USER MANUAL

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Firmware Version VTX1

ZAXCOM.COM

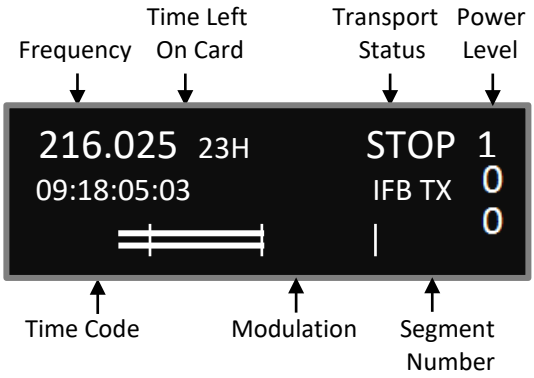
VTX1

1. **OLED Display**
2. **INC / Record Key**
   - Increases the parameters of a menu item.
   - When in the Home Screen:
     - Pressing and hold when home screen record is enabled will put the VTX1 into record.
   - When in the Transport Control Screen:
     - When not recording a quick press will cause the VTX1 to play back.
     - A quick press while playing back will jump ahead within the same segment.
     - Press and hold to advance to the next segment.
3. **UHF SMA Antenna Connector**
4. **DEC / Stop Key**
   - Decreases the parameters of the menu items.
   - When in the Home Screen:
     - Press and hold when the home to stop recording.
   - When in the Transport Control Screen:
     - A quick press when playing back will cause the VTX1 to stop playback.
     - Press and hold while playing back will jump to the start of that segment.
     - A quick press while stopped will jump back to the previous segment.
5. **Menu Key**
   - Press it to access the menu and to advance to the next menu item.
   - Hold while powering up to access the Extended Menu.
6. **2.4 Gig ZaxNet SMA Antenna Connector**
7. **Power Switch**
8. **Micro SD Card Slot**

   To insert a Micro SD card, turn the card so the finger contacts are facing up towards the LCD screen and down toward the slot. Insert the card into the slot and press it down until a slight click is heard. To remove it, press the card the same click is heard again.

1. **Audio In Connector** - TA5M
   This connector will be used to input both analog and digital audio.
   - Analog audio is two channels balanced line level.
   - Digital audio is an AES pair.
2. **USB** - Future Functionality.
3. **RS422** - Future Functionality.
4. **Time Code In** - BNC
5. **DC Power Input** - 8 to 18 Volts DC Hirose HR10A-7P-4P.

Home Screen



Audio meter *Indicators at -20, -10, 0 dBFS*

Frequency

This is the VHF transmit frequency of the Camera Link. If the Camera Link is being used in RECORD ONLY mode “NOTX” will be displayed.

Time Left on the Card

This is the remaining record time left on the card. Please note that regardless of how much time is left on the card the VTX1 can only record 500 segments. If 500 segments are reached the card will need to be reformatted.

Transport Status

Displays the current mode of the recorder

- STOP - Recording / Playback is stopped.
- REC - The VTX1 is recording.
- PLAY - VTX1 is playing back a recorded audio file.

ZaxNet Status

- IFB RX - The VTX1 is receiving ZaxNet. Please note the Zaxcom receive range is limited to a few feet.
- IFB TX - The VTX1 is transmitting ZaxNet.

Transmitter Power Level

Shows what power level the Camera Link is set to. The Camera Link can be set to transmit at 25, 50 or 100 mW.

Time Code

Shows the time code from the camera link’s time code generator.

Segment Number

Displays the number of recorded segments on the micro-SD card.

Audio Meter

Displays the modulation of the inputted audio signal. The meter indicators are at -20, -10 and 0dBFS. If using a stereo modulation both the left and right audio levels will be shown.

Main Menu

To cycle through the main menu, press the MENU key.

UHF Transmit Frequency Set

This menu is where the UHF transmit frequency is set.

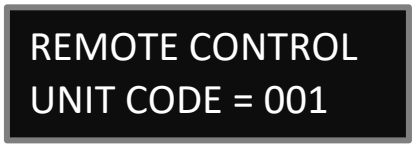
- Short presses of the INC or DEC key will change the frequency by 0.1 MHz
- Press and hold the INC or DEC key to change by the value by 0.5 MHz

Remote Transmitter Gain Adjust

The remote gain menu adjusts the gain of the transmitter that has the same group and unit code displayed wirelessly via ZaxNet. If the transmitter is not in range of the ZaxNet signal, the gain command will have to be repeated once the transmitter comes back into range
Please note that this does not affect the gain of the VTX1.

- Press the INC key to increase the gain. The display will show ”++” in the top right hand corner as the gain is being adjusted.
- Press the DEC key decrease the gain. The display will show”- -” in the top right-hand corner as the gain is being adjusted.
- Each key press will alter the gain by 2dB.

Unit Code Set



This menu is where the unit code for the transmitter that will be controlled is adjusted. Each transmitter that is being remotely controlled will be assigned a unit code. That unit code allows for that specific transmitter to be controlled individually from the VTX1. The unit code can be set to any number from 1 to 200 or “ALL” can be selected - to control all transmitters at the same time.

Remote Frequency Adjust

The remote frequency adjust menu is where the UHF frequency of the transmitter that is being remote controlled is changed from.

Adjusting the transmitter frequency remotely

- In the unit code menu set the unit code for the transmitter to be adjusted.
- Press the INC key to increase the frequency.
- Press the DEC key to decrease the frequency.
- Pressing the INC or DEC key will change the frequency by .1 MHz
- Pressing and holding INC or DEC the key will change the frequency by 1MHz.

Remote Power Mode

The remote power mode menu allows for the RF power setting of the transmitters that is being controlled to be adjusted. The transmitters have three selectable power settings:

- **NORMAL** - The transmitters are at full power.
- **WAKE** - If a transmitter is set to REMOTE STANDBY it will power up to a non-transmitting low power mode. A transmitter set to wake will save approximately 75% of the power of normal operations.
  To use wake mode set the BOOT UP MODE to REMOTE STANDBY in the transmitter. When in remote standby the transmitter, when powered up, will remain in standby mode until it receives the wake command. Once the transmitter is awoken the only way for it to go back into standby mode is by a power cycle.
  So when "WAKE" is selected in this menu the transmitter will go to full power.
- **LOW 2** - Low 2 disables the RF power amplifier, RF board and microphone pre-amp on the transmitter. In LOW 2 mode the transmitter will save approximately 50% of the power of normal operations.
  The transmitter can be put into or taken out of LOW 2 mode as often as desired when selected in this menu.

  ### Remote Power mode Settings:

  - **0: POWER=ON** - Normal operation - the transmitter will be fully powered ON
  - **1: POWER=ON** - Normal operation (same as 0) filler to prevent accidental power setting adjustment.
  - **2: POWER=ON** - Normal operation (same as 0) filler to prevent accidental power setting adjustment.
  - **3: POWER=ON** - Normal operation (same as 0) filler to prevent accidental power setting adjustment.
  - **4: POWER=ON** - Normal operation (same as 0) filler to prevent accidental power setting adjustment.
  - **5: POWER=WAKE** - This would be selected to wake a transmitter to full power when the boot up mode is set to remote standby.
  - **6: POWER=LOW2** – This setting will put the transmitter into and out of LOW2 power mode. A transmitter can come in and out of LOW2 mode as needed. When in LOW2 mode "LOW 2" will be displayed on the transmitters' home screen. Please note LOW2 will not disable recording but audio will be muted. Once the power is set to Low2 the VTX1 can be powered down. Then when the VTX1 is powered up all transmitters being controlled will automatically come up to full power since the VTX1 will always boot up to the 0 Power setting.
    Please note if the transmitter is not in range of the ZaxNet signal, the power setting command will have to be repeated once the transmitter comes back into range.

Playback Menu

Recorded files can be played back from this page.
Displayed is the current mode of the recorder: REC, PLAY or STOP followed by the time code, then the current segment number, time code frame rate and the audio meter.

Playing back from the transport page

- Pressing the INC key while stopped will play the segment.
- Pressing the INC key while playing back will jump ahead approximately 2 minutes.
- Press and holding the INC key will advance to the next segment.
- Pressing the DEC key while playing back will stop the playback.
- Holding the DEC key while playing back will take you to the start of that segment.
- Pressing the DEC key while stopped will jump back a segment.

Lock Page

← Countdown clock starting at 5 seconds

← After the transmitter locks

This page enables a key lock function so no parameters can be changes. When the lock page is landed on a countdown clock will begin. After 5 seconds the VTX1 will lock, and the display will indicate that it is LOCKED. If this screen is exited before the 5 seconds are up the transmitter will not lock.
To lock the transmitter before the 5 seconds press and hold the DEC key.
If the OLED brightness setting is set to “2” the screen will blank out when the transmitter is locked. The only thing that will be displayed is a small character displaying the status of the internal recorder.
S - The recorder is stopped, R - The VTX1 is recording, and P - The VTX1 is playing back.
Pressing the INC key when the transmitter is locked will display the transmitters group and unit code, its transmit frequency and serial number. Pressing the DEC key will display the units name, and current record segment number.

To unlock the VTX1

- Press and hold the MENU key and press INC keys 5 times.
  Or
- Powering down and reboot the VTX1.

Sub Menus

Menu groups

The VTX1 has six sub menu groups

- **Time Code** - Changes the time code parameters of Camera Link.
- **Transmit** - Changes the parameters of the UHF transmitter.
- **Record** - Changes the parameters of the on-board recorder.
- **ZaxNet** - Changes the ZaxNet parameters of the Camer Link.
- **Audio** - Changes the parameters of the transmitted and recorded audio.
- **Setup** - Changes the parameters of the general operation on the Camera Link.

Accessing and navigating the extended menu groups

- From in the home screen press the DEC key three times or hold the MENU key while booting up.
- Pressing the INC or DEC key to cycle thru the menu items.

Entering and navigating a sub menu

- When landing on the desired menu group press the MENU key to enter that menu.
- Press the MENU key to cycle thru the menu items.
- To return to the top of the menu press the MENU key to cycle to the top or press and hold the MENU key for 1.5 seconds.

Exiting the extended menus

To exit press the MENU key to cycle through the sub menu items until HOME MENU is displayed, then press the MENU key. Or cycle the power.

TIME CODE MENU

Time Code Frame Rate Set

The time code frame rate menu is where the time code frame rate is set.
The VTX1 will lock to and record all standard time code frame rates.

- 23.98, 24, 25, 29.97DF, 29.97DF, 30 DF, 30 NDF

Time Code Source Select

The time code source menu selects how the transmitter will receive its time code.

- **IFB (RF)** - The VTX1 will receive time code via ZaxNet – please note the VTX1 would need to be within a few feet of the of transmitter to receive IFB time code
- **BNC CONNECTOR** - The VTX1 will receive time code via the BNC input.

TC Jam Mode Select

This menu controls if the VTX1 will go into record when it receives a record run time code.

- **AUTO-JAM NORMAL** - The VTX1 will continuously jam time code via ZaxNet and will go into record when receiving a record command via ZaxNet or if the unit is put into record manually by pressing the CARD and INC keys simultaneously.
- **AUTO-LOAD REC RUN** - In Auto-Load mode the VTX1 will go into record when it detects rolling time code and will stop when the time code stops.

Mute Time Code Transmission Until Jammed

If the mute time code menu is set to ON, the ZaxNet transmitter will not broadcast time code over ZaxNet until the VTX1 receives time code and jams its own internal time code generator. This prevents the ZaxNet from sending incorrect time code to another device.

Auto Frame Rate Enable

When turned ON the VTX1 will automatically set its frame rate to the frame rate that is feeding the VTX1. If auto frame rate is set to OFF, the frame rate will need to be adjusted manually.

Manual Time Code Entry

This menu allows for the time code to be manually entered.

To manually enter the time code

- Press the INC and DEC key to adjust the hours.
- Press the MENU key to advance cursor to the minutes position and press the INC and DEC key to adjust.
- Press the MENU key to advance the cursor to the JAM position and press the INC key.
- Please note the seconds and frames will always start at 00.
- To by-pass this menu press and hold the MENU key.

TRANSMIT MENU

UHF Transmitter Power Level Set

The UHF transmit power of the VTX1 is set from this page. The transmit power can be adjusted to output 25, 50 or 100mW.

UHF Transmit Modulation Set

The UHF transmission modulation is the way the VTX1 sends audio to the receiver. Please note if the transmission format that is set here, and the format set on the receiver do not match, the receiver will be unable to decode the audio from the VTX1. Also note that after any change to the transmit format the VTX1 will need to be rebooted. The VTX1 can be set to stereo, mono, XR or ZHD96 modulation. To send two channels of audio to a camera the modulation will need to be set to stereo.

Power Roll Mode

Power roll will allow the transmitter to stay in a lower transmit power setting to conserve battery power, and then when triggered the transmitter will increase the output power.

- **OFF** - Power roll is disabled and the VTX1 will remain at the set power level.
- **DIVA TRIGGER** - A command from a Zaxcom recorder will cause the VTX1 to go to full power.
- **RECORD TRIGGER** - When the transmitter goes into record either manually or from an AUTO-LOAD trigger the VTX1 will go to full power.

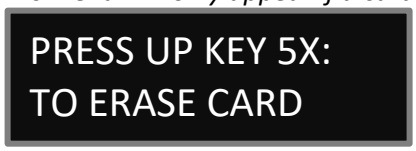
Transmitter Disable - Record only mode

- **Record Only Mode** - Will set the VTX1 to act as a standalone recorder and will not transmit any audio over UHF.
- **Normal TX Mode** - The VTX1 will record and transmit audio over UHF.

RECORD MENU

SD Card Format

This menu will only appear if a card was inserted prior to booting up



The Micro SD card is erased and formatted from this menu. Please note that all cards need to be formatted in the VTX1 prior to recording.

Before formatting the card, the VTX1 can optionally be renamed (see set-up menu). When the VTX1 is named that name is included in the recorded file name this makes it easier to differentiate files from different recorders. The card name menu is located at the end of the set-up menu. The factory default name is the transmitter's serial number.

Partial Format

If the card's FAT32 file structure gets corrupt while doing a file transfer, and the card is no longer recognized by the VTX1 or by ZaxConvert, a partial format can be done. The partial format rewrites the FAT32 file structure and leaves the recorded audio untouched. To do a partial format from this menu press the DEC key 9 times "PARTIAL FORMAT" will then be displayed.

Playback Menu

Recorded files can be played back from this page.

Displayed is the current mode of the recorder: REC, PLAY or STOP followed by the time code, then the current segment number, time code frame rate and the audio meter.

Playing back from the transport page

- Pressing the INC key while stopped will play the segment.
- Pressing the INC key while playing back will jump ahead approximately 2 minutes.
- Press and holding the INC key will advance to the next segment.
- Pressing the DEC key while playing back will stop the playback.
- Holding the DEC key while playing back will take you to the start of that segment.
- Pressing the DEC key while stopped will jump back a segment.

Time Left on Card

This menu will only appear if a card was inserted prior to booting up

This page displays the remaining record time left on the card as well as the time already recorded on the card.

Automatic Record after Boot up

Record on boot up allows the onboard recorder to automatically start recording after the TEXCL3 boots up.

- **ON** - The onboard recorder will automatically start to record after the VTX1 boots up.
- **OFF** - The onboard recorder will wait for a ZaxNet command or a manual record trigger to start recording.

ZAXNET MENU

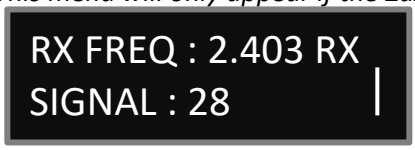
ZaxNet Mode

This menu sets the mode of the ZaxNet transceiver.

- **OFF** - The ZaxNet transceiver is disabled
- **RX** - The VTX1 will receive ZaxNet commands, audio, and time code.
  This screen will display what ZaxNet data is being received by the VTX1. Including total received information packets, ZaxNet TC received, and remote-control commands received. This information is used for debugging purposes. Please note the VTX1 will need to be within a few feet of the ZaxNet transmitter to receive signal.
- **TX** - The VTX1 will transmit ZaxNet commands, audio, and time code.

ZaxNet Receive Frequency Set

This menu will only appear if the ZaxNet is set to receive (RX) mode



The ZaxNet receive frequency is the frequency that the VTX1 will get its wireless time code and remote-control commands on. This frequency will need to match the frequency of the corresponding ZaxNet transmitter. When the VTX1 is receiving a valid ZaxNet signal the signal strength will be shown as well as signal strength meter that runs vertically on the far-right side of the screen.

ZaxNet Transmit Frequency Set

This menu will only appear if the ZaxNet is set to transmit (TX) mode

This is the frequency that the ZaxNet transmitter will send commands, time code and audio on.

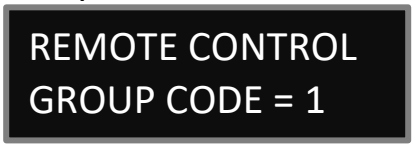
Transmitter Remote Roll Enable

This menu allows the transmitters being controlled via ZaxNet to follow the record and stop commands of the VTX1. If this is set to ON and the VTX1 recording is triggered all transmitters that are being controlled from the VTX1 will begin to record, and when the VTX1 stops all transmitters will stop.

Follow External Record

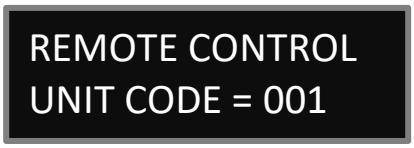
This menu allows the VTX1 to automatically go into record when a Zaxcom recorder goes into record. To do so ZaxNet needs to be enabled on the time code out of the recorder, then hardwire the time code out into the VTX1. Then when the recorder goes into record the VTX1 will go into record.

Group Code Set



The group code allows transmitters to be grouped together so a “group” of transmitters can be controlled via ZaxNet without affecting others.
So, for example a VTX1 set to group 1 will control transmitter set to group 1 and a VTX1 assigned to group 2 will control group 2 transmitters. This is helpful if two or more people on set are sending ZaxNet commands. Therefore, the different group codes allow each person to be independent and not interfere with each other. Most users leave the group set to 1 on all their Zaxcom products. Group codes can be set from 1 to 99.

Unit Code Set



This menu is where the VTX1 is assigned a unit code. The unit code is a unique number used to identify each transmitter within a particular group. This allows individual transmitters within the same group to be independently controlled. Each transmitter should have a different unit code.
Unit codes can be assigned any number from 1 to 200.

Beep Set

This menu will only appear if the VTX1 is set to transmit (TX) mode

When the record beep is set to ON, and the VTX1 is recording, the confidence audio sent to the ERX via ZaxNet will have an audible beep, in variable intervals, giving conformation that the VTX1 is indeed recording. The beeps will only be heard in the ERX and will not be recorded on the card, or be sent to the UHF receiver. The intervals can be set between 2 to 18 seconds in 2 second increments.

ZaxNet Transmit Power

This menu is where the ZaxNet transmit power level is set. The ZaxNet transmitter can be set from 0 to 7 with 7 being the highest.

AUDIO MENU

High Pass Filter

The high pass filter range is 70Hz to 220Hz in 10Hz increments.

2K Notch Filter

The 2K notch filter is useful in removing digital RF interference.

IFB Audio Mix

The IFB audio mix sets what audio will be transmitted from the VTX1 via ZaxNet. Please note that this setting only affects the ZaxNet IFB audio and not the UHF transmitted audio.

- **RIGHT ONLY** - Right inputted audio only will be transmitted.
- **LEFT ONLY** - Left inputted audio only will be transmitted.
- **LEFT AND RIGHT** - Both Left and right audio will be summed to mono and transmitted.

Audio Input Select

The audio input select sets what type of audio will be inputted to the VTX1.

- **ANALOG** - Used when inputting an analog audio signal.
- **DIGITAL** - Used when inputting a digital audio signal.

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SETUP MENU

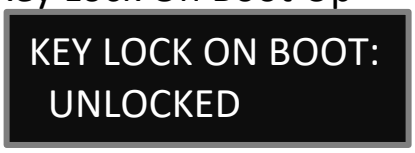
RS422 Mode

This is a factory debug page to determine that the RS422 connector is functioning properly.

Test Tone

The VTX1 has an internal tone generator which will generate tone so the signal chain can be properly gain staged. From this menu pressing the INC key will turn on the tone generator and cycle through the tone options which are 500Hz at -20dBFS, 1000Hz at -20dBFS or 500Hz at full scale.

Key Lock On Boot Up



This menu sets what happens to the keys on the face of the VTX1 after boot-up.

- **LOCKED** - After boot-up has completed, the transmitter will automatically go into lock mode and the keys will be locked to prevent accidental changes to the settings.
- **UNLOCKED** - After boot-up the keys will remain unlocked. In unlocked mode the keys can still be locked going into the lock screen in the main menu and wait 5 seconds.

To unlock the keys at any time - press and hold the MENU key while pressing the INC key 5 times.

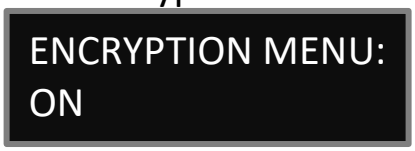
QRX / ERX Firmware Update

This menu is used to update the firmware on a UHF or ERX receiver.
If the ZaxNet mode is set to OFF or receive (RX) this menu will allow for QRX firmware to be updated – if the ZaxNet mode is set to transmit (TX) then this menu will allow for ERX firmware to be updated.
For complete update instructions see the firmware section in the back of this manual.

Information Page

This page displays the current firmware version, the serial number, the DSP version, and the option code.

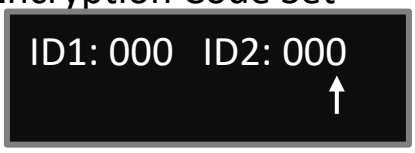
Hide Encryption Menu



This setting will hide the encryption menu. A hidden encryption menu allows for quicker navigation and prevents accidental changes.

- **HIDDEN** - The encryption menu will not appear when cycling through the menu settings.
- **DISPLAYED** - The encryption menu will appear.

Encryption Code Set



If an encryption code is set the transmitted audio will be encrypted and can only be listened to if the receiver has the matching encryption code entered. When receiving an audio signal and the codes do not match, all that will be heard is white-noise or silence. So if using encryption it is important to make sure the matching receiver has the same code.
These two sets of numbers are formed into a single six-digit encryption code which provides a total of 16,777,216 possible combinations.
Please note that both of these codes should be set to 000 for normal un-encrypted operations

Adjusting the encryption code

1. Momentarily press the MENU key to advance to the next character.
2. To change the designated character, press the INC or DEC key.
3. To exit this page, press and hold the MENU key for 1 second.

Hide Transmitter Name Menu

This setting will hide the name menu. A hidden name menu allows for quicker navigation and prevents accidental changes.

- **HIDDEN** - The name menu will not appear when cycling through the menu settings.
- **DISPLAYED** - The name menu will appear.

Transmitter Name Set

The transmitter name menu allows the VTX1 to change the name from the default name - which is the unit's serial number. The name becomes part of the file name and is included in the metadata of the BWF file. Naming the unit aids in identifying the files from several different recorders.
The maximum name length is 8 characters. Any letter or number can be used. If desired a space can even be used.

To set/change the transmitter name

1. Press the INC or DEC key to change the character in the current position above the arrow.
2. Press the MENU key to proceed to the next character.
3. When finished, press and hold the MENU key to set the name.

Media

While any size card will work in the VTX1 transmitter we recommend using a 4GB Micro SD card. We also recommend only buying a brand name card such as Transcend or SanDisk.
Please note Transcend Premium cards with the red stripe are not recommended.
And very importantly please buy all cards from a reputable dealer because counterfeit cards exist and can cause recording issues.
We also highly recommend that all cards are tested before taking them out into the field.
Here is a simple testing procedure to determine if the card will function correctly:

1. Format the card in the transmitter.
2. Power cycle the transmitter.
3. Record at least 20 minutes of audio to the card with no time code source.
4. Look at the Main Screen it should still be recording in segment #1.
5. Playback and listen to the file.

Media Capacity

The VTX1 can use Micro SD cards, up to 16 GB. While any size card will work, we recommend using 4GB cards. Please note that regardless of the size of the card the onboard recorder will only be able to record up to 500 individual segments on any given card.
Available recording times will depend on the selected modulation and are as follows:

SD Card Size	Available Record Time Mono / Stereo	Available Record Time XR
512 MB	3 hours	6.75 hours
1 GB	6 hours	13.5 hours
2 GB	12 hours	27 hours
4 GB	24 hours	54 hours
8 GB	48 hours	108 hours
16 GB	96 hours	216 hours

Please note the transmitter will **NOT** record onto the card if:

- The card was not inserted before the TRX booted up.
- If the card was removed while the power was on.
- If LOW BATTERY is being displayed.

Recording Format

The media card is formatted using a FAT32 file system. While recording, the unit places all recorded audio in a single file on the media. The files generated by the recorder (.zax format) can only be recognized by Zaxcom's ZaxConvert program. Using ZaxConvert will transfer the file to a Broadcast Wave or MP3 file. ZaxConvert is available to anyone for free from the Zaxcom website ***http://www.zaxcom.com/firmware-updates***

Firmware

Each unit is shipped with the latest firmware version installed. As newer firmware becomes available it can be downloaded from the Zaxcom website:
http://www.zaxcom.com/firmware-updates
Newer version of beta firmware may be found on the Zaxcom Forums:
http://www.zaxcom.com/forum

It is recommended to keep a copy of the "SNXXXX.ME" file for each transmitter. The SNXXXX.ME file contains the setup parameters of that specific transmitter - so in the event that there is a problem with the transmitter and the settings get corrupt the SNXXXX.ME file can be used to recreate the setting for that transmitter. To copy and save the SNXXXX.ME files simply format a card in each transmitter then copy and archive the SNXXXX.ME files to a computer.

Updating the VTX1 firmware

1. Format a micro-SD card in the transmitter.
2. Remove the card and with a computer delete the "SNXXXX.ME" file.
3. Download the CL firmware "CL-XXX.bin" from the Zaxcom website and copy it onto the formatted card.
4. Power down the VTX1 and insert the card.
5. Simultaneously hold down the INC and DEC keys while powering up the unit.
6. The screen will display "PRESS MENU TO BURN" with the version of firmware that will be loaded.
7. Press the MUNU key and the VTX1 will start burning the firmware.
8. From power up to "DONE" will take about 30 seconds.
9. Upon completion, cycle the power and confirm that the VTX1 is running the new firmware.

WARNING: During the update do not power down the unit, if the unit should lose power during the upgrade, it may need to be sent back to Zaxcom to be reprogramed.

Updating ERX firmware with a VTX1 transmitter

1. From the ZaxNet menu set ZaxNet mode to transmit (TX).
2. Check that the ERX is set to the same ZaxNet frequency that the VTX1 is set to transmit on. Check that the GROUP ID is set the same in both the VTX1 and ERX, and make sure encryption is turned off.
3. Format a micro-SD card in VTX1 transmitter.
4. Remove the card, and with a computer delete the "SNXXXX.ME" file.
5. Download the ERX firmware "ERX-XXX.bin" from the Zaxcom website and copy it onto the formatted card.
6. Insert the card into the VTX1.
7. Proceed to the SETUP MENU and select PRESS UP TO SEND ERX PROG FILE
8. From the firmware update menu on the ERX press the INC key 5 times to see WAITING FOR PROGRAM.
9. Press the INC key on the VTX1 to trigger the update process.
10. The ERX should indicate its progress after a few seconds.
11. When the ERX has been updated the screen will display "SUCCESS".

WARNING: Before updating the firmware be sure to insert a fresh set of batteries and do not power down the unit during the update process, if the unit should lose power during the upgrade, it may need to be sent back to Zaxcom to be reprogramed.

Wiring Configurations

Balanced Line Level Analog In

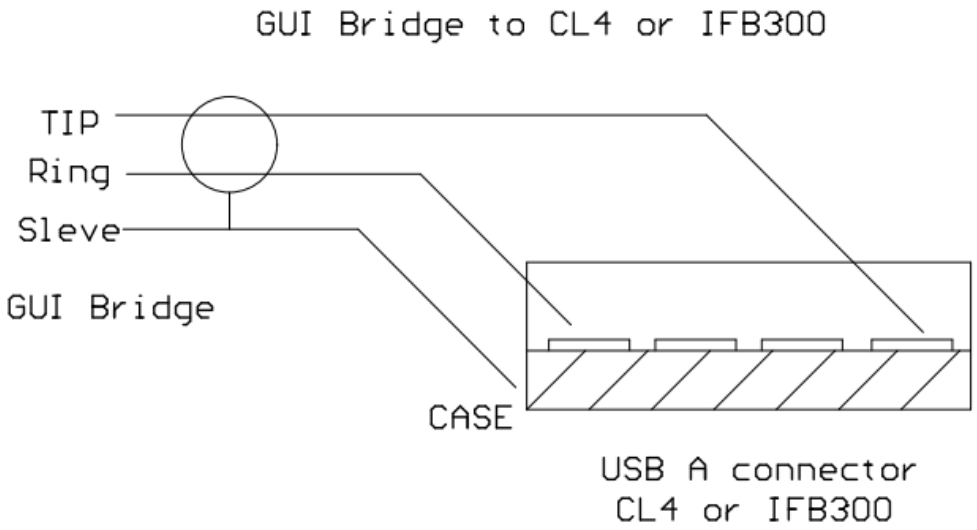
Uses a Switchcraft TA5-F

Analog Audio Input		TA5 On the VTX1
Shared Ground	→	PIN 1
Left (+)	→	PIN 2
Left (-)	→	PIN 3
Right (+)	→	PIN 4
Right (-)	→	PIN 5

AES Digital in

Uses a Switchcraft TA5-F

AES Input		TA5 On the VTX1
Ground	→	PIN 1
Signal	→	PIN 2
Signal	→	PIN 3
No Connection		PIN 4
No Connection		PIN 5



Operating Frequencies

ZaxNet - Remote Control and Time Code

2.403 to 2.475 GHz

VHF - Audio

VTX1.5

192.100 to 216.975 MHz

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/682199065139938/***

Specifications

Transmitter
Power output: 25 / 50 / 100mW – Firmware Selectable
RF Modulation: Proprietary Digital Method
RF Frequency Range (Two versions are available):

- 192.100 – 216.975

Antenna Connector: 50 Ω SMA Female
Emission Designator: 180 KV2E, 180KF3E
FCC Part: 74 and 60

Transmitter Audio
Dynamic Range: 114 dB
Distortion: 0.002%
Frequency Response: Mode 0: 20 Hz to 16 kHz
System Group Delay: 3 ms
Analog Input Range: -10 to +4 dBu
Analog input type balanced line level
Audio input Impedance: 4.7 k Ω
ADC Bit-Depth: 24 Bits
ADC Sampling-Rate: 32 kHz
AES input Balanced with sample rate conversion
Sample rate range 32 Khz to 96 Khz

Time code Reader/Generator
Clock Accuracy: 1.54PPM (1 Frame Out in 6 Hours)
Time code Type: SMPTE
Time code Frame Rates: 23.98, 24, 25, 29.97NDF, 29.97DF, 30NDF, 30DF

Recording
Media: Micro SD Card (Flash Memory)
File Format: .ZAX
Recording Time: Up to 216 Hours (16 GB card)

2.4 GHz ZaxNet Receiver
RF Frequency Range: 2.403 to 2.475 GHz
RF Modulation: Digital Spread Spectrum
RF Frequency Step: 0.001 GHz (1 MHz)
RF Bandwidth: 1 MHz
Channel Separation: 2 MHz
Sensitivity: -96 dBm

Physical / Power
Weight: 7.3 oz
Dimensions (H x W x D): 1”x 3.55” x 3.23”
Display: OLED
Power consumption: 2.13 watts

All Specifications are subject to change without notice.

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 VTX1 ("Product") was purchased from an authorized distributer or authorized reseller. Distributers 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.

NOTICE:

Most users do not need a license to operate a wireless microphone system. Nevertheless, operating a microphone system without a license is subject to certain restrictions:

- the system may not cause harmful interference,
- it must operate at a low power level (not in excess of 100 milliwatts),
- it has no protection from interference received from any other device.

Purchasers should also be aware that the FCC is currently evaluating the use of wireless microphone systems, and these rules are subject to change. For more information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC's wireless microphone website at: ***www.fcc.gov/cgb/wirelessmicrophones.***To operate wireless microphone systems transmitting with greater than 50mW of radiated power, you must qualify as a Part 74 user and be licensed.

Warning: Changes or modifications to this device not expressly approved by Zaxcom Inc. could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter (contains the module PR6-VTX) and has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
Quarter Wave Whip Antenna, 5.19dBi gain, 50 Ohms

Le présent émetteur radio (PR6-XRT) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Quarter Wave Whip Antenna, 5.19dBi gain, 50 Ohms

USA - FCC Part 74 and 90, FCC Identifier PR6VTX
Canada - Industry Canada RSS 210, IC:12755A-VTX

Zaxcom Digital Wireless are protected under following patent #'s:
7,711,443/7,929,902/8,835,814 B2/9,094,636/8,878,708 9,336,307/10,276,207/10,901,680/9,406,224/10,230,342/ 11,610,605

For a full list of patent information, please visit: ***https://zaxcom.com/company/patents/***

ZAXCOM

Declaration of Conformity

ZAXCOM, INC.
230 West Parkway, Unit 9
Pompton Plains, NJ 07444
June 1, 2022

We certify and declare under our sole responsibility that the following product:

TRXLA5, TRX745, TRXFB3, TRXCL5, ZMT4, ZMT4-Flex, ZMT4-X, and ZMT4-HM wireless microphone transmitters, restrictive use for residential, office and professional use only

Conforms with the essential requirements of the EMC Directive 2004/108/EC and R&TTE Directive 99/5/EC, based on the following specifications applied:

EN 300 422-2 v1.3.1 Radio Parameters
EN 301 489-9 v1.4.1 Immunity
EN 60950: 2006/A1:2011 Product Safety (low voltage directive)
EN 50566: 2013 RF Exposure Safety

Our authorized representative in Europe is Mr. Roger Patel, Director of Everything Audio located at Elstree FIlm Studios, Shenley Road, Borehamwood, Herts WD61JG in England.

Glenn Sanders
President
Zaxcom, Inc.

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