point numbers. Once these large signals are recorded into a 24-bit WAV (or MARF) file, the advantage of floating point math is lost and these signals can clip if not using a card limiter.

ISO Attenuation allows the ISO record tracks to be attenuated by a user selectable amount of 6, 12, 18 or 24 dB. This allows audio to be recorded unclipped even if its dynamic range would normally be too large. This gain reduction is stored in the metadata of the WAV file so post production can restore the amplitude of the ISO tracks when necessary.



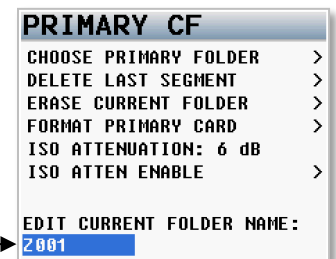
## ISO Attenuation Enable

The ISO attenuation matrix is where the card track that will have the ISO attenuation added is selected.



## Edit Folder Name

Each record folder can be named to identify its contents. A folder name can be up to 18 characters.



Current folder name →

### Editing a Folder Name

1. Scroll down to highlight the current folder name.
2. Press the MENU knob to access the enter text menu.
3. Name the folder keeping in mind that the folder name needs to 18 characters or less, and cannot contain spaces or symbols.

## Mirror Enables

The mirror enable matrix sets which of the primary tracks are mirrored. To enable a track to simply select a cross point for the appropriate track number. As a short cut it is not necessary to remove any cross points from the mirror matrix because if a primary card track is set to off in the record routing menu nothing will be recorded on the primary card and therefore nothing will be written to the mirror card. This way all of the mirror tracks can be enabled at all times making it unnecessary to change the tracks being mirrored every time the record routing is changed



## Mirror Record Menu

The mirror menu controls the copying of the audio files from primary folder to the mirror folder. The mirror folder is formatted as FAT32, is fully compatible with all Mac & PC platforms and is generally used as a deliverable format to post since the mirrored files will be recorded as BWAV files.

MIRROR	
MIRROR MODE	OFF
FOLDER TO MIRROR	>
START SEG	1
END SEG	999
FILE TYPE	BWAV MONO
FILE RESOLUTION	24 BITS
FILE NAME STYLE	Z001001
MIRROR OPTIONS	>

## Mirror Mode Options

- **OFF** - Maxx will not mirror any files.
- **ON** - Maxx will only start to mirror a file once the unit has gone into stop mode.
- **CONTINUOUS** - When Maxx is recording, the audio is copied to the mirror folder immediately after it is written to the primary folder. Depending on the track count, the mirror card may lag behind a bit. Please note if mirroring is lagging too far behind many times there are un-needed resources that are on taking the processing power. These items will divert processing power from the mirroring and can often be shut off to conserve the processing power and speed up mirroring. Check to see that some of these items are not unnecessarily on: bus assignments cross points, compressor enables (input, output and card), high pass filters, notch filters, and delays.

## Folder to Mirror

The folder to mirror menu specifies which folder the audio will be mirrored (copied) to. For continuous mirror, this folder needs to match the primary folder. To select a folder scroll the MENU knob until the desired folder is highlighted, then press the MENU knob to select the folder. At that point the green check will indicate the folder that will be recorded to.

## Start Segment

The start segment number will be the first segment that Maxx will mirror or re-mirror. When recording the start segment will automatically increase with each file on the primary card.

## End Segment

The end segment number will be the last segment that Maxx will mirror or re-mirror.

## File Type

The file type sets the file format type Maxx will mirror the audio as.

- **BWAV MONO** - file is 1 file per track. So if only 1 track is recorded, 1 file will represent that "take" from the time record is pressed to the time stop is pressed. If 2 tracks were to be recorded 2 tracks, Nomad will produce 2 files, one representing track 1 and the other representing track 2.
- **BWAV POLY** - file creates one file for that take; even if the take was recorded has multiple tracks. So with a POLY file if a take is only 1 track, the file would be 1 track. If the take was 2 tracks, it would still be one file with both tracks. This is often referred to as being "2 tracks wide". Similarly, if 6 tracks were recorded it would still be only one file, 6 tracks wide.

## File Resolution Select

The file resolution sets the bit depth that Maxx will mirror the files at. Maxx can record files as 16 bit or 24 bit.

## File Naming Protocol

File naming sets the way the individual files are named.

- **Z001001** - Creates a file name in the format of - **Folder Name** and **Segment Number**.

This is the default file naming protocol where the file name consists of the Folder Name (Z001 or whatever name was created) followed by the Segment Number (for example 045) so the file name would be Z001045.WAV (folder name / file number) that would be followed by Z001046WAV.

- **1 T2 Z001** - Creates a file name in the format of - **Scene, Take, Folder Name** and **Segment Number**.

For example scene "1", Take "2" in folder "Z001" and the segment number is "45", the file name will be "1\_T2\_Z001045.WAV". Warning - when using this naming option do not create a scene or take with any characters other than letters or numbers.

- **1 T2** - Creates a file name in the format of - **Scene** and **Take** separated by and underscore.

For example scene "1", Take "2" in folder "Z001" and the segment number is "45", the file name will be "1\_T2.WAV". Warning when using this naming option avoid creating duplicate file names within a folder, if duplicate file names are created the files will not mirror properly.

- **1T2** - Creates a file name in the format of - **Scene** and **Take** with no separation.

For example scene "1", Take "2" in folder "Z001" and the segment number is "45", the file name will be "1T2.WAV". Warning when using this naming option avoid creating duplicate file names within a folder, if duplicate file names are created the files will not mirror properly.

Please note that all segment numbers will always be a three digit number. The first file in a folder will always be 001.

## Mirror Options

Remember mirror options after power cycle allows Maxx to stay in the last mirror mode setting before being powered off. If this option is set to OFF, any time Maxx is powered down the mirror mode will default to OFF and will need to be turned back on. Please note that even if Maxx is setup to allow mirroring mode to be remembered after a power cycle if a CF card is not installed in the mirror slot after the unit boots-up - mirror mode will be turned off and must be manually turned on after a mirror card is inserted.

## Record Routing

The record routing menu controls what is routed to and recorded to each track. To route audio to a record track scroll the MENU knob to select the track, then press the MENU knob to highlight the track. Then scroll the MENU knob to cycle through the 6 analog inputs (pre and post fade), the 4 AES inputs (pre and post fade) and the 2 output busses. Pressing the MENU knob again will set that track. Any item can be routed to any card track.

RECORD ROUTING	
CARD1	In 1 PreFader
CARD2	In 2 PostFader
CARD3	AES 1 PreFader
CARD4	AES 2 PostFader
CARD5	Out 1
CARD6	Out 2
CARD7	(OFF)
CARD8	(OFF)

## Fader Assign Matrix

The fader assign matrix sets which inputs are assigned to each of the four hardware faders. Because Maxx is a digital mixer, no actual audio is going through the fader control which allows for complete flexibility for the hardware faders assignments. Any one of the analog inputs 1-6, digital inputs 1-4, or analog trim controls can be assigned to any of the 4 hardware faders.



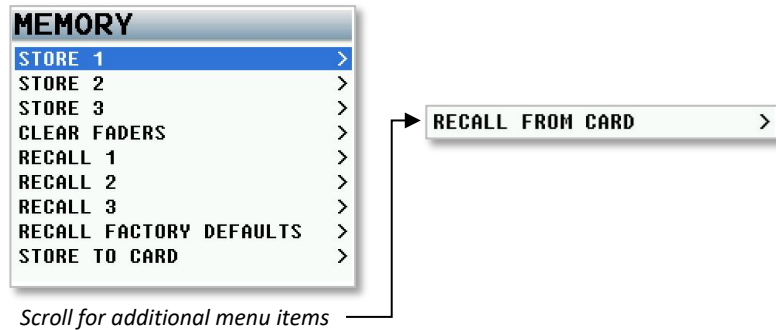
### Setting a Cross point

The numbers on top row represents the input number and the fader number is listed on the right. In the matrix rotate the menu knob to scroll through the matrix. At the intersection of the input and fader press the menu knob to cycle through the available cross points, which are:

- Blank - no connection.
- **A** - Assigns an analog input to that fader.
- **D** - Assigns a digital input to that fader.
- **T** - Assigns the fader to work as a hardware trim knob. Please note to access the trim mode press the STAR key when in this matrix. That will add the "T" option to the cycle

Please note when using a multiple-element microphone (i.e., stereo, surround, etc.) and assigning channels to one master fader AutoTrim will need to be disabled.

## Memory Menu



### Store / Recall Memory

From the store and recall positions, Maxx can save and recall three full recorder setups for different work scenarios. All user set parameters are saved and can be recalled. Please note that after doing a factory restore, all stored memories will be erased.

### Clear Fader Assigns

Selecting clear faders will clear all of the current fader assignments.

### Factory Reset to Default

Recall factory defaults resets all of Maxx's parameters back to the factory settings. If a factory reset is done, all user setting, with the exception of note and track preset names, will be lost and have to be re-imputed. To do a full restore, including note and track names, hold the stop key on boot up. It is advised to do a factory reset when updating software or if Maxx is exhibiting odd behavior.

### Store / Recall to Card

Maxx has the option to save settings to (and restore settings from) the compact flash card. This allows settings to be exchanged between multiple Maxx's.

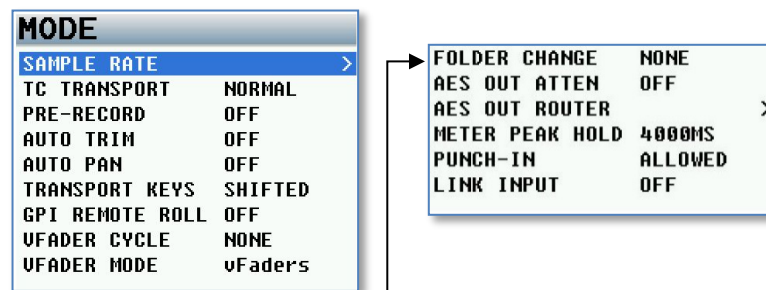


## About Maxx Page

This page displays information about Maxx including the serial number, the software version that Maxx is running, and the DSP and PLD (main rev) version that Maxx is running.

ABOUT MAXX	
MODEL	Maxx 6
SERIAL NUMBER	01234
SOFTWARE VER	v1.01
DSP REV	8
MAIN REV	56
BOOT LOADER	

## Mode Menu



Scroll for additional menu items

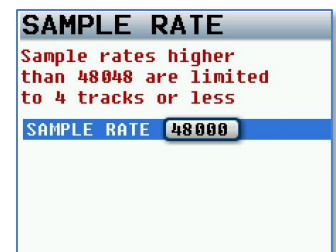
### Sample Rate

Maxx can be set to record the following sample-rates:

44100, 47952, 48000, 48048, 88200, 96000, 192000

Please note that when recording files at a high sample rate of 88200, 96000 or 192000 there are some limitations to Maxx's recording parameters.

- Maxx will record up to 4 analog iso inputs pre-fader only.
- Fader assign will be disabled - all inputs will be routed pre-fader
- Record track assignments will be Input 1 to track 1, input 2 to track 2, input 3 to track 3 and input 4 to track 4.
- Input and card compressors will be disabled.
- NeverClip will be disabled.
- While Maxx will record time coded files the BNC time code connector is disabled - meaning Maxx's time code generator will function but Maxx will not be able to receive external time code or send time code via the BNC connector.
- Prerecord is limited to 2 seconds for all sample rates with the exception of recording more than two tracks at 192K pre-record will be limited to 1 second.



### TC Transport

Time code transport adjusts the way Maxx will go into record mode.

- **Normal** - Maxx will go into record when the record button is pushed.
- **Auto-Load** - Maxx will go into to record with it senses record run time code coming from an external source.

### Pre-Record Set

From the point the Maxx is powered up, all inputted audio is being processed. When prerecord is enabled, up to 5 seconds of that processed audio is held in a prerecord buffer. Then when the record key is pressed that stored audio, with its time code, is included the current take.

Please note the prerecord buffer is dumped after any of the following settings are changed: sample-rate, time code, user-bits, frame-rate or track count. After these parameters are changed the buffer will start to re-build.

Prerecord is limited on sample rates of 88200, 96000 to 2 seconds. When recording more than two tracks at 192K - then prerecord will be limited to 1 second.

## AutoTrim

AutoTrim is a feature that makes the menu knob act as an individual trim knob for all the analog inputs. When AutoTrim is turned on and a fader is adjusted the blue LED next to that fader will illuminate indicating the input routed to that fader will be trimmed when rotating the menu knob. When another fader is nudged, the trim function will move to that input.



## AutoPan

AutoPan is a feature that causes the power key act as a pan knob. When AutoPan is turned on and a fader is adjusted the blue LED next to that fader will illuminate indicating the input routed to that fader will be panned when the power key is pressed. AutoPan is active from any meter screen. When pressing the power key the panning for the illuminated channel will cycle from left to center to right to blank - unless "Prevent Empty Pan" is turned ON in the ENG advanced menu - then the blank option will not be cycled through. When panning with AutoPan the headphone display will temporally display which position that input is panned to L = Left C= Center R= Right.

## Transport Keys

There are two ways that the multi-function keys can be set to control the way Maxx will go into record, stop and playback.

### Shifted Mode

If the transport key is set to shifted mode and the TC, BUS or SETUP key is pressed the menu associated with those keys will open. When set to shifted mode to go into record, playback or stop, the keys will need to be shifted. To shift the keys press the MENU knob while simultaneously pressing the REC, PLAY or STOP key. While in shifted mode it is still possible to directly go into record, play and stop with a single key press by pressing and holding the key for 1.5 seconds.

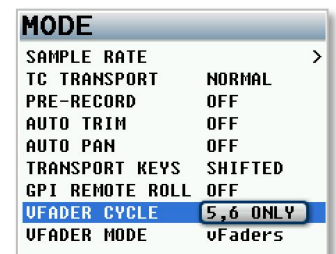
### Unshifted Mode

If the transport key is set to unshifted mode and the REC, PLAY or STOP keys are pressed Maxx will go into record, playback or stop. In unshifted mode to display the TC, BUS or SETUP menus, it is necessary to press the menu knob while pressing the TC, BUS or SETUP key.

## VFader Cycle

Virtual fader will allow analog inputs 5 and 6 and the AES inputs to be mixed right from the ENG meter screen. When using the virtual faders the menu knob will become the hardware fader for those inputs.

Please note when VFader mode is active, the menu knob will need to be pressed for 1.5 seconds to access the main menu.



## GPI Remote Roll

Turning on the remote roll will allow Maxx to use a remote switch to start and stop recording. To use a remote roll switch that toggle switch will need to be connected to the DB15 connector. For pin configuration please see the connector assignments in the back of this manual.

## VFader Mode

VFader mode choose between fader control only to control just the fader or, fader plus trim controls for the inputs that were selected in the VFADER CYCLE menu.

When the virtual fader is active the bottom meter on the ENG Meter Screen will display what will be controlled. Either fader only or fader and trim.



Virtual fader mode is only active while in the ENG meter screen or the virtual fader meter screen

To control the selected inputs:

- Press the MENU knob and the bottom meter on the ENG meter screen will display what input will be controlling with the MENU knob.
- If the fader icon is displayed the MENU knob will adjust the mix for that input.
- If the blue trim icon is displayed the MENU knob will control the input trim of that input.

## Folder Change

The folder change option allows Maxx to automatically change the mirror folder to follow the selected primary folder. If AutoChange is on and the primary folder is changed the mirror folder will change to the same folder. Please note mirror mode still needs to be turned off before changing the primary folder.

## AES Output Attenuation

AES output attenuate will reduce the AES output level by the amount selected. The AES attenuation will allow for full advantage to be taken of the dynamic range of the Never Clip inputs. The output attenuation works the same way as the ISO attenuation on Maxx's record tracks works. The adjustable range is from 1dB to 20dB in 1dB increments.

## AES Output Router

The AES output router assigns what audio will get routed to Maxx's 4 AES outputs. Any one of the 6 analog inputs, 4 AES inputs or record tracks 1 through 6 can be routed to anyone of the 4 AES outputs.

AES OUTPUT	
AES1	In 1
AES2	In 2
AES3	In 3
AES4	In 4

## Meter Peak Hold

Meter peak hold sets the duration the peak indicator (white vertical bar within the meter) is held after the audio hits that peak. The range is 400MS – 8000MS with a step value of 200MS.

## Punch In

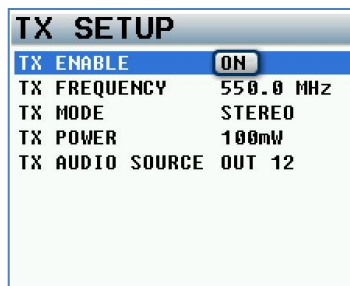
Punch in gives the ability to start a new segment while recording. If punch-in is ALLOWED, pressing (or press and hold) the REC key (depending if Maxx is in shifted or un-shifted mode) will create a new file. If punch in is DISABLED, a new file cannot be created while recording. If the Rec/Stop warning option is enabled there will be an audible beep when a new file is created. The beep is heard in the main headphones only and is not sent to the record tracks or output busses. Please note regardless of the punch in setting Maxx will create a new file when the current file reaches 2GB.

## Link Input

When set to ON the link input allows Maxx to receive the AES mix bus output from another Maxx / Nomad, or any other AES source. The received AES audio channels are mixed individually to the output bus of Maxx. This links the two recorders together allows more inputs to be mixed to the output busses.

## Transmitter Setup

*Only available when the transmitter option is installed*



### Transmitter Enable

Turns ON / OFF the UHF camera link transmitter.

### Transmitter Frequency

Sets the transmit frequency of the UHF camera link transmitter.

### Transmitter Mode

Sets the transmit mode of the UHF camera link transmitter.

- **MONO** - Maxx will transmit output bus 1.
- **STEREO** - Maxx will transmit both output busses.

### Transmitter Power

Sets the transmitter power level to 25, 50 or 100mW

### Transmitter Source

Sets the source of audio that will feed the UHF camera link transmitter.

- **OUT 12** - Maxx will transmit what is being sent to the output buses 1 and 2.
- **TAPE / MONO** - Maxx will transmit what is being sent to tape and mono output buses.

## Auto-Mixer

AUTO-MIXER SETUP	
A-MIX MODE	OFF
MIC ON THRESH	-10 dB
ATTACK	1 ms
DECAY	50 ms
NOISE REDUCTION	0 dB
ATTENUATION	0 dB
A-MIX ENABLES	>

When Auto-Mixer is on, and a speaker starts to talk, Maxx will automatically open that microphone and add that microphone to the mix. Then when a speaker stops talking that microphone will be attenuated “closed” and it will essentially be removed from the mix. Removing unused microphones will result in a lower noise floor giving a cleaner, better sounding mix without having to manually ride the faders. Manually riding faders in unscripted dialog often results in missing the start of when a person begins to speak.

Maxx’s Auto-Mixer has no limit on the number of microphones that can be active at one time. The Auto-Mixer also has a last microphone on feature; this means that even if no one is speaking there will always be one microphone included in the mix, which will be the last active microphone. The last mic on feature allows the mix to never go to absolute silence.

Please note Auto-Mix will be routed to the output bus selected in the A-Mix Enables menu. When using Auto-Mixer it is important that to remove all cross points in the bus assign matrix for the chosen bus or busses. If any cross points are active they will be mixed into the Auto-Mixer audio.

### A-Mix Mode

Enables Maxx’s Auto-Mixer and sets if the Auto-Mixer will work pre-fade or post-fade.

- **Pre-Fade** - The Auto-Mixer is inserted before the faders in the audio chain so only the trim control will affect the microphone levels. Since the Auto-Mixer is before the faders the faders have no effect on the Auto-Mix levels.
- **Post-Fade** - The Auto-Mixer is inserted after the faders in the audio chain and both the trim and the faders will control the levels of the microphones. In post-fade mode a microphone can be pulled out of the mix by lowering the fader and will keeping pre-fade ISO tracks un-affected.

### Mic On Threshold

Sets the level that a microphone needs to be reached before that microphone opens. When a speaker’s microphone reaches the mic on threshold level, as indicated on the input meter, that microphone will open and become part of the mix. The mic on threshold can be set anywhere between -60dB and -10dB.

### Attack

Sets how fast the microphone ramps up to full level when a speaker starts to talk. Please note that a microphone will engage immediately regardless of the attack setting. The attack can be set anywhere between 1 and 150ms.

### Decay

Sets how long a microphone will stay active after the signal has fallen 10dB below the mic on threshold. Decay can be set anywhere between 1 and 150ms.

### Noise Reduction

Sets how much the noise floor is attenuated when no one is talking. Noise Reduction can be set anywhere between 0dB and -10dB.

## Attenuation

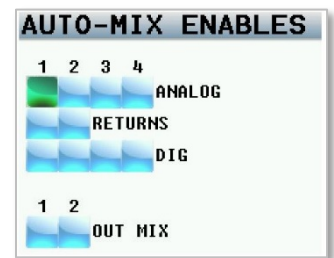
Sets how much each microphone is attenuated when a person stops talking. When a person stops talking that microphone is not closed, the microphone is actually attenuated. The level of attenuation is adjustable here. In some environments it may be more palatable to hear some or most of the ambient microphone noise all the time rather than hear the noise mute and then re-appear when someone talks. Please note that regardless of this setting the last active microphone will always remain open. Attenuation can be set between -10dB and -80dB.

## Auto-Mix Enables

The Auto-Mix enable matrix sets which inputs are included in the Auto-Mix. When an input is selected to be included in the Auto-Mix an "A" will be displayed to the right of the input meter on the meter screen.

The out mix sets which output bus the Auto-Mix will be sent to.

**WARNING:** When assigning Auto-Mix to an output mix bus that bus should not have anything assigned to it. If something is assigned to an output bus with the Auto-Mixer that audio will be mixed into the Auto-Mix essentially defeating the Auto-Mixer. To verify that nothing is assigned go to the output bus assign matrix and make sure that nothing is assigned to that bus.



## Auto-Mixer Functionality

- After the inputs are assigned to the Auto-Mixer the letter "A" will appear to the right of the meter for that input.
- When that input is active the "A" will be replaced by a blue dot indicating that the input is being included in the mix. If multiple microphones are opened at the same time Maxx will display a blue dot for each active input.
- Please make sure all bus routing is cleared for bus that the Auto-Mixer is routed to. This will prevent unwanted audio from mixing into the bus.
- The Auto Mixer will not be able to differentiate between a speaker's voice and noise such as a hit to the microphone. So if the noise is louder than the mic on threshold that will open the microphone as well.



## ZaxNet Setup

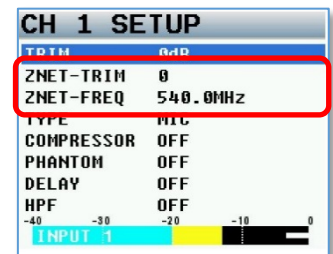


ZaxNet functionally in Maxx will allow for remote control of Zaxcom TRX transmitters. This includes changing frequency, adjusting the input gain, enabling power roll and start and stop the transmitter's recorder remotely.

Then by adjusting the transmitters' parameters with-in Maxx the commands will be embedded in the time code stream out of Maxx. Then by simply connect Maxx's time code output to a ZaxNet transmitting device such as the IFB100, IFB200, TRX900CL Camera Link transmitter, QRX100 (with QIFB), or QRX235 (with QIFB) will send the commands to the transmitters.

## ZaxNet Enable

Turns ON / OFF ZaxNet in Maxx. When ZaxNet is enabled the TRX gain and frequency adjustment menu items will appear in the analog and AES setup pages.



## Transport Commands

Transport commands will send record and stop commands to the TRX transmitters. If the transport commands are set to slaved the transmitters, that are set up to receive ZaxNet record commands, will begin start recording when Maxx goes into record, and will stop when Maxx stops recording. Please see the TRX transmitter manual to set up the transmitters to receive record commands.

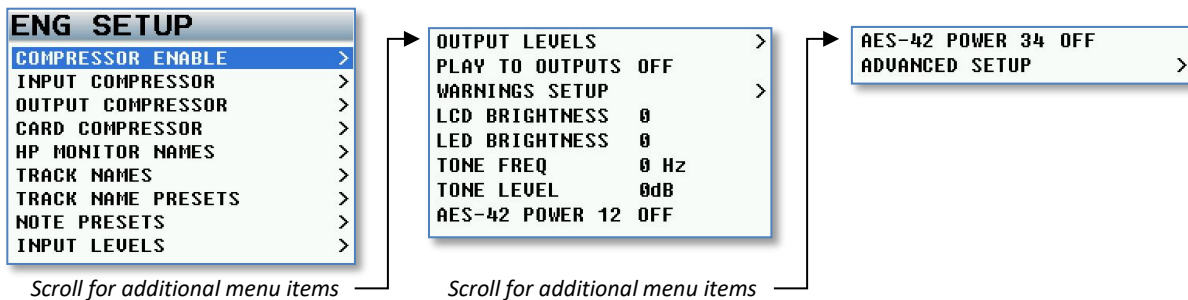
## Power-Roll Mode

Power roll allows the transmitters that are being controlled via ZaxNet to increase its output power level when Maxx goes into record, and decrease to a lower power setting when Maxx stops recording. To use power-roll the TRX transmitters power-roll setting must be set to "Deva Trigger"

The power-roll settings in Maxx are:

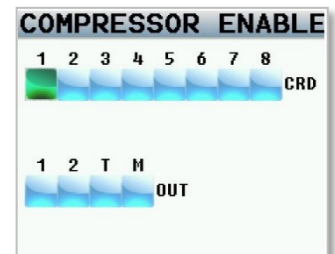
- **ALWAYS LOW** - The transmitter will always run at the low power setting.
- **DYNAMIC** - The transmitter will run at low power between takes and automatically go into high power when Maxx goes into record.
- **ALWAYS HIGH** - The transmitter will always be run at the high power setting.

## ENG Setup



### Compressor Enable

The compressor enable matrix sets which card tracks, output busses, and if the tape out or mono out will have a compressor / limiter enabled. Placing an X in the matrix will enable the compressor for that card track, output bus and or tape and mono out.



### Input Compressor Parameter Adjust

This menu sets the parameters for the input compressor. The Input Compressor settings are global, meaning that the settings adjusted here will be the same for all input Channels.

### Output Compressor Parameter Adjust

This menu sets the parameters for the output compressor settings as well as the tape and mono outputs. The output compressor settings are global, meaning that the settings adjusted here will be the same for all output busses. The parameter for the output compressors allows for makeup gain to be added.

### Card Compressor Parameters

This menu sets the parameters for the card compressor settings. The card compressor settings are global, meaning that the settings adjusted here will be the same for all card tracks. The parameter for the card compressors allows makeup gain to be added.

### Headphone Monitor Names

The monitor naming menu is where the headphone monitor names that appear in the home screens are set. To create a monitor name click on the HP number to open the keyboard. Then use the keyboard to enter the desired name. When finished entering press and hold the menu knob or click OK.

Please note if a headphone name labeled "PLAY" is created when Maxx is playing back the headphone select will automatically jump to "PLAY" preset, when stop is pressed Maxx will automatically return to the last preset that was being listening to.

## Track Names

The track name menu allows for the naming of the record tracks. The track names are then displayed within the card meters for easy identification of what is being recorded, and the name is also contained in the files metadata so post can also easily identify the source of the recorded track. Track names can be individually entered or can be selected from a list of track name presets.

### Naming a track

1. From the track naming menu scroll to the desired track number by rotating the menu knob.
2. Press the menu knob to open the keyboard.
3. Enter the track name.
4. When done hold the menu knob or click OK to enter the name.

### Selecting from the list of track name presets

1. When in the track name menu highlight the track to be named by rotating the menu knob.
2. Press any of the PFL keys to open the track name preset list.
3. Scroll to the desired preset.
4. Press the menu knob.

## Track Name Preset Edit

The track name preset menu allows for a preset list of commonly used track names to be created. There are 20 track name presets available. Each track name can be up to 22 characters long. Existing names can be edited and new track names can be created.

### Creating / editing a track preset

1. Scroll to the desired preset by rotating the menu knob.
2. Press the menu knob to open the keyboard.
3. Enter / edit the preset name.
4. When done hold the menu knob or click OK to enter the name.

EDIT TRACK PRESET	
1:	BOOM
2:	MIX
3:	MID
4:	SIDE
5:	
6:	
7:	
8:	
9:	

## Note Preset Edit

The note name preset menu allows for a preset list of commonly used metadata notes to be created. There are 20 note presets available. Each note can be up to 25 characters long. All existing notes can be edited and new notes can be created.

### Creating / editing a track preset

1. Scroll to the desired preset by rotating the menu knob.
2. Press the menu knob to open the keyboard.
3. Enter / edit the preset note.
4. When done hold the menu knob or click OK to enter the name.

EDIT NOTE PRESET	
1:	AIRPLANE
2:	CIRCLE TAKE
3:	AMBIENCE
4:	TONE -20.000
5:	WILD TRACK
6:	MOS
7:	NO GOOD
8:	EXCELLENT
9:	

## Input Levels Adjust

The input levels menu manages the audio input levels for the slate, camera returns and the digital inputs.

### Slate Level

This is where the internal slate microphone level is adjusted. The slate level is adjustable in 1 dB increments from -12dBu to 21dBu.

### Return / Analog Input 5 and 6 Levels

This is where the levels of the return / line level analog 5 and 6 inputs are set. The level is continuously adjustable in 1 dB increments from -20dBu to 30dBu.

### Digital Inputs 1-4 Levels

This is where the levels of the digital inputs are set. The levels are continuously adjustable in 1 dB increments from -20dBu to 30dBu.

### Extra Input Gain

The extra input gain adds 10dB of digital gain to the analog inputs. The extra input gain is global, meaning that when engaged the gain is applied to all analog XLR inputs.

## Output Levels Adjust

This output level menu manages the output audio levels.

### XLR & Aux Output Bus Levels

Each of the main output can be independently adjusted to one of the following output levels.

- 0dBu - Line Level
- -10dBu - Tape / Consumer Level
- -35dBu - Mic Level

### Mono & Tape Output Bus Levels

The mono and tape outputs can be independently adjusted. Both the mono and tape outputs are continuously adjustable in 1 dB increments from -12dBu to 21dBu.

## Play to Outputs

Play to outputs sets if the playback audio will be sent to the output busses when Maxx is in play back mode.

- OFF - Playback audio will not be outputted to the output busses when playing back from the compact flash card and live audio will continue to be sent to the outputs.
- ON - Playback audio will be outputted from the output busses when playing back. Live audio will be muted and the playback audio only will be sent to the outputs, when stop is pressed Maxx will resume sending live audio to the output busses.

## Warnings Setup

The warning setup menu manages the alerts that are pop up on the LCD screen and send audible alert sent to the headphones. After a warning is displayed, press the headphone knob to acknowledge and dismiss the warning. Please note that there are separate user adjustable voltage cutoff for both internal and external batteries. If internal batteries are not being used it is recommended to turn the battery warning off. The "no-mirror blink" is set to ON the red record LED will blink when recording to the primary folder and not mirroring, when the file is mirroring the LED will stay solid red.

WARNINGS SETUP			
INT BATT WARNING	OFF		
INT BATT THRESHOLD	5.5V		
EXT BATT WARNING	OFF		
EXT BATT THRESHOLD	10.5V		
HP BEEP LOUDNESS	20		
HP BEEP BATTERY	OFF		
HP BEEP LOW DISK	OFF		
HP BEEP REC/STOP	OFF		
NO-MIRROR BLINK	OFF		

## LCD Brightness

This menu is where the brightness of the LCD screen is adjusted. Maxx's screen brightness can be set to 11.

## LED Brightness

This menu is where the brightness of the LEDs are adjusted. This is a global setting meaning that all LED lights will be set to the same brightness level.

## Tone Frequency Adjust

This menu adjusts the frequency of the reference tone. The tone is adjustable from 20 to 20,000 Hz.

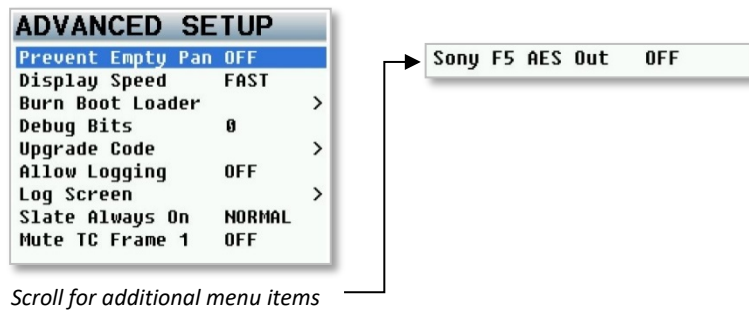
## Tone Level

This menu adjusts the output level of reference tone. The range is -90 to 0dB. Please note it is recommended for most applications to keep the tone level set at -20dB

## AES 42 Enable

This menu is where power for AES-42 microphones is engaged.

## Advanced Setup



### Prevent Empty Pan

Prevent empty pan removes the blank (no assign) leaving only the L, C, R option while cycling through the panning in the ENG pan matrix or when using AutoPan.

### Display Speed

The display speed sets the refresh rate of the LCD display. This should normally be set to FAST. When set to fast the display is updated every frame. Though when using a lot of effects and cross points and/or are recording at a high sample rate and the user interface is getting hard to use, change the display speed to SLOW to slow down the refresh rate. Please note the display speed will automatically go into SLOW when mirroring or when the unit needs more horsepower for recording.

### Burn Boot loader

The boot loader is part of the software that helps boot up Maxx. Generally there is no need to update the boot loader. If the boot loader needs to be updated there will be a note released with the software to do so. The boot loader software is already contained within Maxx's software.

### Debug Bits

The debug bits are a factory diagnostic setting and should stay set to 0.

### Upgrade Code

This page is used to enter in a factory generated code to upgrade Maxx.  
To enter the upgrade code use the alpha / numeric multi-function keys.  
Warning by randomly entering in code numbers can cause Maxx to lock up.

### Allow Logging

Allow logging will turn on the logging feature which will allow Maxx to log warning and error messages which then can be used by the factory to diagnose the unit. The logged messages are displayed on the log screen. If logging is not turned on then Maxx will not log the errors.

### Log Screen

The log screen is where Maxx displays the logged errors and warnings.

## Slate Always On

- **Normal** - This is the typical setting that would be used. With this setting pressing and holding the slate key will activate the slate microphone and releasing the key will deactivate the slate.
- **Forced** - When the slate microphone is activated the forced setting locks the slate microphone in the on position. To deactivate the slate microphone a power cycle the Maxx.

## Mute TC Frame 1

This is for factory debugging and should be set to OFF for normal operations.

## Sony F5 AES Out

The AES recognize is used for some Sony F5 or F55 cameras that cannot recognize the AES signal from the Maxx.

- **OFF** - Maxx will output a normal AES signal.
- **ON** - Maxx will constantly send a special signal via the AES out to allow the camera to recognize the AES signal.

## Pressing the Time Code Key

### Time Code Slate

Pressing the TC key once opens an inverted visual time code slate.

The slate is used to provide a visual sync for the camera to match picture and sound. When the time code slated is displayed pressing the MENU knob will freeze the time code display and a 1-frame beep tone will be sent to any bus that has tone routed to an output.



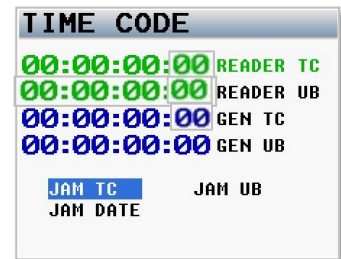
### Time Code Jam

Pressing the TC key a second time advances to the time code jam menu.

The reader shows the time code and user bits that are being received from a source that is connected to the time code in on the BNC connector. The generator shows the current running time code and user bits of Maxx's internal time code generator.

From this page time code and user bits can be jammed from a connected time code source or jammed from Maxx's internal calendar and clock.

Please note that Maxx contains a battery backed real-time clock. This clock is used to maintain running time code and internal calendar. It is advised to change the battery every 2 to 3 years. The battery is a CR2320 3V coin cell battery.



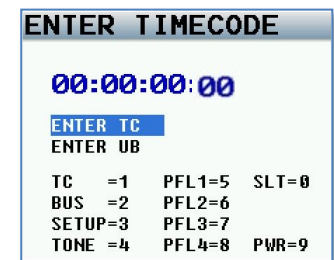
- **JAM TC** - Jams Maxx's time code from an external source, such as a camera or a master time code unit.
- **JAM UB** - Jams Maxx's user bits from an external source, such as a camera or a master time code unit.
- **JAM DATE** - Maxx's user bits are created from the internal calendar.

### Enter Time Code

Pressing the TC key a third time advances to the page where the time code and user bits can be manually entered.

#### Manually Entering Time Code

1. Press the MENU knob to highlight the TC.
2. Rotate the MENU knob to select the desired position.
3. Press the keys to enter the desired numeric value.
4. To enter the time code press the menu knob. Or Maxx will automatically jam the time code when all 8 digits are entered.



#### Manually Entering User-Bits

1. Press the MENU knob to highlight the UB
2. Rotate the MENU knob to select the desired entry position
3. Each character position can take a hex number (0 - 9, A - F).
4. To enter A - F, double click the keys  
TC=A, BUS=B, SETUP=C, TONE=D, PFL 1=E, PFL 2=F
5. Once the last digit has been entered, the user-bits are jammed.



## Time Code Setup

TIMECODE SETUP	
TC MODE	FREE-RUN
TC FRAME RATE	23.98
TC DISPLAYED	GENERATOR
TC OUTPUT	GENERATOR
INCREMENT UBITS	OFF
UB DATE STYLE	EU DDMMYY
SET DATE	>
TC BNC MODE	INPUT

## TC Mode

- **FREE-RUN** - Time code runs continuously.
- **REC-RUN** - Time code will start to run when Maxx begin to record.
- **CJAM** -Time code and user-bits are continuously updated from a connected external source.
- **CJAM TC** - Time code only is continuously updated from a connected source.
- **CJAM UB** - User-bits only is continuously updated from a connected source.

## TC Frame Rate

TC frame rate sets Maxx's time code frame-rate.

Maxx supports all standard SMPTE frame-rates: 23.98, 24, 25, 29.97, 29.97DF, 30, 30DF

## TC Displayed

TC display sets what time code Maxx displays.

- **GENERATOR** - The time code that is displayed on the screen is from Maxx's internal time code generator.
- **CARD** - Time code that is displayed on the screen is from the file that is being recorded or being played back. If Maxx is recording the current time code will be displayed

## TC Output

TC output sets what time code is sent from the time code output connector

- **GENERATOR** - The time code that is outputted on the BNC connector is from Maxx's internal time code generator.
- **CARD** -The code that is outputted from the BNC connector is from the file being recorded or being played back. If Maxx is recording the current time code will be outputted. Quick tip - to control another device with Auto-Load capability, set Maxx's time code out to card and when recording begins on Maxx the other device will go into record as well.

## Increment UBits

If incremental user bits set to ON the user-bits will increment with each take.

## UB Date Style

If the date is being assigned as the user bits the UB date style determines how the date is displayed.

- **EU** - European (DDMMYY)
- **US** - United States (MMDDYY)

## Set Date

This is where Maxx's internal calendar is set.

## Time Code Routing

This menu sets the function of the BNC time code connector.

- **OUTPUT** - Maxx will output time code on the BNC connector.
- **INPUT** - Maxx will receive time code on the BNC connector.

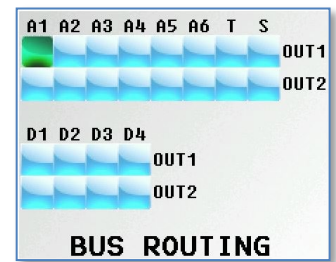
## Pressing the Bus Key

### Output Bus Assign

The bus routing matrix is where the output busses are assigned. The analog inputs, digital inputs, tone and slate all can be assigned from here. The output busses can be assigned either pre or post fader and

The top line of the matrix indicates the following sources:

- **A** - Analog Inputs 1-6
- **T** - Tone
- **S** - Slate
- **D** - Digital Inputs 1-4



### Setting a Cross-Point

Rotate the MENU knob to scroll through the matrix. Stop in the matrix, at the intersection of the input channel and output bus, where the desired output will be routed to. Press the MENU knob to cycle through the available cross points, which are:

- **X** - The input will be sent to the output bus post-fader.
- **P** - The input will be sent to the output bus pre-fader.
- **X̄** - The input will be sent to the output bus post-fader with phase inverted.
- **P̄** - The input will be sent to the output bus pre-fader with phase inverted.

To add the option to phase invert, while in this matrix press the STAR key. Then by pressing the MENU knob, the phase invert option will now be added to the cycle. Power cycling the unit will reset Maxx so there is no inversion option but will keep any phase invert choice already made.

### Tape/Mono Out Matrix

The tape / mono matrix sets what audio is routed to the tape and mono out connector. Any of the analog inputs, digital inputs, or output busses can be routed to the tape and the mono out.



### Card Track Tone Enable

Assigns which card track will have tone assigned to it.

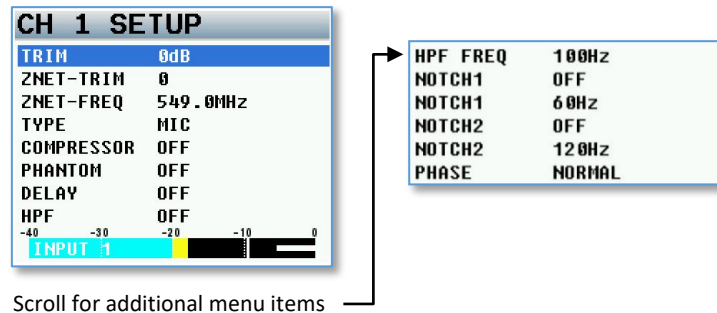
### Card Track Slate Enables

Assigns which card tracks will have the slate microphone assigned to it.

## Pressing the Setup key

### Analog Setup Menu

Pressing the setup key will open the analog setup menu where the parameters of the analog inputs can be adjusted. After pressing the setup key pressing one of the multi-function keys will jump to the setup menu for the corresponding input.



### Adjustable Parameters

- **Input Trim** - Adjusts the input trim.
- **ZNET-Trim** - When ZaxNet is turned on this is where the input trim on the TRX transmitters can be remotely adjusted. Please note the input channel number represents the ZaxNet unit code. So for example channel 1 will control a TRX transmitter that is set to unit code 1.
- **ZNET-Freq** - When ZaxNet is turned on this is where the frequency of the TRX transmitter can be remotely adjusted. Please note the input channel number represents the ZaxNet unit code.
- **Input Type** - Selectable between mic level and line level.
- **Input Compressor** - Turns on the input compressor and set compressor groups. For more information on setting a compressor group see input compressor linking below.
- **48 Volt Phantom Power** - Turns on the 48 volt phantom power.
- **Input Delay** - Adjust the input audio delay. The delay is variable from .0MS to 100MS in .1MS increments.
- **High Pass Filter** - Turning on the HPF turns on a fixed frequency hardware filter. After the hardware filter is engaged the software filter can be adjusted between 40Hz and 230Hz.
- **Two Variable Notch Filters** - The notch filters are independent adjustable between 20 and 18000Hz.
- **Phase Invert** - Inverts the phase of the input.

### Input Compressor Linking

When using a stereo or surround microphone the input compressors (limiters) should be linked to insure that the spatial integrity of the signal is maintained. For example, a stereo microphone on inputs 1 and 2 may have their limiters set to Group A. So if the signal on input 1 needs compressing, the compressor on both 1 and 2 will activate together rather than just channel 1. Maxx allows for three separate compressor groups to be created.

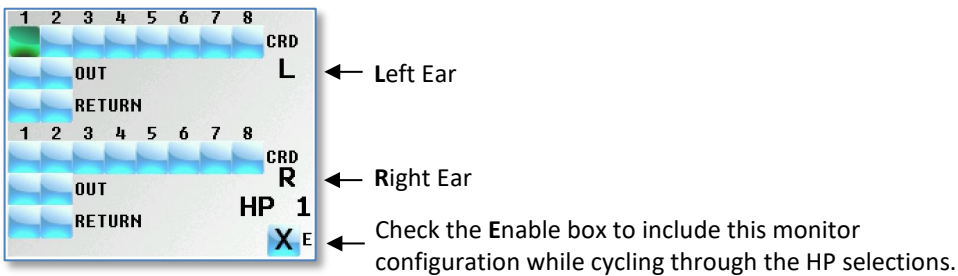
### Digital Input Setup

After pressing the setup key pressing the PFL keys will open the digital setup menu for each of the 4 digital inputs. Pressing PFL 1 will open the input setup menu for AES 1, pressing PFL 2 will open the setup menu for AES 2, fader 3 for AES 3 and 4 for AES 4. The AES setup menu has the same parameters that are in the analog setup menu with the exception of the input type and the phantom power option.

The unit codes for the ZaxNet trim and frequency adjustments will be unit code 5 for fader 1, unit code 6 for fader 2, unit code 7 for fader 3 and unit code 8 for fader 4.

Setup

## Headphone Setup



There are 10 individual Headphone matrices available to store a headphone configuration consisting of any combination of the following:

- Card tracks (CRD)
- Output Buses (OUT)
- Camera Returns / Analog 5 and 6 (RETURN)

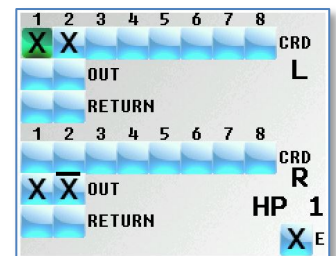
## Setting up the headphone matrix:

1. To access the headphone setup matrix - simultaneously press MENU knob and HEADPHONE knob.
2. While in the matrix, scroll the MENU knob to highlight the cross-point to be listen to.  
(L selections are sent to the left ear and R selections are sent to the right ear)
3. Press the MENU knob to put an X in the matrix.
4. Select the E to enable that setup to be active when toggling through the headphone selects.
5. Press the HEADPHONE knob to advance to the next matrix.
6. To exit, press and hold the HEADPHONE knob.
7. Each matrix can be named. To name a matrix proceed to the ENG setup menu and select MONITOR NAMES.

## Setting up a headphone matrix to decode MS stereo

The following is the proper setting for M-S headphone decoding. This example uses card track 1 as the Mid and card track 2 as the Side:

Please note to add the optional phase invert - press the STAR key when in the headphone setup matrix. Then by pressing the MENU knob, will add the phase invert option. Phase invert will be shown with an X and a line above it.



## Pre Fader Listen

Pressing the PFL keys puts Maxx into Pre Fader Listen mode. The PFL will follow the fader assignment. Once one of the PFL keys is pressed, the name in the headphone monitor field is replaced with PFL alternating with the selected channel number(s) that are being monitored.

To change the PFL feed press to another input press the PFL key for that fader. To listen to multiple inputs simultaneously press and hold a second key which will add that channel.

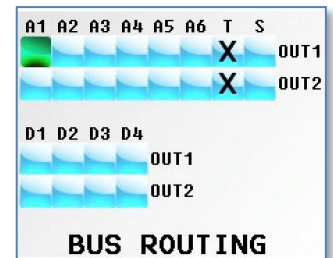
To go back to normal listening press the HEADPHONE knob.

## Setting Up and Engaging Tone

### Assigning Tone to Output Busses

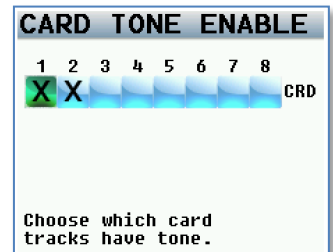
To assign tone to an output bus, press the BUS key to access the output bus routing matrix to select which output bus will receive tone.

Note only the busses with tone routed to it will output the slate tone when the visual time code slate tone is activated



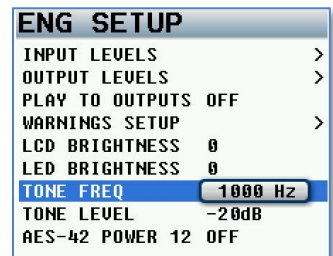
### Assigning Tone to Card Tracks

To assign tone to card tracks, press the BUS key and go to the TONE ENABLE matrix to select which card tracks will receive tone.



### Adjusting Tone

The tone level and the frequency of the tone can be adjusted in the ENG setup menu. Please note it is usually advised to keep the tone level at -12dB

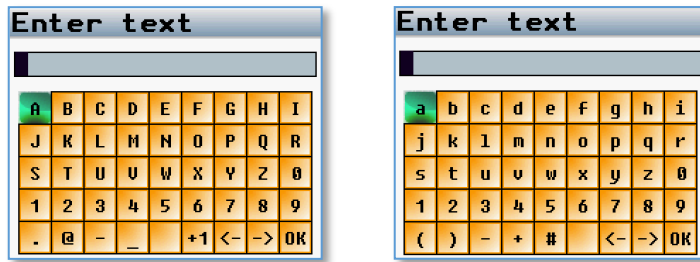


### Engaging Tone

To toggle tone generation on / off, press and hold the TONE key on the face of Maxx.

## Entering Text

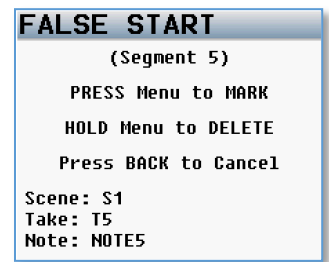
The text keyboard is where the alphanumeric data is entry for all parameters that require data input. The keyboard will automatically open when an item that requires text is selected.



- Rotating the MENU Knob to the right and left will cause the highlighted box to move right and left. At the end of a line the highlighted box will wrap around to the next line.
- Pressing and rotating the MENU knob will cause the highlighted box to move up and down.
- When the desired box is reached - press the MENU knob to select the character.
- Pressing and holding the MENU knob for 1 second will toggle between upper and lower case letters.
- If inputting scene or take metadata +1 can be selected which will cause that characted to increment by 1.
- To enter the final text press and hold the headphone knob for 1 second or click OK.

## False Start

Pressing and holding the STOP key for 1 second after stop is pressed will open the false start page. From this page a false start can be marked or deleted.





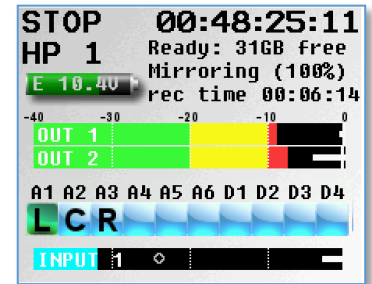
## ENG Bag Operation

ENG mode was created to aid in mixing and recording when involved in a “run and gun” situation.

In ENG mode all 10 inputs can be trimmed, mixed and panned right from the ENG Home screen.

### ENG Home page

- Output busses 1 and 2 (Left / Right).
- 10-channel routing matrix where the inputs can be panned. The inputs can pan to L (left), R (right) or C (center).
- Input meter that follows AutoTrim.



### ENG Panning

The pan routing matrix is essentially a shortcut to the output bus assign matrix. From this matrix an input can be route post-fade to the outputs busses. When a panning change is made in the ENG pan routing matrix, it adjusts the routing in the output bus assign matrix.

When Auto-Pan is enabled and Maxx is displaying are in the ENG home screen

- Press the BUS key to enter the PAN routing matrix.
- Rotate the MENU knob highlight the desired input.
- Press the MENU Knob to cycle the pan assignment as Blank, L, C and R. If prevent empty pan is set to ON in the advanced ENG menu the blank option will be removed, leaving only L, C, R.

### AutoTrim

AutoTrim eliminates the need for a separate hardware trim knob for each analog input. AutoTrim mode can be enabled in Mode page.

When AutoTrim is enabled and a fader is “touched”, two things come into play:

- The blue LED next to the fader illuminates to indicate that channel is active for AutoTrim.
- The MENU knob functions as the input trim for that channel. Turning the MENU Knob adjusts the trim level for that input. As the trim level is adjusted the trim indicator displayed in the meter will follow.



Please note the trim indicator’s position does not relate to a specific value. It is used for relative adjustment only.

### AutoPan

AutoPan is a feature that causes the POWER key act as a pan knob. When AutoPan is turned on in the mode menu and a fader is adjusted the blue LED next to that fader will illuminate indicating the input routed to that fader will be panned when the POWER key is pressed. AutoPan is active from any meter screen.

When pressing the POWER key the panning for the illuminated channel will cycle from left to center to right to blank - unless “Prevent Empty Pan” is turned on then the blank option will not be cycled through.

When panning with AutoPan the headphone display will temporally show which input is panned to which position.

**A1=L**   **A1=C**   **A1=R**

Analog input 1 panned Left, Center, Right

## Virtual Fader

Maxx has 4 hardware faders and 10 inputs. To mix all the inputs from the ENG home screen the VFader mode in the mode menu can be activated, then the MENU knob as the hardware fader for those inputs.

### Operating virtual faders

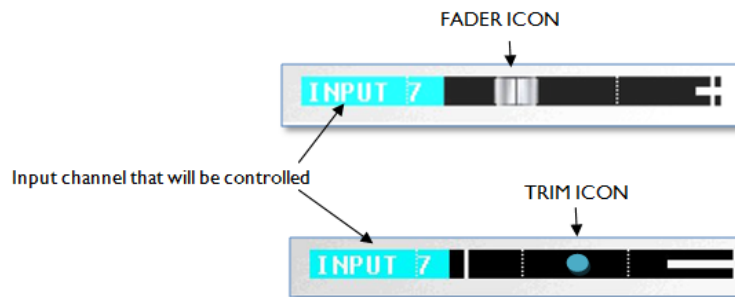
- In the mode menu select “VFader Cycle” and set it for the inputs to be controlled.



- In the mode menu select “VFader Mode” to choose to adjust faders only or faders and trim.



- Pressing the MENU Knob will cycle through the chosen inputs and modes. The bottom meter will display what input will be adjusted.
- If the fader icon is displayed the MENU Knob will adjust the mix of that input.
- If the blue trim icon is displayed the MENU Knob will control the trim of that input.



## Compact Flash Cards

Currently we recommend using SanDisk or Transcend compact flash cards. Any size card 4 to 128GB will be fine. For normal operation it is not necessary to use fast speed cards as it will not make Maxx write any faster.

We do not advise using Lexar, Kingston, Delkin or off brand cards from questionable manufacturers. And please only buy cards from reliable sources and avoid questionable retailers because counterfeit cards do exist and can be unreliable and cause crashing.

If planning to record at 96 kHz, choose a card that claims 10 MB per second sustained write speed maximum write speed does not count.

It is recommended to test the cards before use, even if it is a brand/size that has been used in the past. To test the cards simply perform a record test for 15 to 20 minutes. If Maxx stops recording or causes a crash it is most likely a result of bad media.

## Syncing Maxx to a Denecke Slate

The LTC stream out of the Maxx has a “jitter” in the time code signal at 29.97 fps and 23.976 fps so if a Denecke TS-C or the TS-3 slate is set to “Auto Set” (position 5) the slates can identify the wrong code potentially causing a time code drift.

So when setting the slate to receive time code at 29.97 or 23.976, do not use the auto set mode. Just simply set the rotary dial to the corresponding time code frame rate. When jamming the slate “Sync Err” may appear. This message can be ignored, the slate will accept the sync and the slate and Maxx will stay in perfect sync with each other.

## Maxx Connector Assignments

### XLR - 3 Audio Input / Output Connectors

- Pin 1 - Ground
- Pin 2 - Signal (+)
- Pin 3 - Signal (-)

### TA-5 Audio Input / Output Connectors

- Pin 1 - Ground
- Pin 2 - Channel A (Left) ( + )
- Pin 3 - Channel A (Left) ( - )
- Pin 4 - Channel B (Right) ( + )
- Pin 5 - Channel B (Right) ( - )

### Mono & Tape Output Connectors (TA-5)

- Pin 1 - Ground
- Pin 2 - Mono Out ( + )
- Pin 3 - Mono Out ( - )
- Pin 4 -Tape Out ( + )
- Pin 5 -Tape Out ( - )

### Headphone Output Connectors (1/4" TRS)

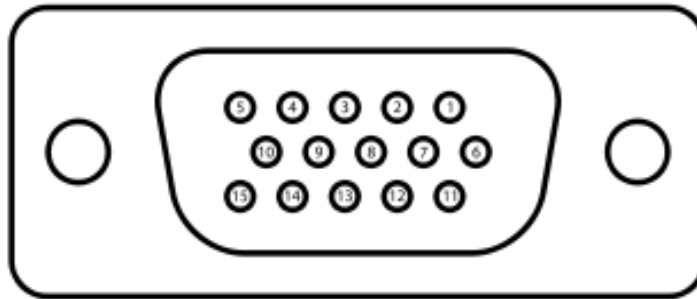
- Tip - Signal Left
- Ring - Signal Right
- Sleeve - Signal ground

### Power Connector (Hirose-4 Connector)

- Pin 1 - Ground ( - )
- Pin 2 - Not Connected
- Pin 3 - Not Connected
- Pin 4 - DC ( + )

## AES Digital Input / Output Connectors (DB-15)

Maxx uses a mini DB-15 (AKA: DE-15) connector for the AES Digital input and output connectors.



Top row pins: 5, 4, 3, 2, 1  
 Middle row pins: 10, 9, 8, 7, 6  
 Bottom row pins: 15, 14, 13, 12, 11

DB -15 Pin Number	IN / OUT	AES PAIRS	Connects to XLR Pin
1	IN	3 / 4	2 (+)
2	IN	1 / 2	2 (+)
3	MIX BUS OUT	L / R	2 (+)
4	GP OUT	-----	-----
5	LINK IN	5 / 6	2 (+)
6	OUT	1 / 2	3 (--)
7	OUT	1 / 2	2 (+)
8	GROUND	GROUND	1
9	OUT	3 / 4	3 (--)
10	OUT	3 / 4	2 (+)
11	IN	3 / 4	3 (--)
12	IN	1 / 2	3 (--)
13	MIX BUS OUT	L / R	3 (--)
14	GP IN	-----	-----
15	LINK IN	5 / 6	3 (--)

## Updating Firmware

Each Maxx is shipped with the latest firmware version installed. When newer firmware becomes available, it can be downloaded from the Zaxcom website: <http://www.zaxcom.com/software-updates>

Newer version of beta software may be found on the Zaxcom Forums: <http://www.zaxcom.com/forum>

### Upgrading the Firmware

1. Format a compact flash card using a PC or Mac.
2. Using a PC or Mac download the new software named (MaxxProgFile\_vX.XX.bin) and copy it to the card.
3. Insure that a set of fully charged batteries are installed or a stable power supply is connected.
4. With Maxx powered down, insert the CF card containing the .bin file into the CF slot. Make sure only one .bin file is on the card.
5. Press and hold the STAR key while turning on Maxx.
6. Once the "Preparing to burn ROM" line is displayed, release the STAR key.
7. After the "SUCCESS" is displayed, cycle the power.
8. In the About Maxx Menu verify that Maxx is running the version just installed.
9. After updating the software, it is generally advised to perform a restore to factory defaults.

## Product Support

**Register** your product with Zaxcom: <http://zaxcom.com/support/product-registration/>  
Download the latest **Firmware** from: <http://zaxcom.com/support/updates/>  
Download the latest **User Manuals** from: <http://zaxcom.com/support/updates/>  
**Submit Technical Questions** at: <http://www.zaxcom.com/submit-a-technical-question>  
Submit information for **Repair Services** at: <http://www.zaxcom.com/support/repairs>  
Join the **Zaxcom User Forum** at: <http://www.zaxcom.com/forum/forum.php>  
Join the **Zaxcom Face Book User Group** at: <https://www.facebook.com/groups/68219906513993>



**Analog In**

Analog inputs: 4 mic/line level with 48V phantom power and 2 line level / camera returns

Connector: 4 x XLR-3F (2 with .25" jack)

Mic level input range: -56 to -26 dBu

Line level input range: -10 to +8 dB

Distortion: 0.0015%

ADC bit-depth: 24 bits

Dual ADC input dynamic range: 137 dB with NeverClip™

Clipping level: +28 dBu

Frequency response: 28\* Hz to 22 kHz (48 kHz sampling-rate)

THD + noise: 0.0015%

\*Serial #10107 and above, prior to this 50 HZ – 22 kHz

**Analog Out**

Analog outputs: 2 Balanced XLR, 0dBu, -10dBu and -35dBu

1 Balanced TA5 (2 bus) 0dBu, -10dBu and -35dBu

Tape/mono output: 2 balanced TA5

Headphone 1: 1/4 inch stereo bus

Output level: 0 dBu @ -20 dBFS

Clipping level: +20 dBu

DAC Bit-depth: 24 Bits

DAC Dynamic Range: 115dB

Impedance: 30 ohm

**Digital In/Out**

Channel count: 2 AES or AES42 pairs (4 channels)

Connector: DB-15 mini (DE-15)

Source: Mix/Direct

Sample rate conversion: 32-192 KHz

**Transmitter - optional**

Power Output: 10 / 50 / 100 mW – Software Selectable

RF Modulation: Proprietary Digital Method

RF Frequency Range: 518.0 to 698.0 MHz (Typical Blocks are 24 MHz wide)

RF Frequency Step: 100 KHz

RF Bandwidth: 200 KHz

Channel Separation: 500 KHz (700 KHz recommended)

Antenna Connector: 50  $\Omega$  SMA Female

Emission Designator: 180 KV2E

FCC Part: 75.861

**Recording**

Track count: 8

Bit-depth (primary card): 24 bits

Bit-depth (mirror card): 16 / 24 bits

Sample rates (kHz): 44.1, 47.952, 48, 48.048, 96, 192

Head room: 20 to 44 dB

Format: MARF II, .BWF

Max Pre-record duration: 5 seconds

**Data Storage**

Internal: Compact Flash

Mixer Type: 32 bit floating point DSP

Mixer Cross Point: 8 input x 4 output (Pre-fader / Post-fader / Phase Inversion)

A-D / D-A resolution: 24 bit

Head room: Selectable 12 to 20 dB

**Effects**

Delay: 0 to 60 mS in .1mS steps

Notch filter: 2 band, 20 Hz to 20 kHz frequency range adjustable

Compressor type: soft knee with side chain

High Pass Filter: 20 Hz to 230 Hz

**Time code Reader/Generator**

Time code type: SMPTE

Connector: BNC

Input Voltage: 1-4VPP

Output Voltage: 2VPP

Clock Accuracy: 1.54 PPM (1 frame out in 6 hours)

Time code Frame-rates: 23.98, 24, 25, 29.97NDF, 29.97DF, 30NDF, 30DF

**Power**

Internal: 6AA 7-9 VDC, 4 hours of usage (NiMH)

External: 8 to 18 VDC

Power Connector: Hirose

Battery Meter: Yes, on LCD display

**Physical**

Size (H x W x D) 2.0" x 7.5" x 5.25"

Weight: 2.5 pounds

# Zaxcom Warranty Policy and Limitations

Zaxcom Inc. values your business and always attempts to provide you with the very best service.

No limited warranty is provided by Zaxcom unless your Maxx ("Product") was purchased from an authorized distributor or authorized reseller. Distributors may sell Product to resellers who then sell Product to end users. Please see below for warranty information or obtaining service. No warranty service is provided unless the Product is returned to Zaxcom Inc. or a Zaxcom dealer in the region where the Product was first shipped by Zaxcom.

## Warranty Policy

The Product carries a Standard Warranty Period of one (1) year.

**NOTE:** The warranty period commences from the date of delivery from the Zaxcom dealer or reseller to the end user.

There are no warranties which extend beyond the face of the Zaxcom limited warranty. Zaxcom disclaims all other warranties, express or implied, regarding the Product, including any implied warranties of merchantability, fitness for a particular purpose or non-infringement. In the United States, some laws do not allow the exclusion of the implied warranties.

## Troubleshooting & Repair Services

No Product should be returned to Zaxcom without first going through some basic troubleshooting steps with the dealer you purchased your gear from.

To return a product for repair service, go to the Zaxcom Repair Services page <http://www.zaxcom.com/repairs> and fill in your information; there is no need to call the factory for an RMA. Then send your item(s) securely packed (in the original packaging or a suitable substitute) to the address that was returned on the Repair Services page. Insure the package, as we cannot be held responsible for what the shipper does.

Zaxcom will return the warranty repaired item(s) via two-day delivery within the United States at their discretion. If overnight service is required, a FedEx or UPS account number must be provided to Zaxcom to cover the shipping charges.

\*Please note a great resource to troubleshoot your gear is the Zaxcom Forum: <http://www.zaxcom.com/forum>.

## Warranty Limitations

Zaxcom's limited warranty provides that, subject to the following limitations, each Product will be free from defects in material and workmanship and will conform to Zaxcom's specification for the particular Product.

### Limitation of Remedies

Your exclusive remedy for any defective Product is limited to the repair or replacement of the defective Product.

Zaxcom may elect which remedy or combination of remedies to provide in its sole discretion. Zaxcom shall have a reasonable time after determining that a defective Product exists to repair or replace a defective Product. Zaxcom's replacement Product under its limited warranty will be manufactured from new and serviceable used parts. Zaxcom's warranty applies to repaired or replaced Product for the balance of the applicable period of the original warranty or thirty days from the date of shipment of a repaired or replaced Product, whichever is longer.

### Limitation of Damages

Zaxcom's entire liability for any defective Product shall, in no event, exceed the purchase price for the defective Product. This limitation applies even if Zaxcom cannot or does not repair or replace any defective Product and your exclusive remedy fails of its essential purpose.

### No Consequential or Other Damages

Zaxcom has no liability for general, consequential, incidental or special damages. These include loss of recorded data, the cost of recovery of lost data, lost profits and the cost of the installation or removal of any Product, the installation of replacement Product, and any inspection, testing or redesign caused by any defect or by the repair or replacement of Product arising from a defect in any Product.

In the United States, some states do not allow exclusion or limitation of incidental or consequential damages, so the limitations above may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

## Your Use of the Product

Zaxcom will have no liability for any Product returned if Zaxcom determines that:

- The Product was stolen.
- The asserted defect:
- Is not present,
- Cannot reasonably be fixed because of damage occurring when the Product is in the possession of someone other than Zaxcom, or
- Is attributable to misuse, improper installation, alteration, including removing or obliterating labels and opening or removing external covers (unless authorized to do so by Zaxcom or an authorized Service Center), accident or mishandling while in the possession of someone other than Zaxcom.
- The Product was not sold to you as new.

## Additional Limitations on Warranty

Zaxcom's warranty does not cover Product, which has been received improperly packaged, altered or physically abused.