

## **Ion USB Cassette Converter**



### **Instruction Booklet**

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# Using the ION USB Cassette Converter

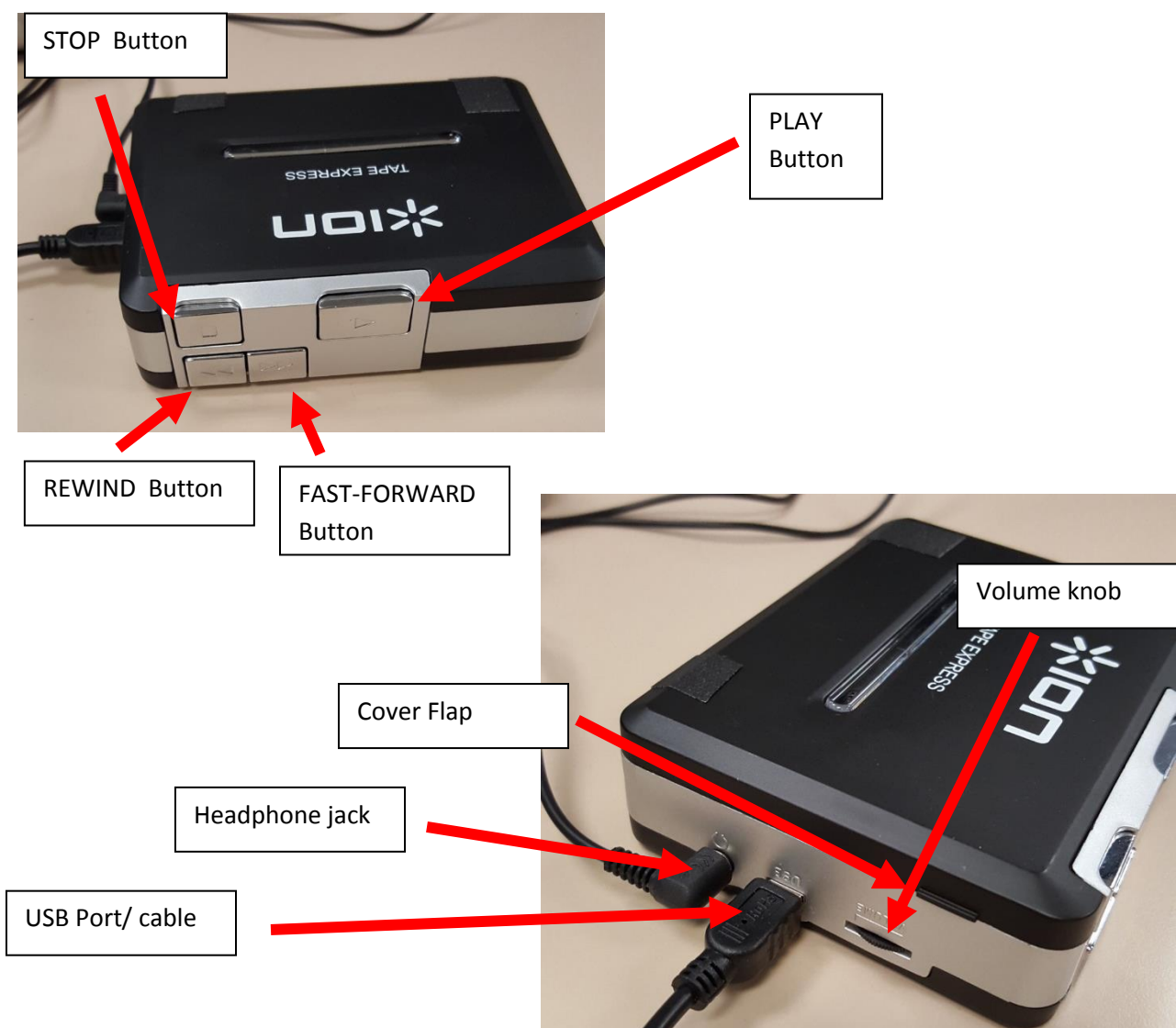
The Ion USB Cassette Converter will help you convert your old audio cassettes into a digital .WAV audio file (usable on a computer or to burn onto a CD disc) using the EZ VINYL/TAPE CONVERTER SOFTWARE.

NOTE: If you'd like to create an .mp3 version of your audio files you are welcome to use free audio software on one of our computers to convert your .WAV files over the .mp3 format. Jump down to the **CONVERTING TO .MP3 with AUDACITY** section on page 14

The following is a step-by-step guide that will walk you through how to use the ION USB Cassette Converter:

## CONVERTING TAPES USING THE EZ VINYL/TAPE CONVERTER SOFTWARE

1. Familiarize yourself with the ION USB Cassette Converter



2. Pull up on the cover flap to open cover.



3. Insert the cassette you want to convert into the converter.



4. Close the Tape deck.



5. If needed, press the REWIND button to rewind the tape to the start. Press the STOP button once the tape has finished rewinding.





6. Double check that the volume knob is turned up (roll tab wheel to the left).



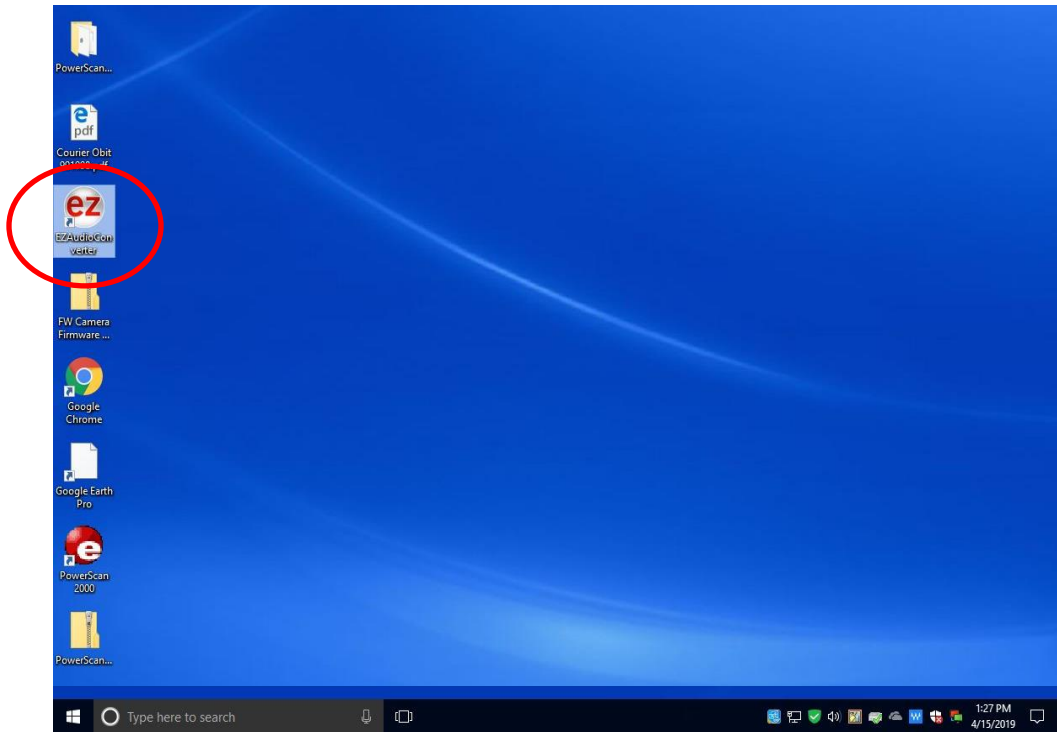
7. Connect the end of the USB cable into the computer to connect the converter with the PC.



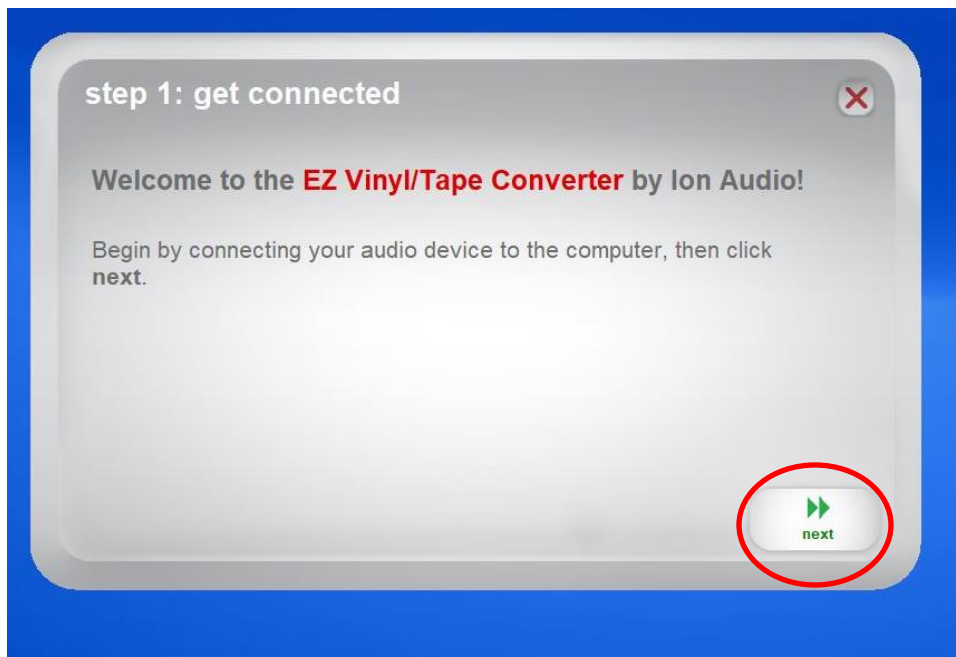
8. You can wear the headphones to listen along if you prefer.



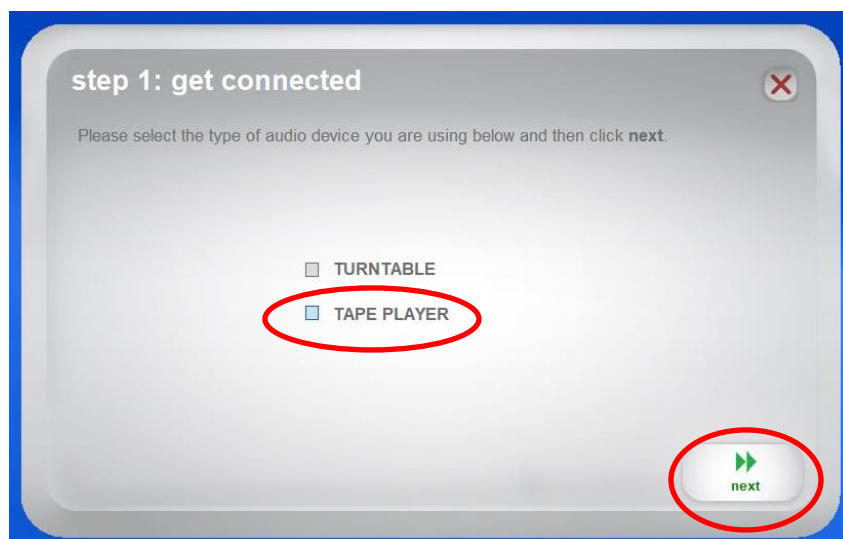
9. On the PC desktop, left click with the mouse twice on the EZ Audio Converter Icon.



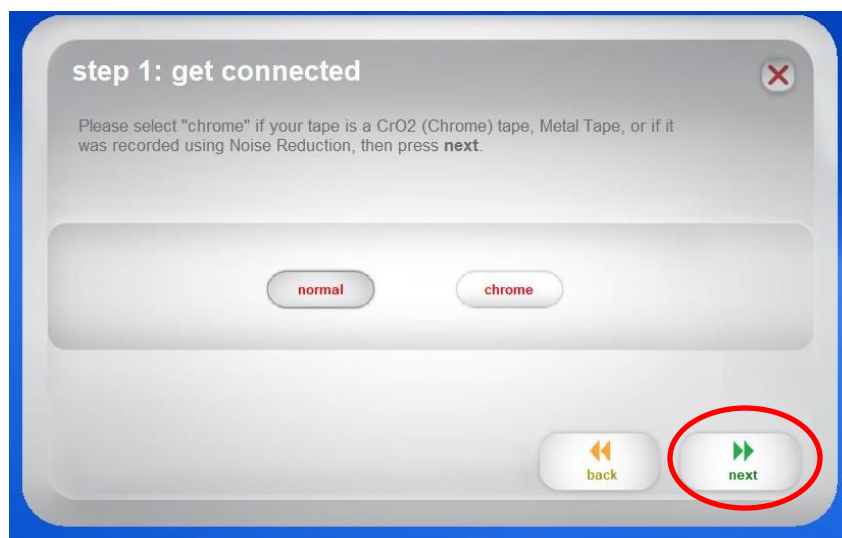
10. The Window below will open. Click NEXT to continue



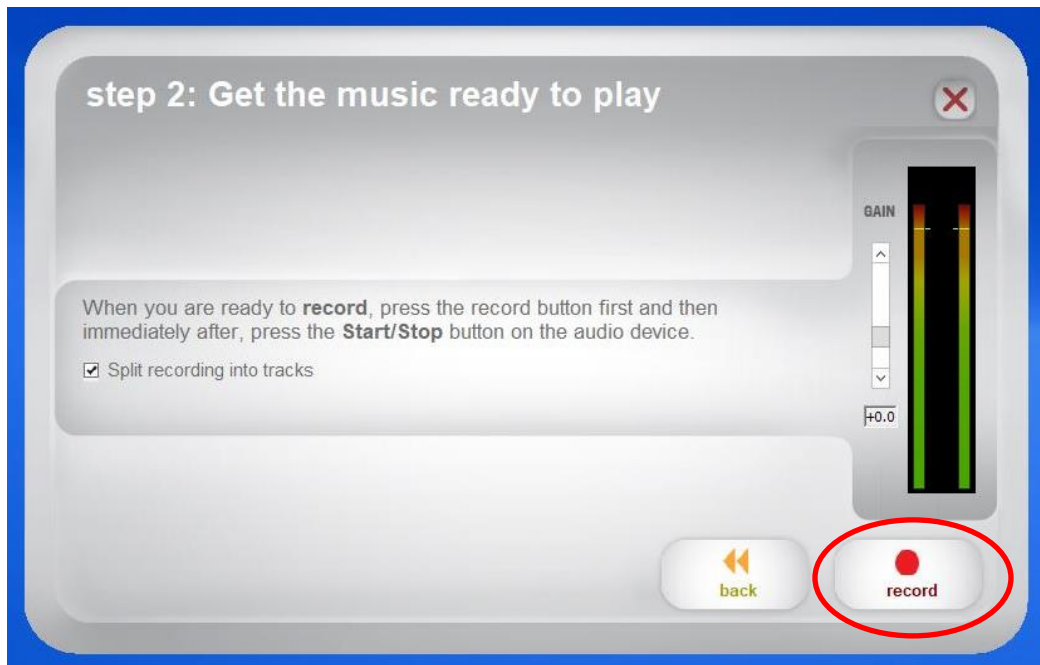
11. On the next screen, select the TAPE PLAYER option. Then click NEXT.



12. Select normal or Chrome tape depending on condition of your source cassette. Then click NEXT to continue.



13. Follow instructions on the screen to start the conversion process. Click on the RECORD button on the screen to begin the recording process, then immediately press the PLAY BUTTON on the converter to start the playback of the tape.



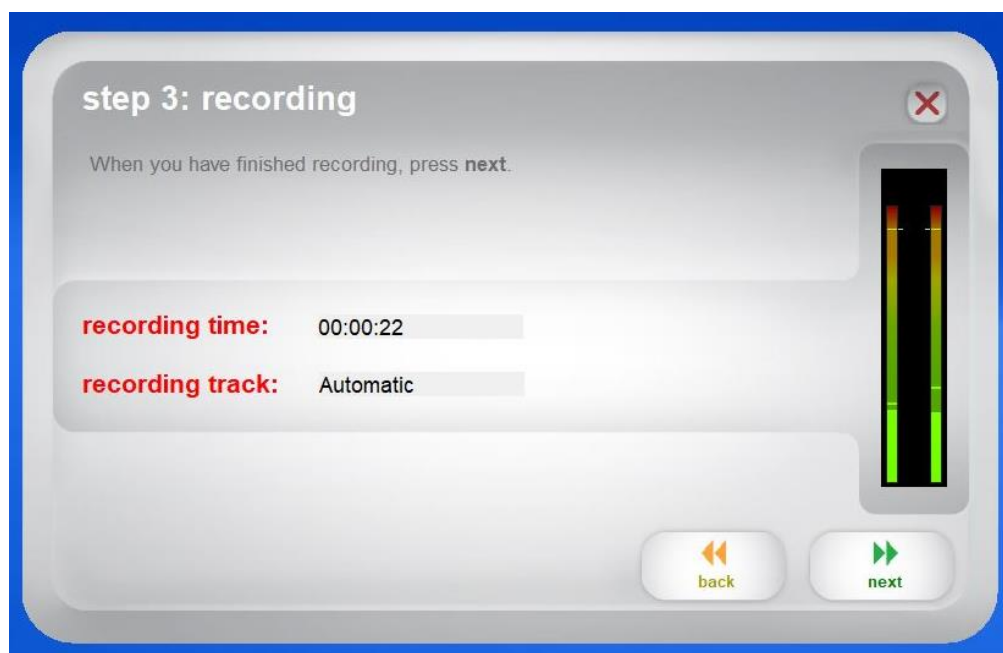
I. Click Record



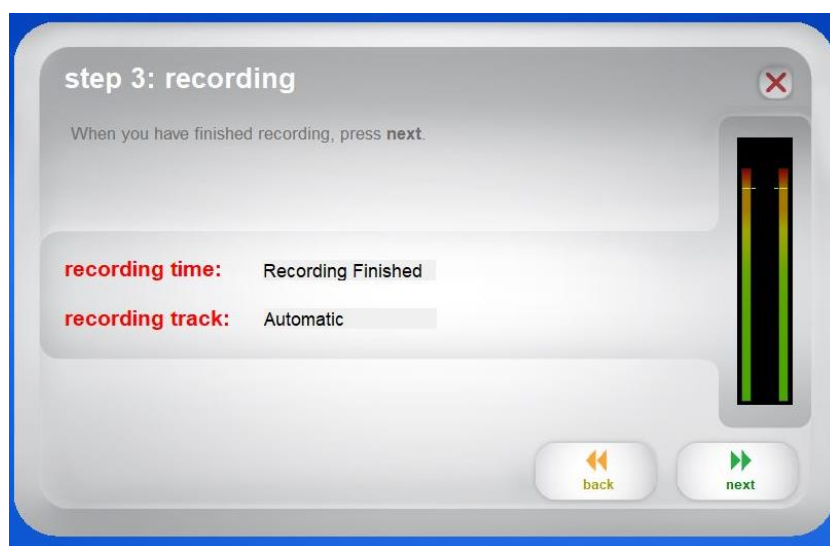
II . Then press PLAY!



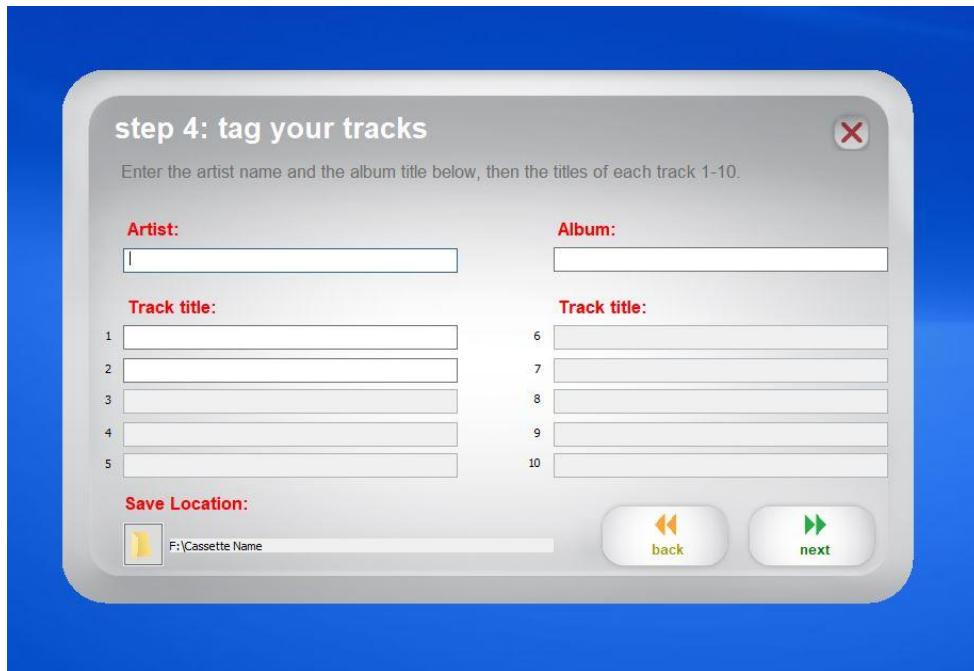
You should see the bars light up green on the screen according to the volume.



14. Your tape will be converted until it detects no more audio, or it arrives at the end of the cassette and you see the following window. Then click NEXT.



15. You now have the option to add artist, album and track name information, and to specify where to save your files. Type in the information that you want.

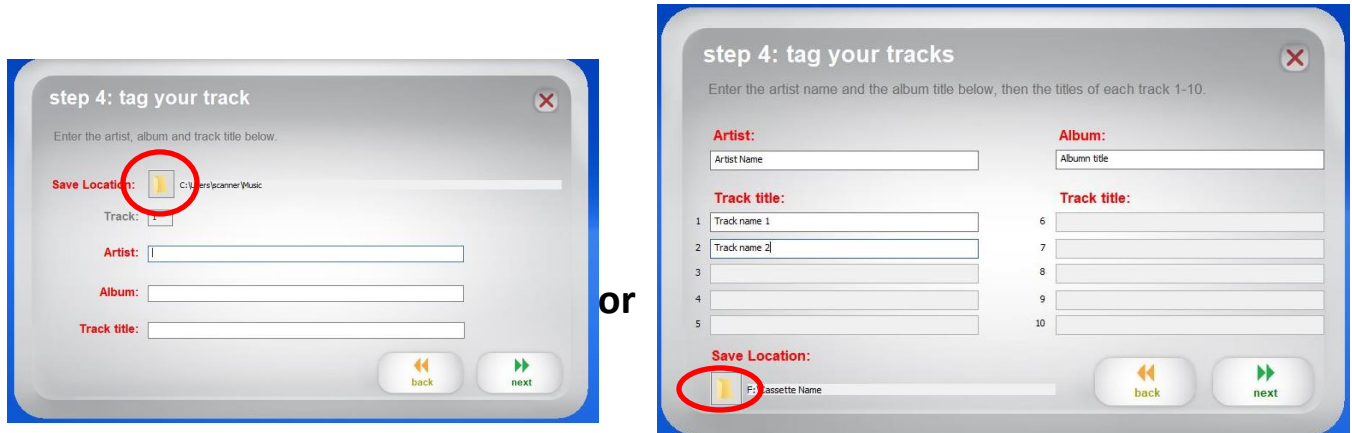


The screenshot shows a software window titled "step 4: tag your tracks" with a close button in the top right corner. Below the title is a subtitle: "Enter the artist name and the album title below, then the titles of each track 1-10." The window contains several input fields: "Artist:" and "Album:" each followed by a single-line text box. Below these are two columns of "Track title:" labels, each followed by a list of five numbered text boxes (1-5 on the left, 6-10 on the right). At the bottom left is a "Save Location:" label above a file explorer icon and a text box containing "F:\Cassette Name". At the bottom right are two buttons: "back" with a left-pointing arrow and "next" with a right-pointing arrow.

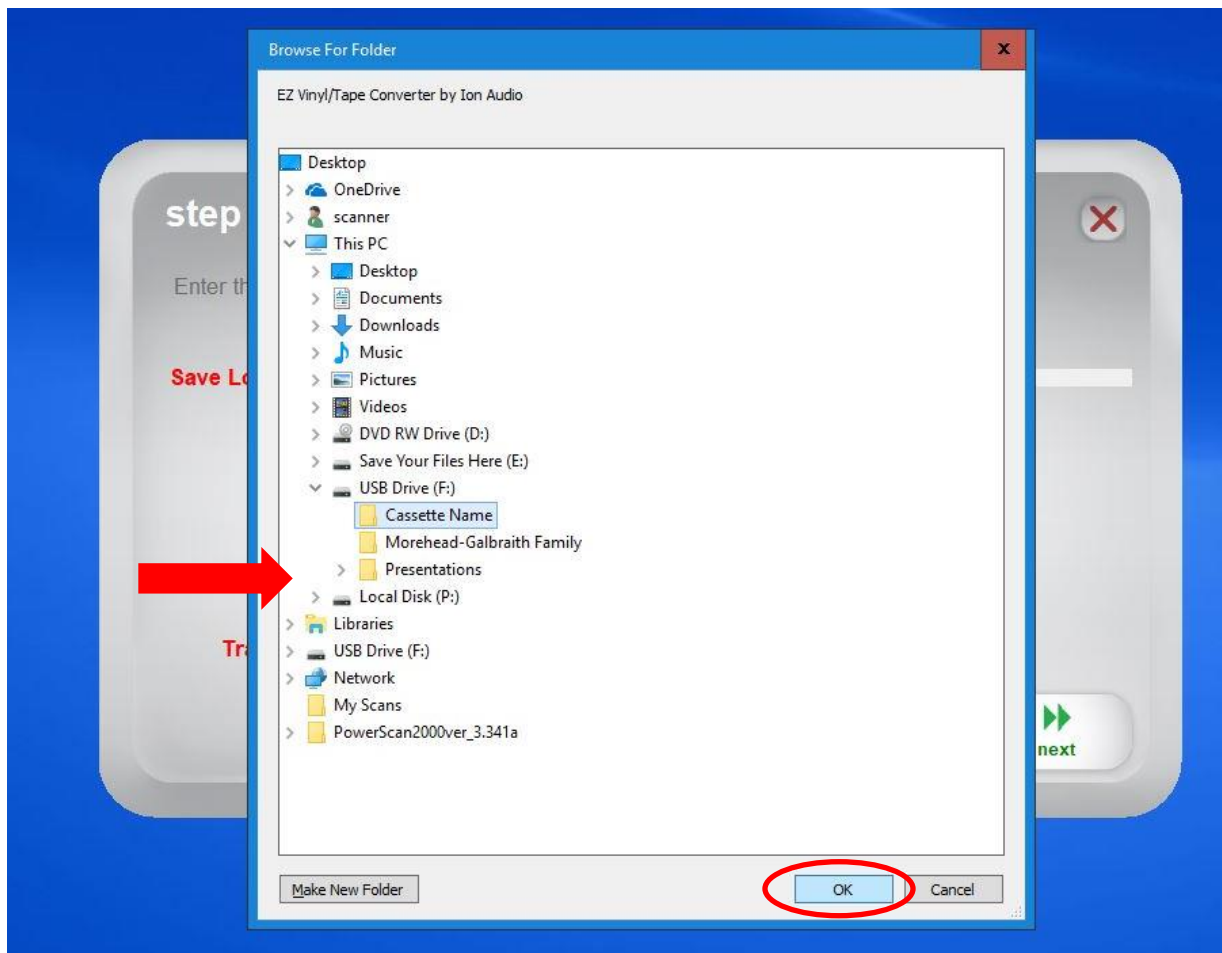
16. You now need to select where to save the files. First, Insert your USB flashdrive into the computer.



17. On the screen, click on the folder button either near the top (if saving a single file) or bottom (if saving multiple files) of the window under the section that says **SAVE LOCATION**. This will bring up a new file location window. DON'T FORGET TO DO THIS STEP FIRST OR YOU MIGHT SAVE YOUR FILES SOMEWHERE UNACCESSIBLE ON THE COMPUTER.



18. Select your USB Drive (Generally Drive F: but might also be G: or H:). If you want you can make a new folder inside of your USB drive by clicking the MAKE NEW FOLDER button. Once you have selected where to save your file click on the OK button near the bottom of the screen.



19. Click on the NEXT button. Your files will be saved.

**step 4: tag your tracks** [Close]

Enter the artist name and the album title below, then the titles of each track 1-10.

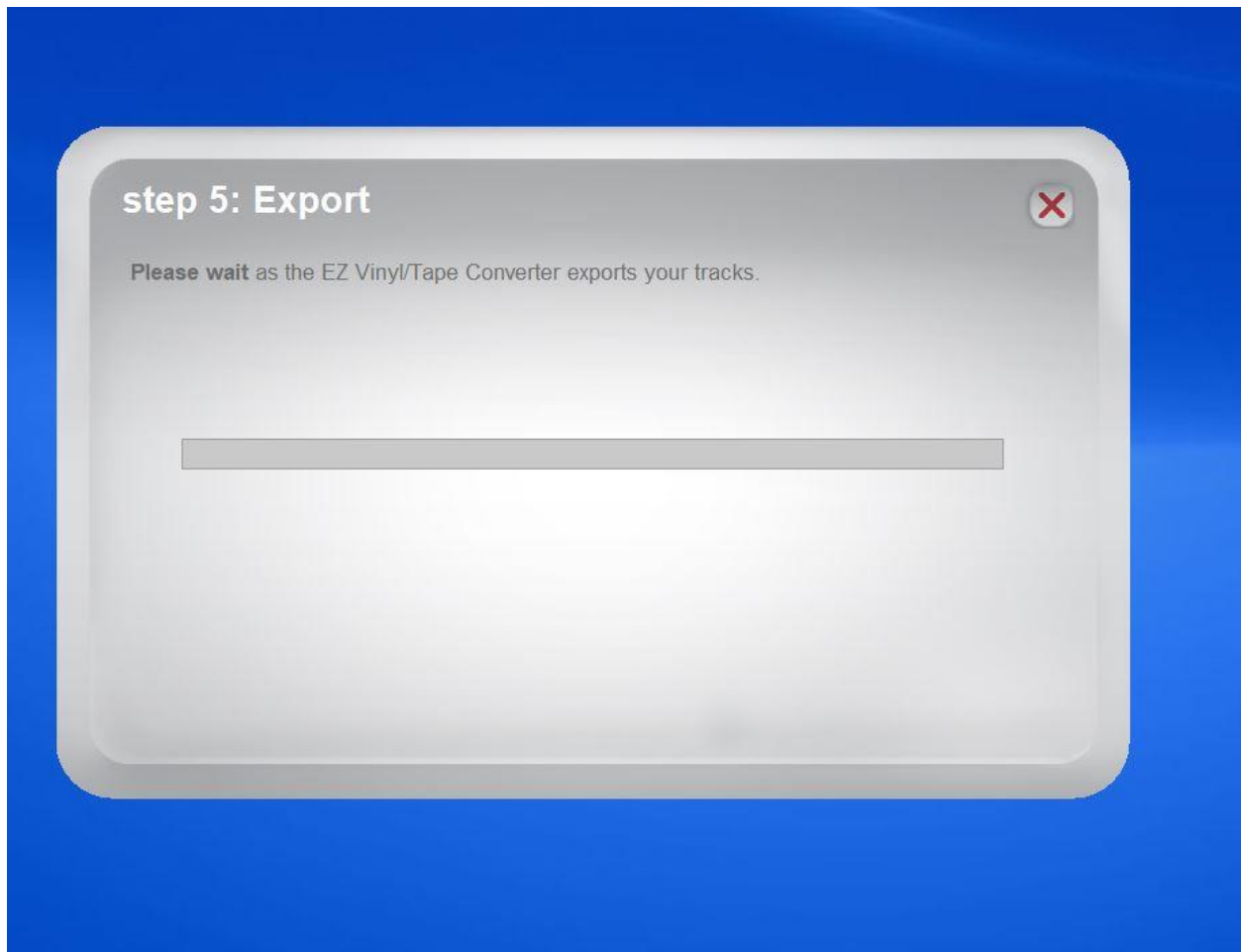
**Artist:**

**Album:**

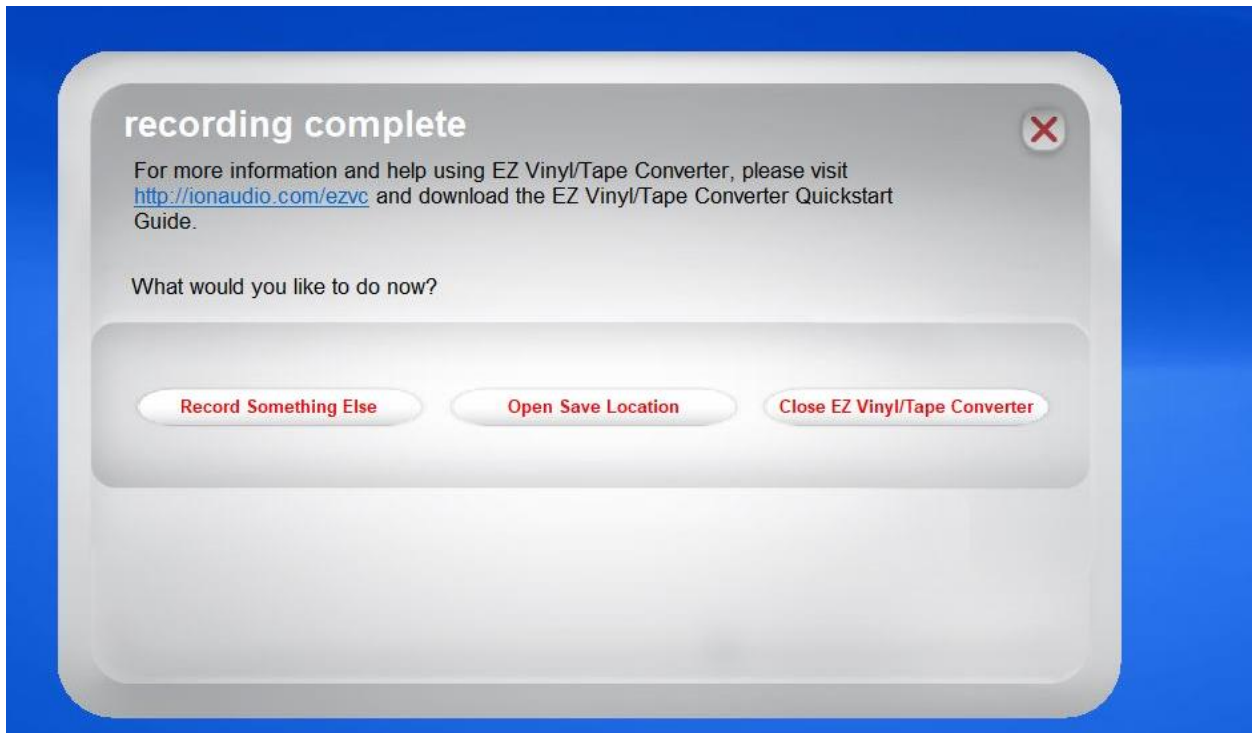
**Track title:**

1	<input type="text" value="Track name 1"/>	6	<input type="text"/>
2	<input type="text" value="Track name 2"/>	7	<input type="text"/>
3	<input type="text"/>	8	<input type="text"/>
4	<input type="text"/>	9	<input type="text"/>
5	<input type="text"/>	10	<input type="text"/>

**Save Location:**



20. A recording complete window will show. You can click on the OPEN FILE LOCATION button to verify that the files saved to your USB drive. IF you have more tapes to convert, click on RECORD SOMETHING ELSE to return to the record screen and follow the appropriate steps again. When finished click the CLOSE EZ VINYL/TAPE CONVERTER button. Be sure to take out your cassette tapes from the device. Please return the device to a staff member.



**NOTE : If you would like to burn your audio files to a CD please jump to Appendix A : Burning to a CD on page 43.**



## **ALTERNATIVE USE : USING AUDACITY SOFTWARE TO CONVERT YOUR TAPES**

For tapes that don't contain tracks (like recorded interviews) or that aren't copying easily using the EZ VINYL/TAPE CONVERTER SOFTWARE you can alternatively use the AUDACITY audio software to convert your tapes.

NOTE: This is a powerful software program that is somewhat involved to use. Please carefully read instructions before converting your tapes and ask staff for help if you still have questions.

1. Begin by inserting your USB drive into one open port of the computer and the USB chord for the ION cassette converter into another port.

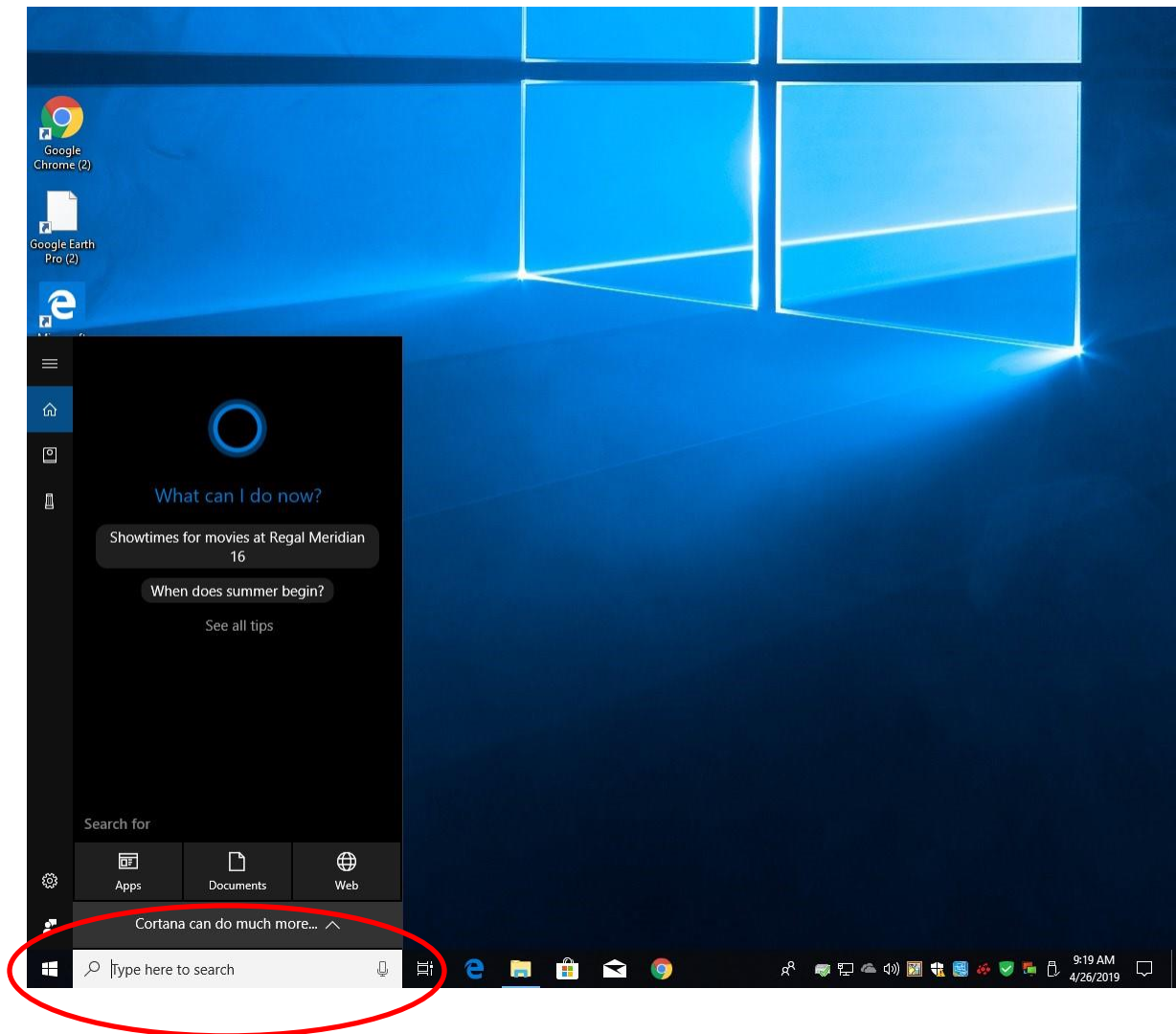


2. Insert your tape into the ION cassette converter. Close Cover.

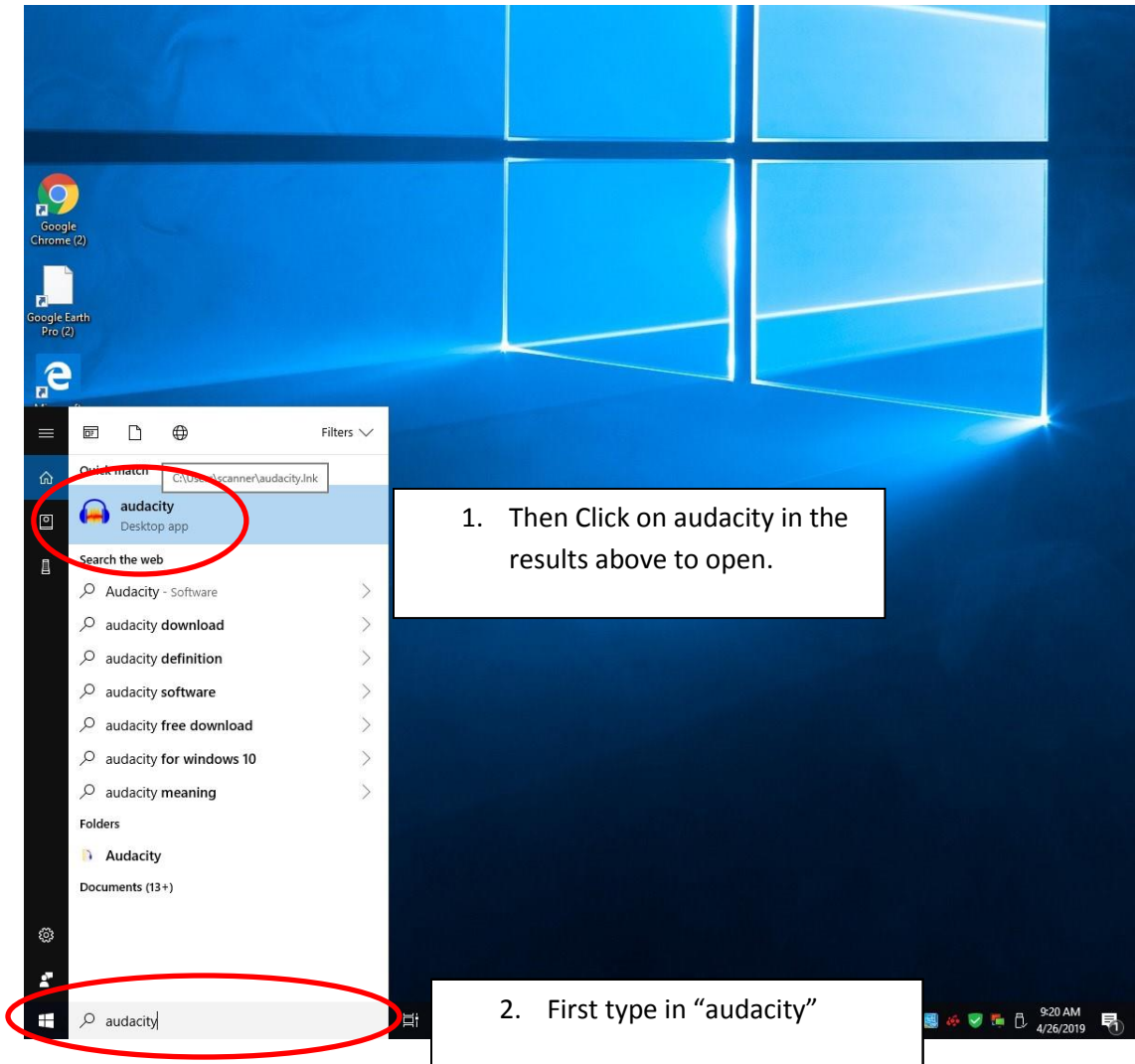


3. If needed, press the REWIND BUTTON on the ION cassette converter to rewind your tape.

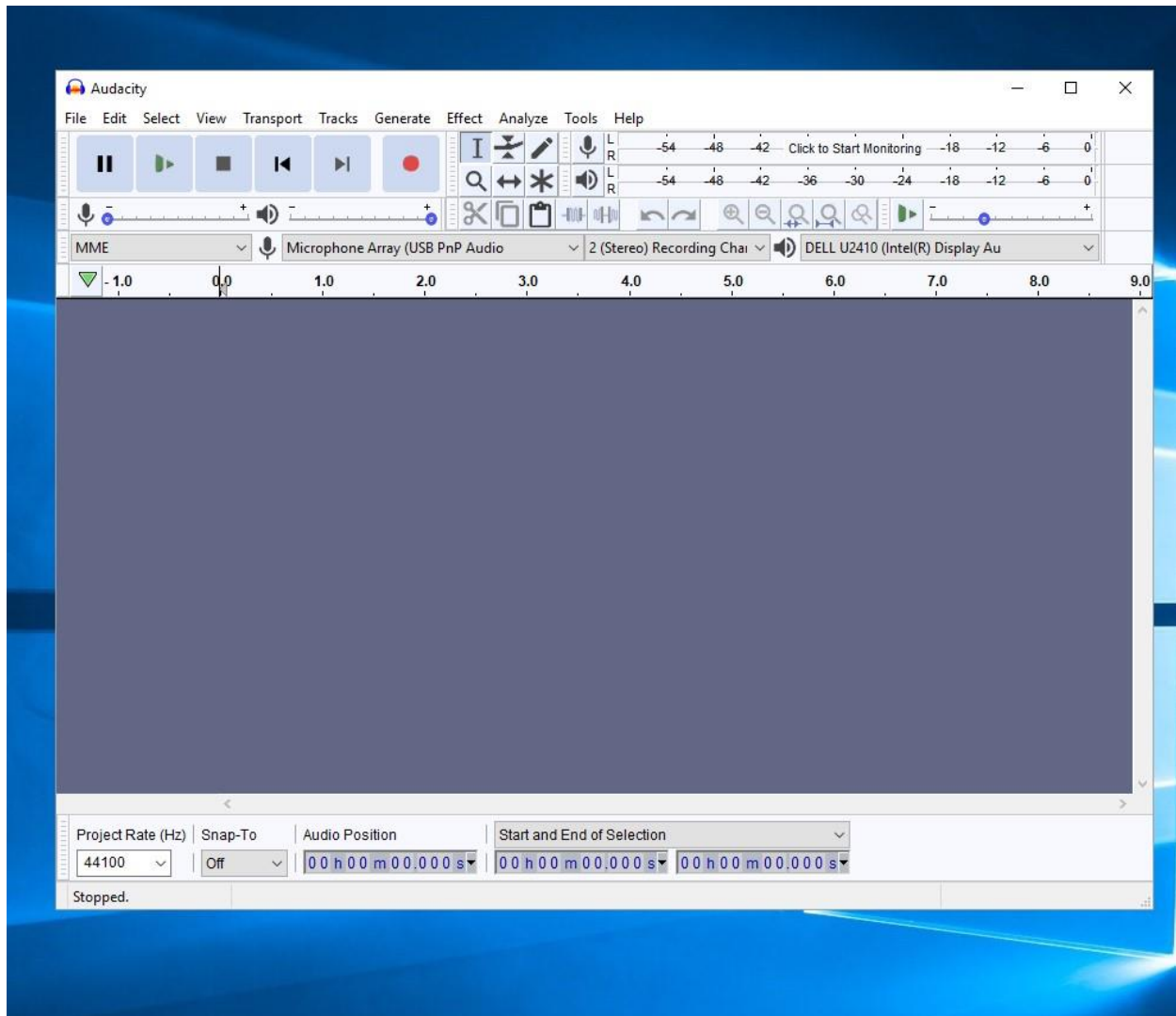
4. Next, open the AUDACITY software on the computer. To do so, click with the mouse inside of the search box near the bottom left of the screen.



5. Then, type in audacity on the keyboard. In the results above you'll see the audacity program. Left click on this with the mouse to open.

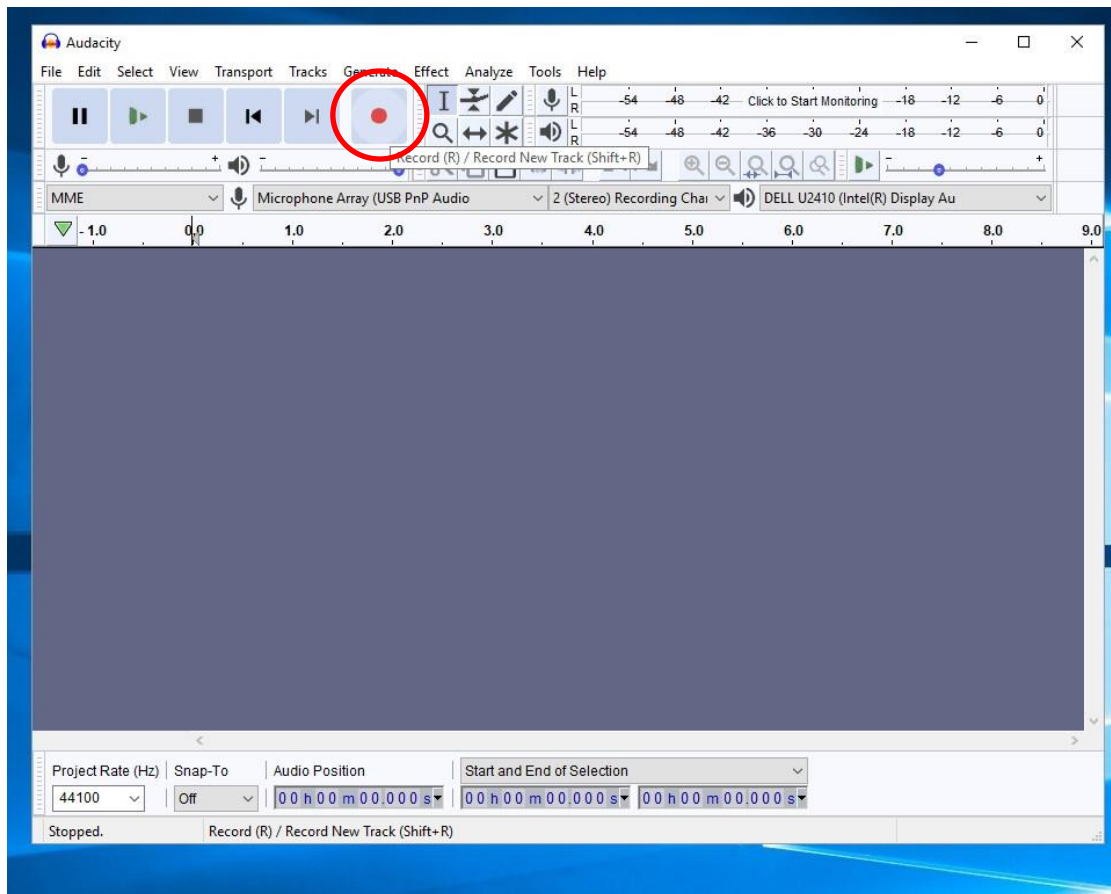


6. The Audacity software will open.

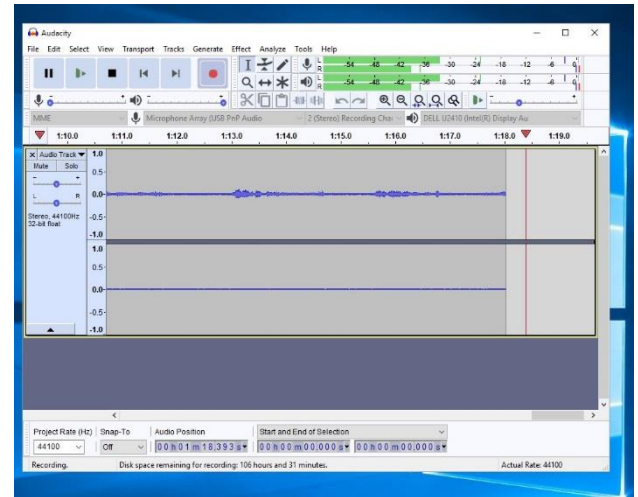
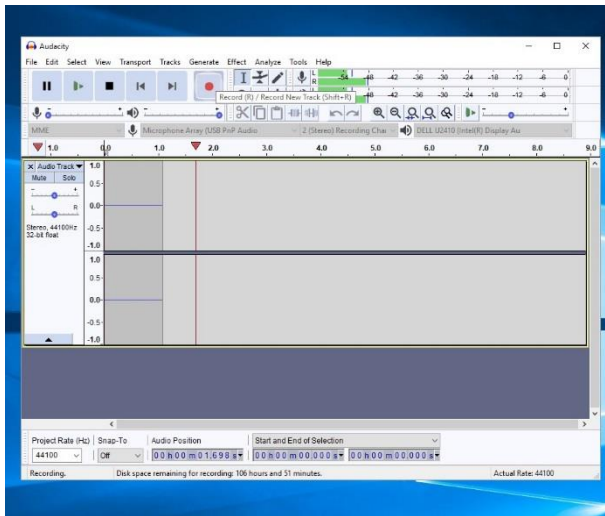




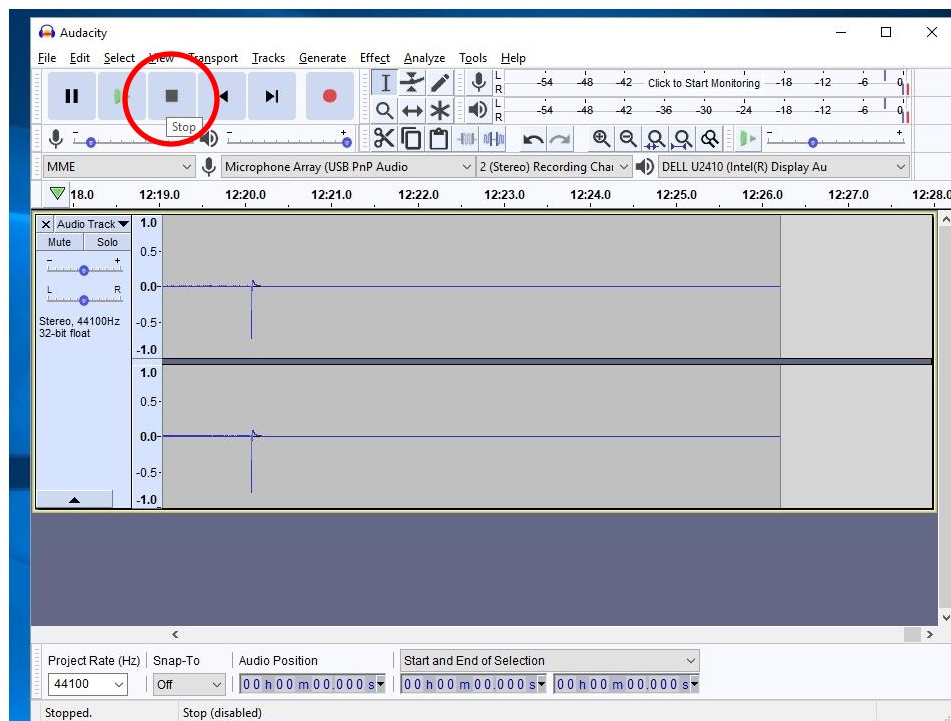
7. You are ready to begin recording. Click on the RECORD BUTTON in Audacity to start the recording process. Then immediately click the PLAY BUTTON on the Ion cassette converter to begin playback of your tape.



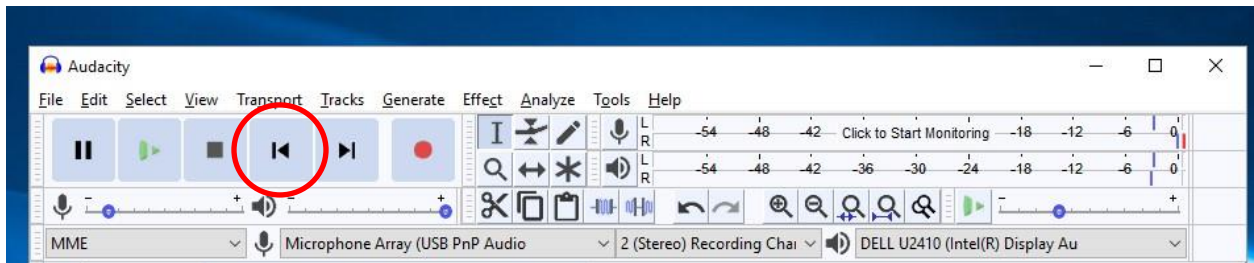
8. The software will begin recording your tape. You can follow along using the headphones plugged into the Ion Cassette Converter.



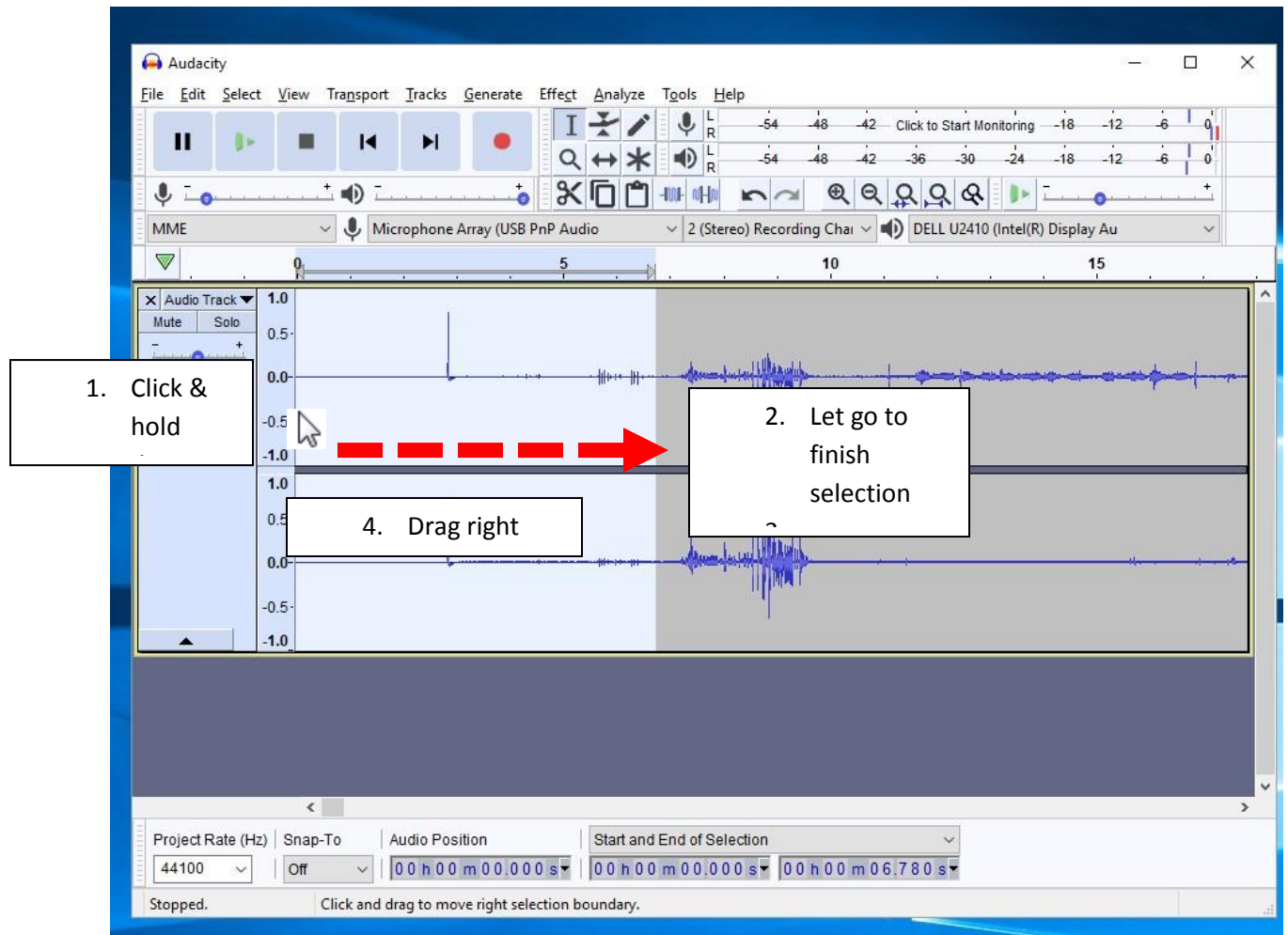
9. The software will continue to record until you click on the stop button inside of Audacity. Once you reach the end of the tape, the ION Cassette Converter will stop automatically. You should then click on the STOP button in Audacity to stop recording.



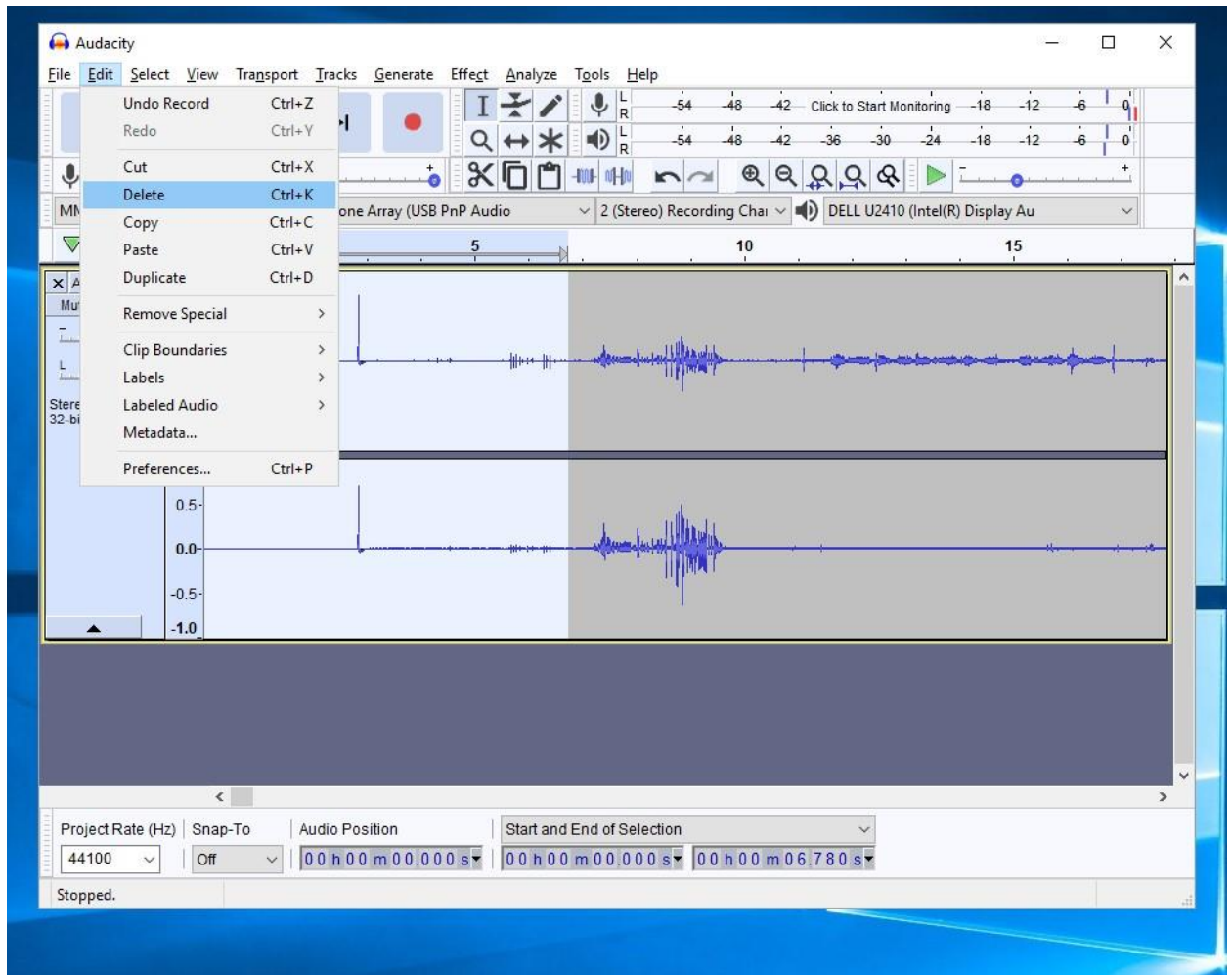
10. You next will want to clean up the silences at the start and end of the recording. To jump to the front of the recording click on the left arrow button.



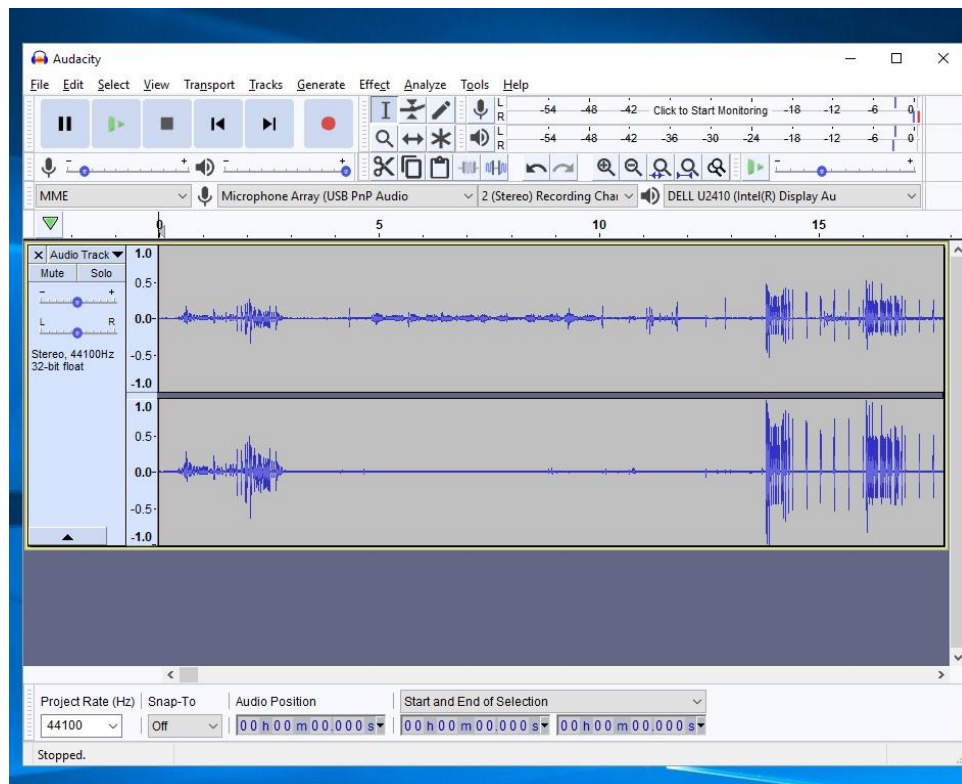
11. Once at the front of the recording, click inside of where the soundwaves are drag to select the portion the line is flat (no sound here).



12. Once selected you can press the DELETE key on the keyboard, or go to the top menu under **EDIT** and select '**Delete**'.

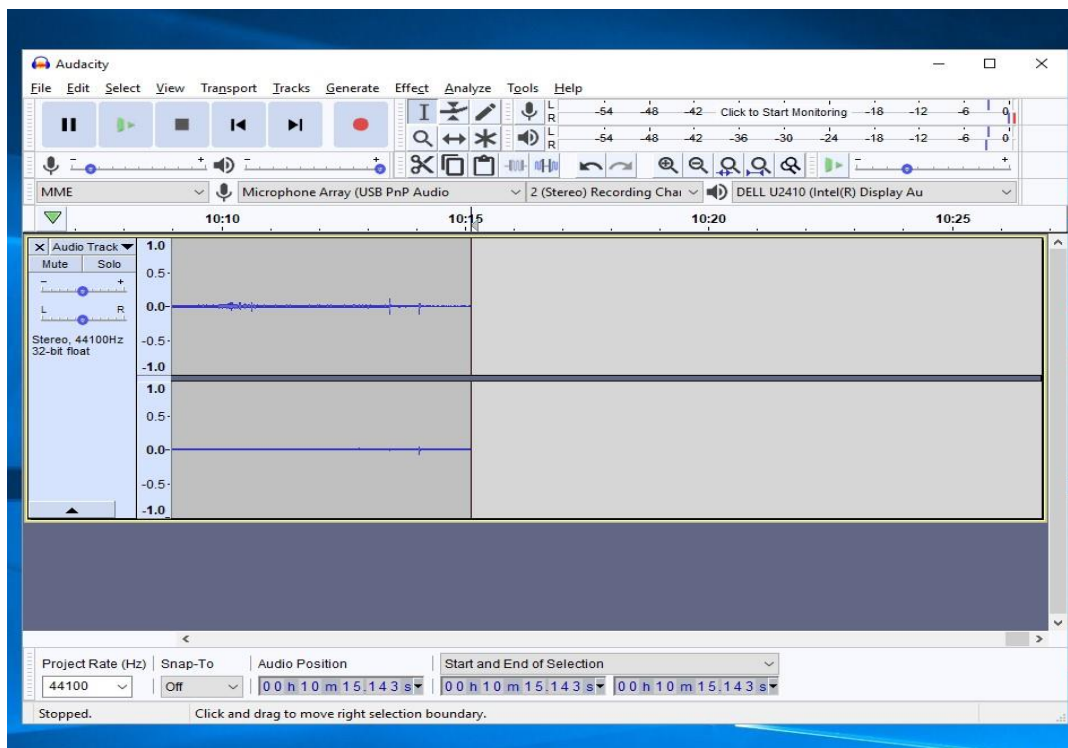
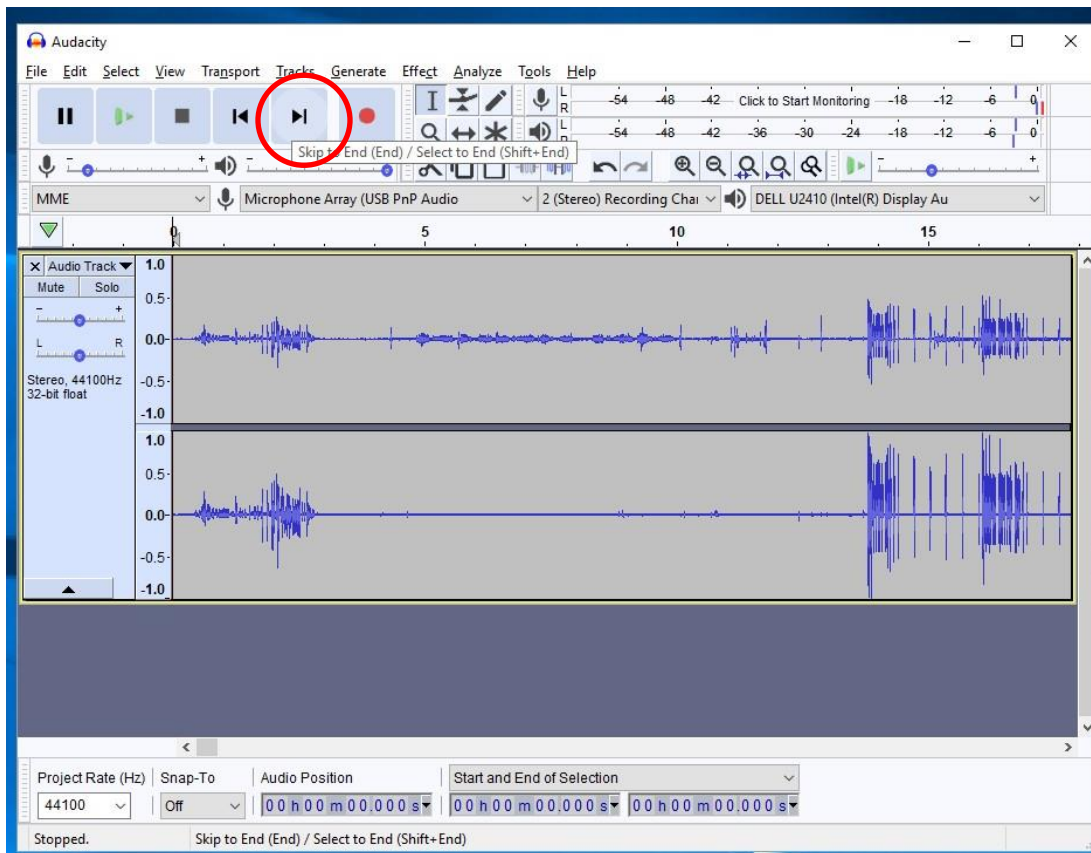


The selected section is deleted.



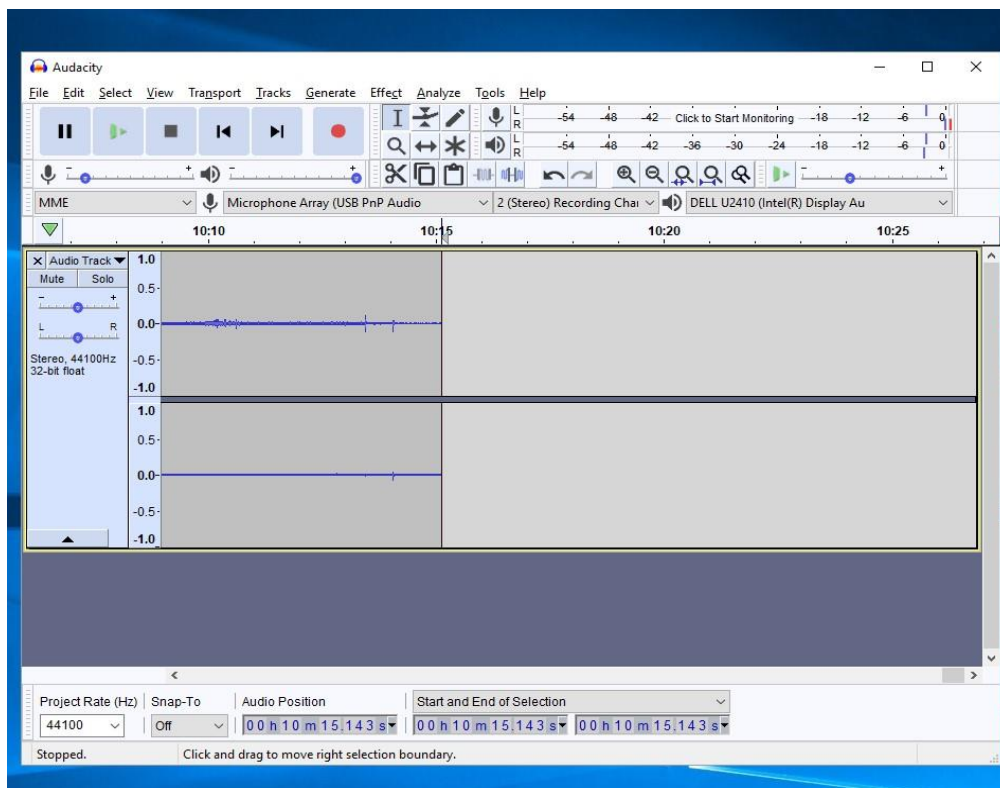
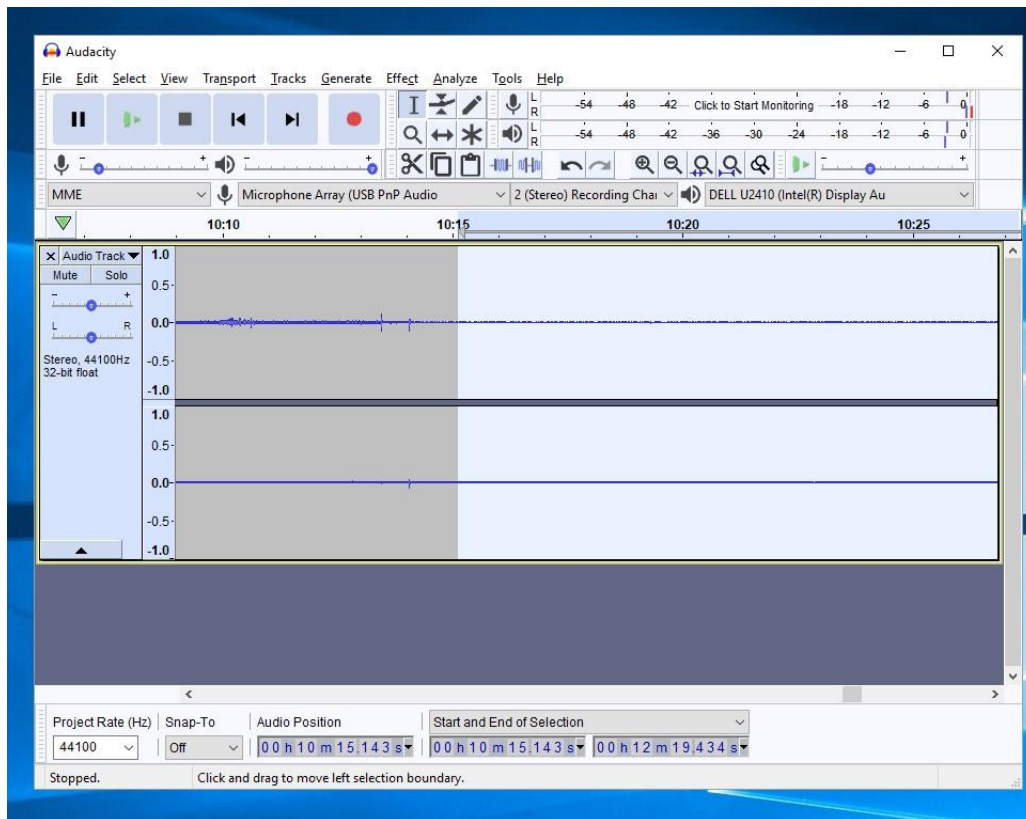


13. You can then jump back to the end and do the same to clean up silence at the end of recording. Click the Right ARROW button to skip to the end.





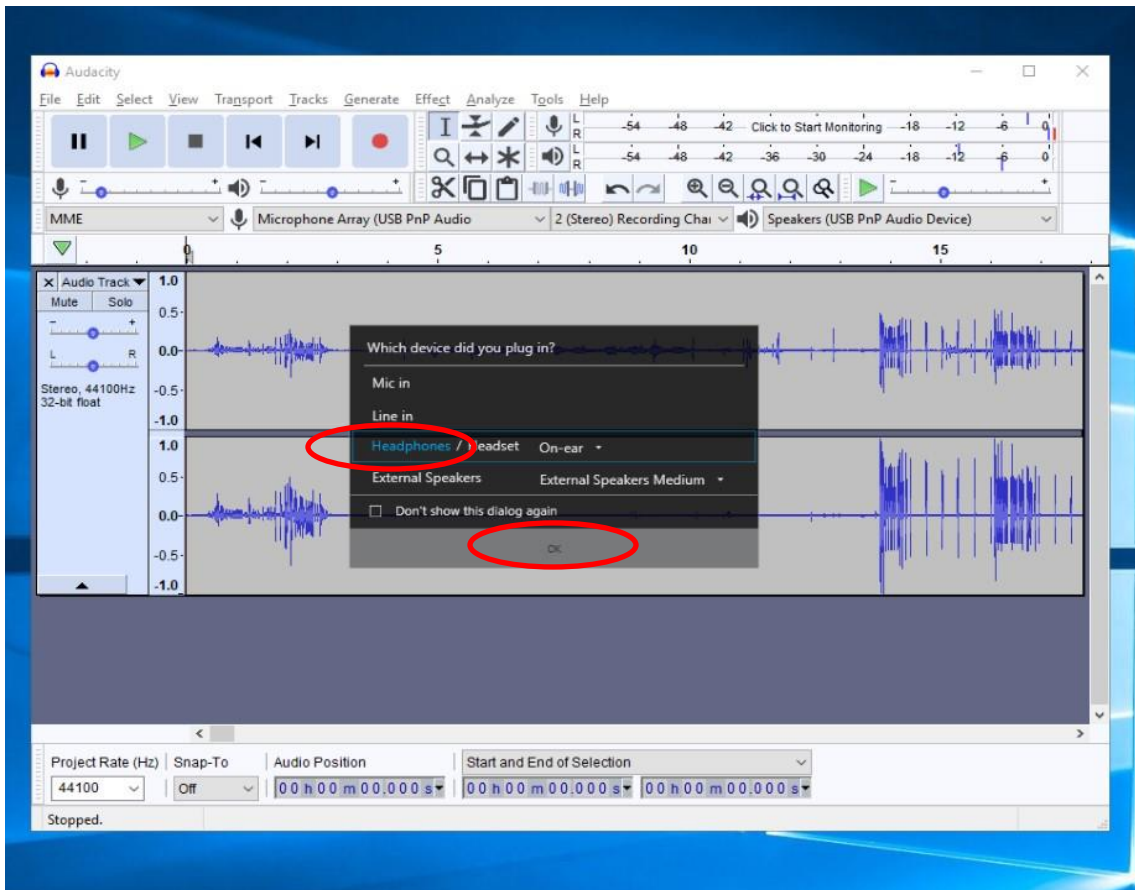
14. Select the section you want to delete at the end by left clicking in the soundwave window and while holding down drag the cursor to the right. Once you have selected the portion to delete, press the DELETE key on the keyboard, or go to “edit” in the top menu and select **Delete**.



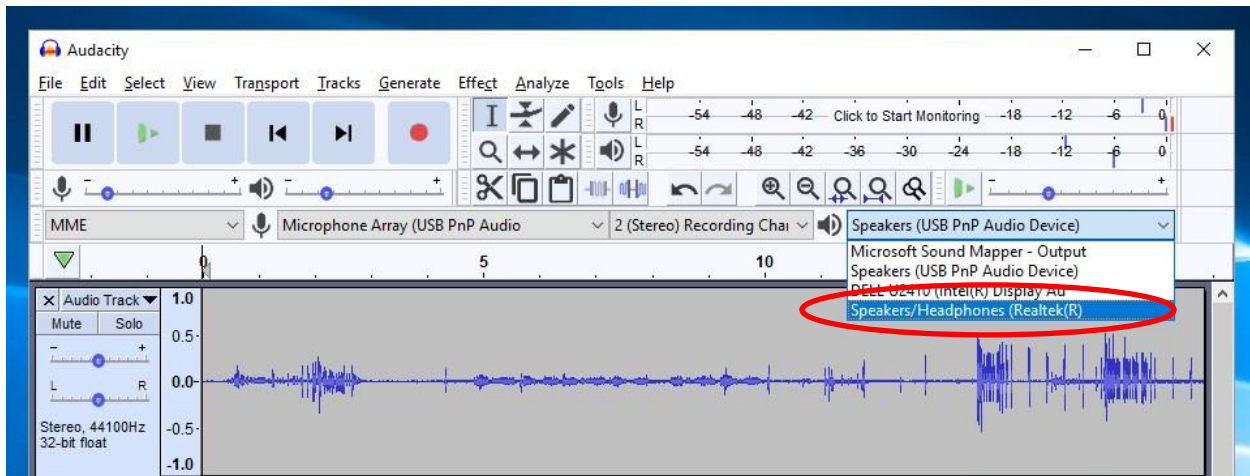
15. You'll next want to verify the quality of the recording, and if needed, do a bit of sound processing to clean up the sound. In order to listen to the recording you'll need to set up the headphones thru the computer. First unplug the headphones from the Ion Cassette Converter and plug them into the audio jack at the front of the PC unit.



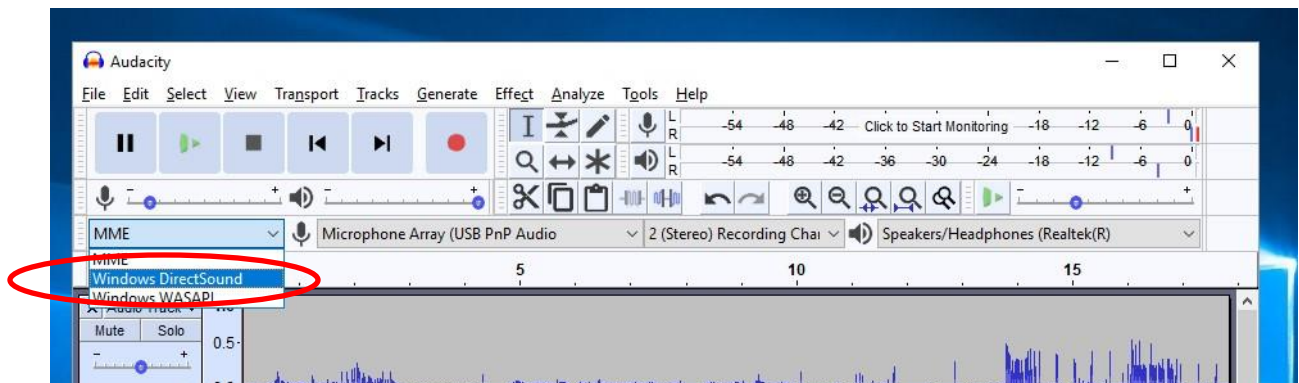
16. Once you plug in the headphones you'll see the window below pop up on the screen. Select the headphones option, then click OK in the small window.




17. Next, you will need to adjust the playback setting inside of Audacity and Windows 10. Under click on the playback dropdown menu where is say “**Speakers (USB PnP Audio Device)**”, and change the selection to “**Speakers/ Headphones (Realtek(R))**”



18. Then under the sound driver dropdown menu, click on “**MME**” and change the selection to “**Windows Direct Sound**”

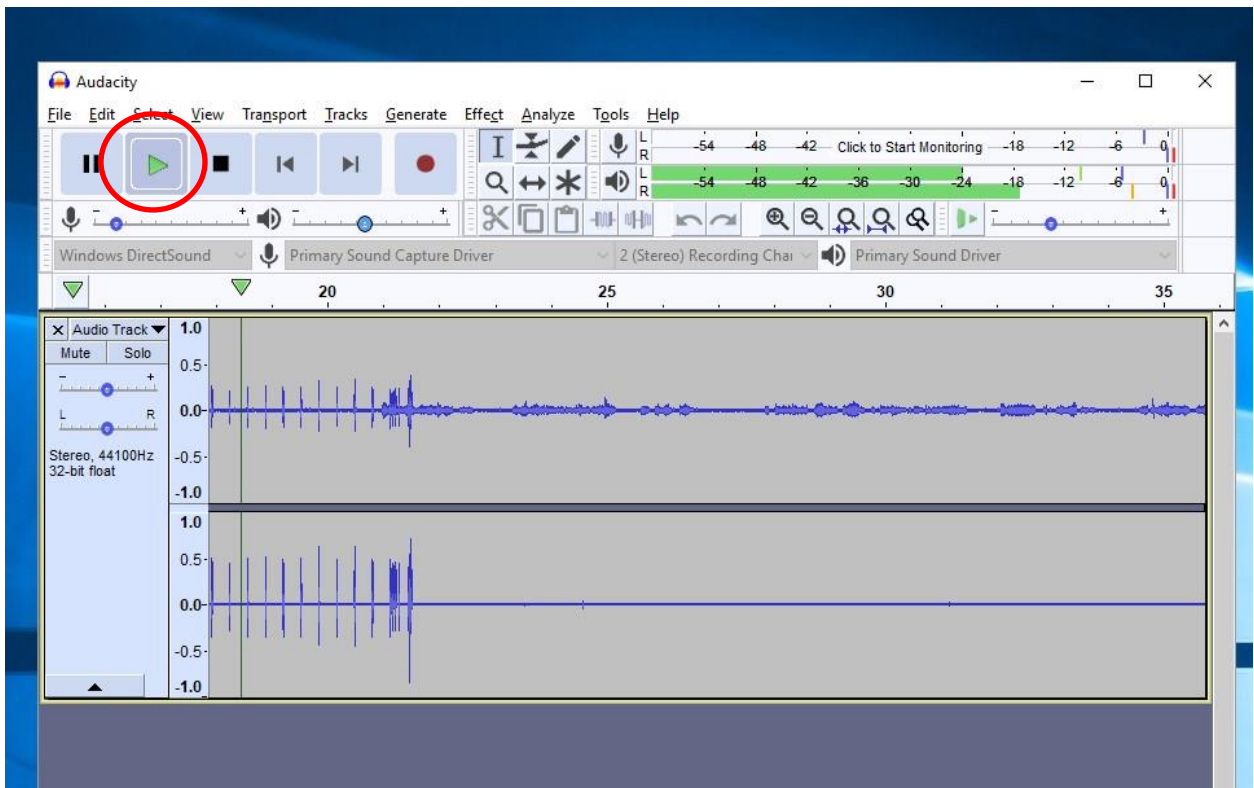


19. Lastly, at the bottom of the computer window you'll see a speaker icon . Click on it to bring up the system sound bar. Click where it says "**Speakers (USB PnP Audio Device)**", and change the selection to "**Speakers/ Headphones (Realtek(R))**"





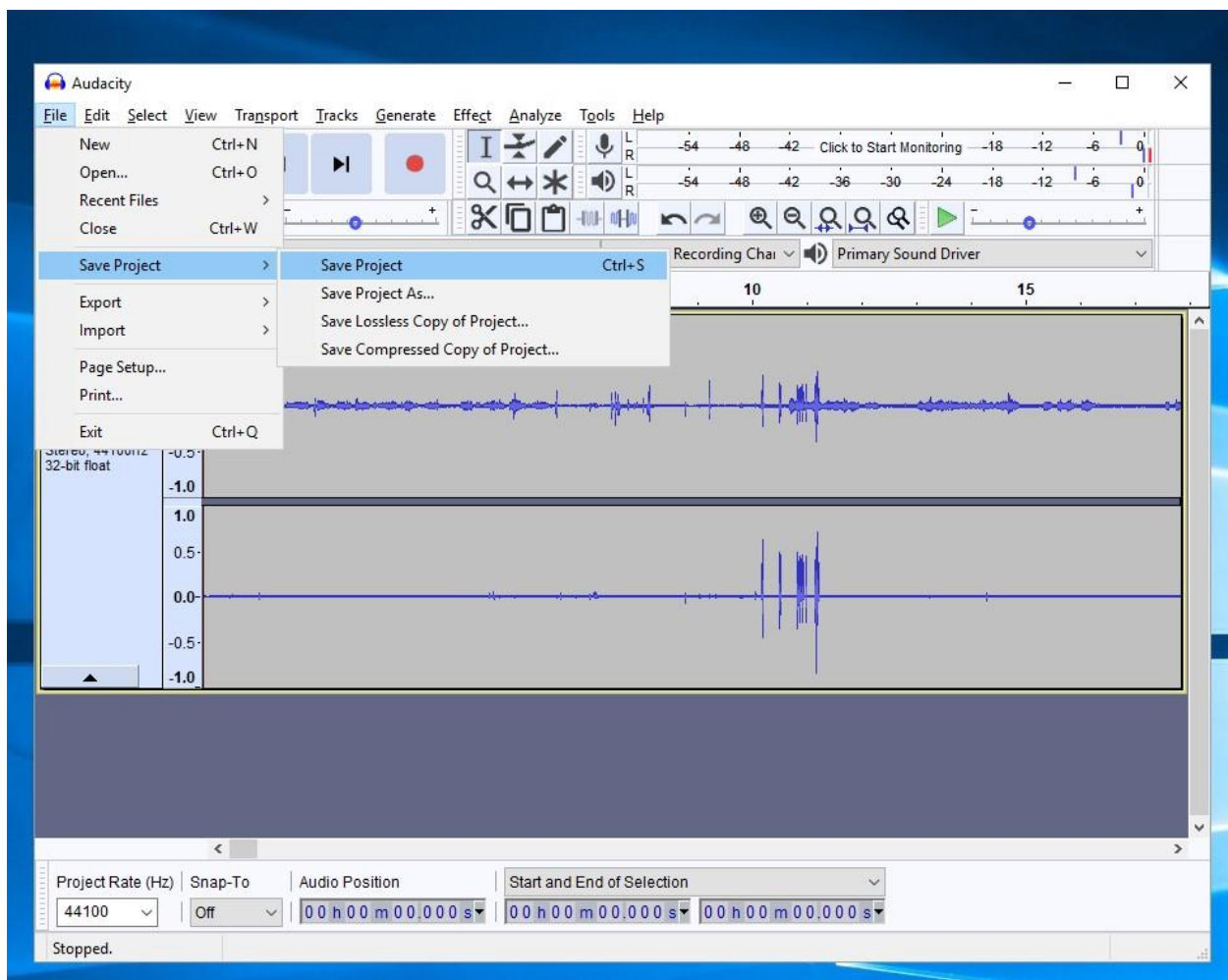
20. You are now able to listen to the recording. To do so, click jump back to the start of the audio file pressing the LEFT Arrow button.  Then press the green Arrow button to start playback.



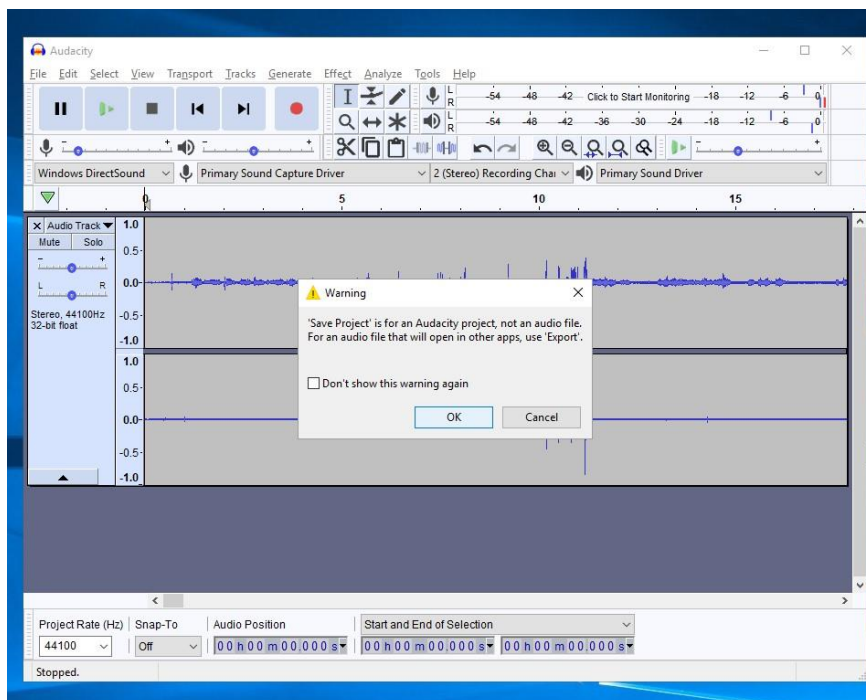
21. Check for audio quality. If the records seem faint or there is a lot of background noises, you'll want to normalize the audio file.

**NOTE : BEFORE editing the audio it's strongly encouraged that you save the raw audio in case the changes make the recording worse. Keep the raw .aud audacity file until you get the sound that you want!**

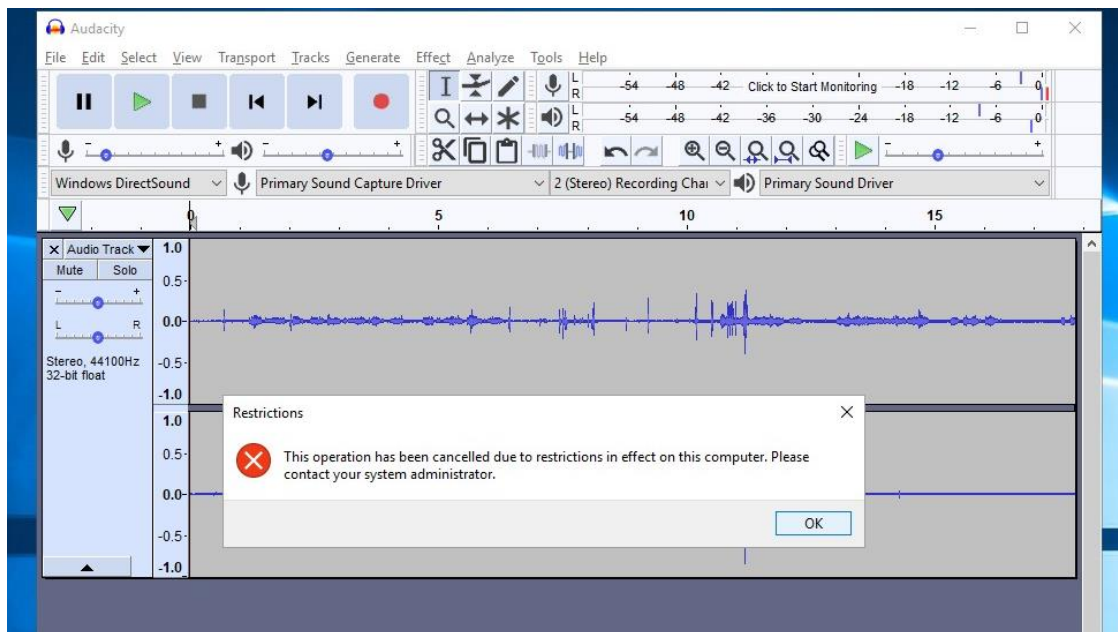
To save your audio file, Click on the File menu at the top of the Audacity window, select **Save Project**, and then **Save Project**.



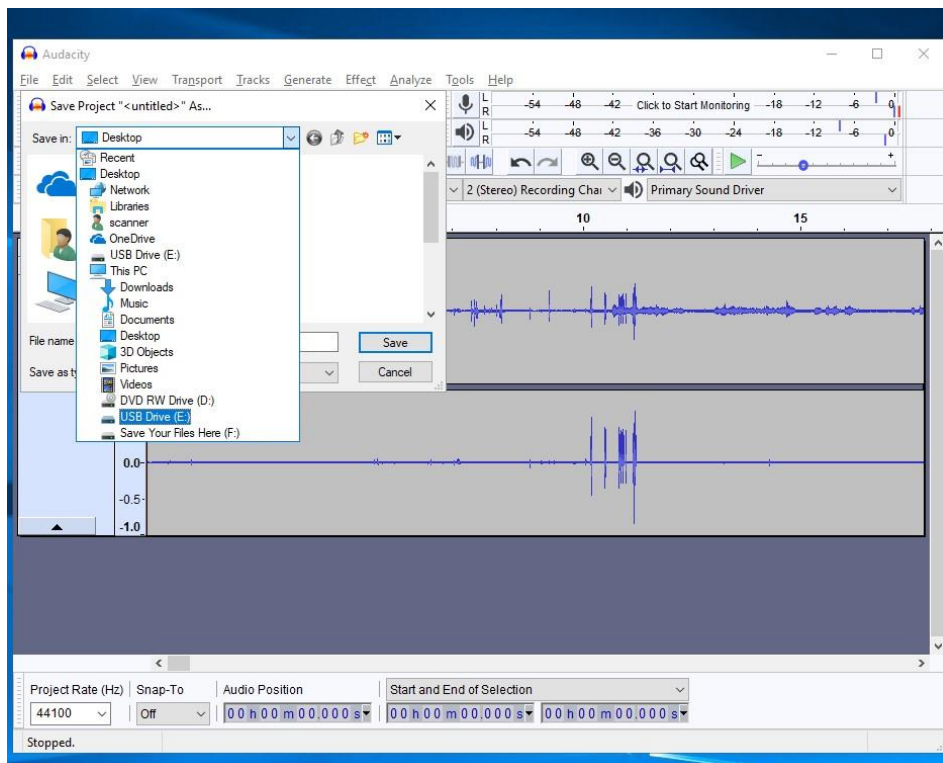
22. A warning will pop up. Click Ok to continue.



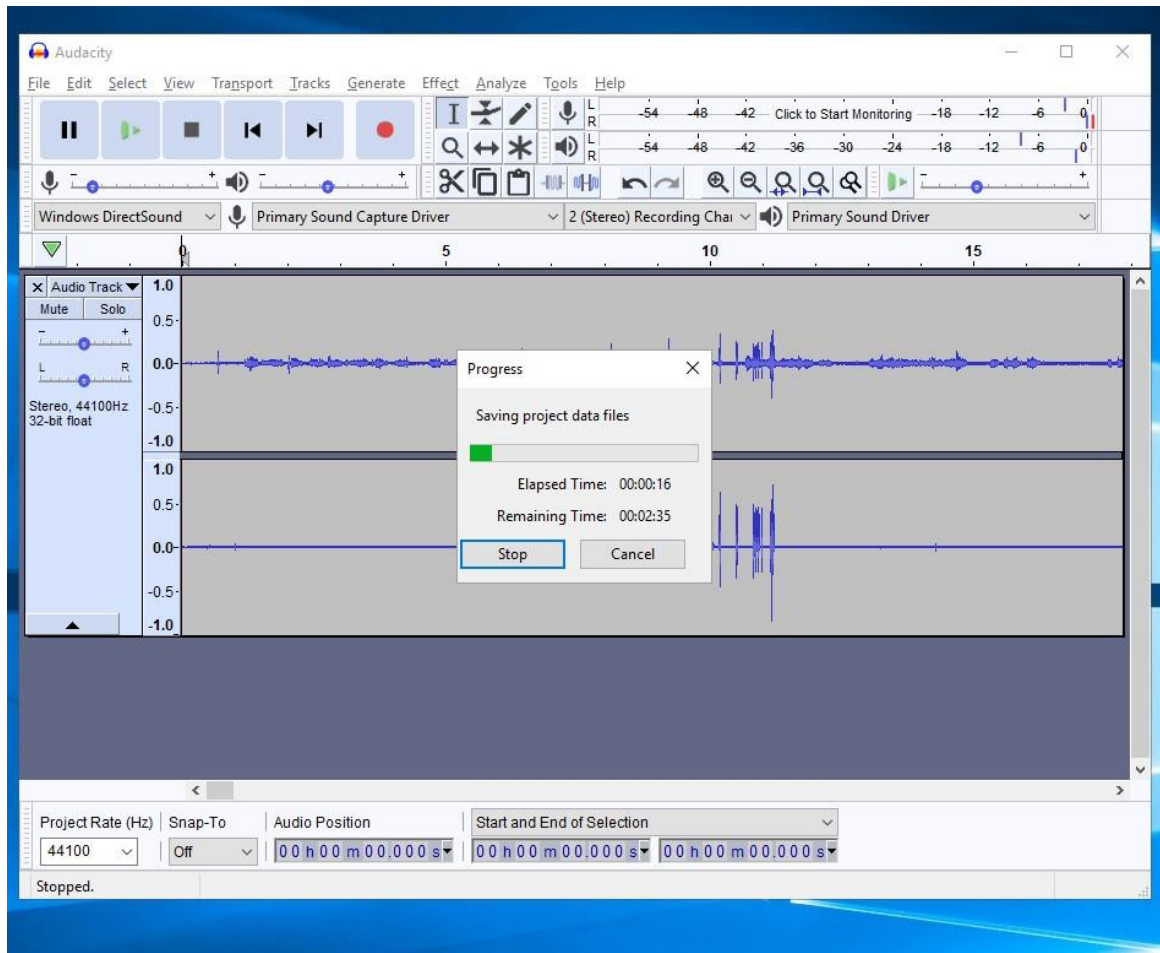
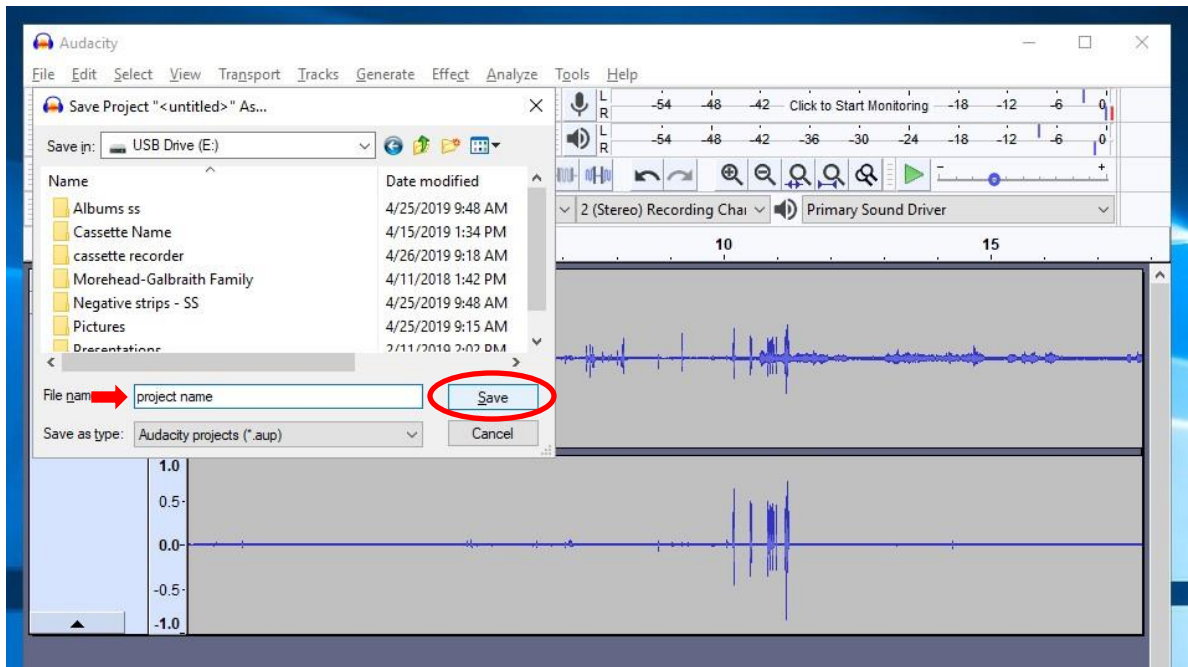
23. Due to the IT firewall you might see the following restriction. Just click OK to continue.



24. The save window finally opens. Click in the SAVE AS dropdown menu and select where you would like to save your raw file. The two best choices are you USB drive, or the public drive on the computer **"Save your files here (F:)"**



25. Once you select where to save the raw .aud file, give it a file name and click the Save button to save.

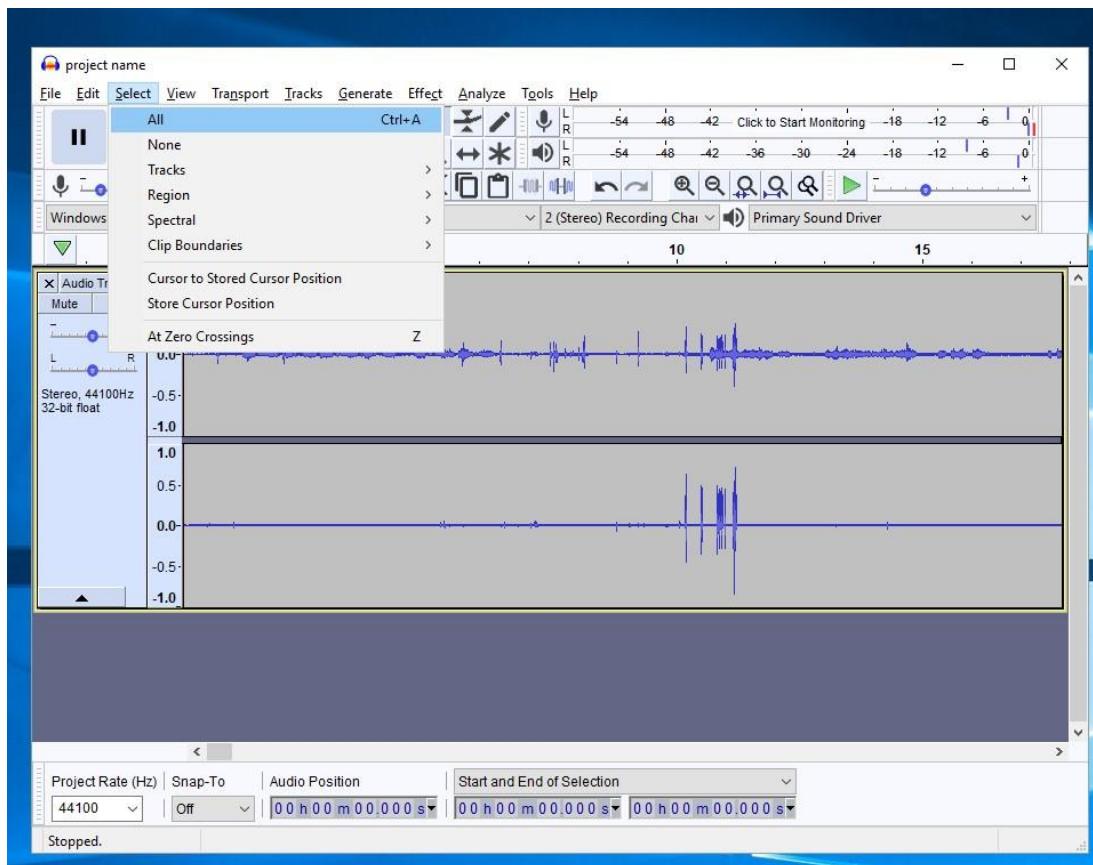


26. With your raw audio saved you are now ready to do some post-processing of the sound there are a few option available.

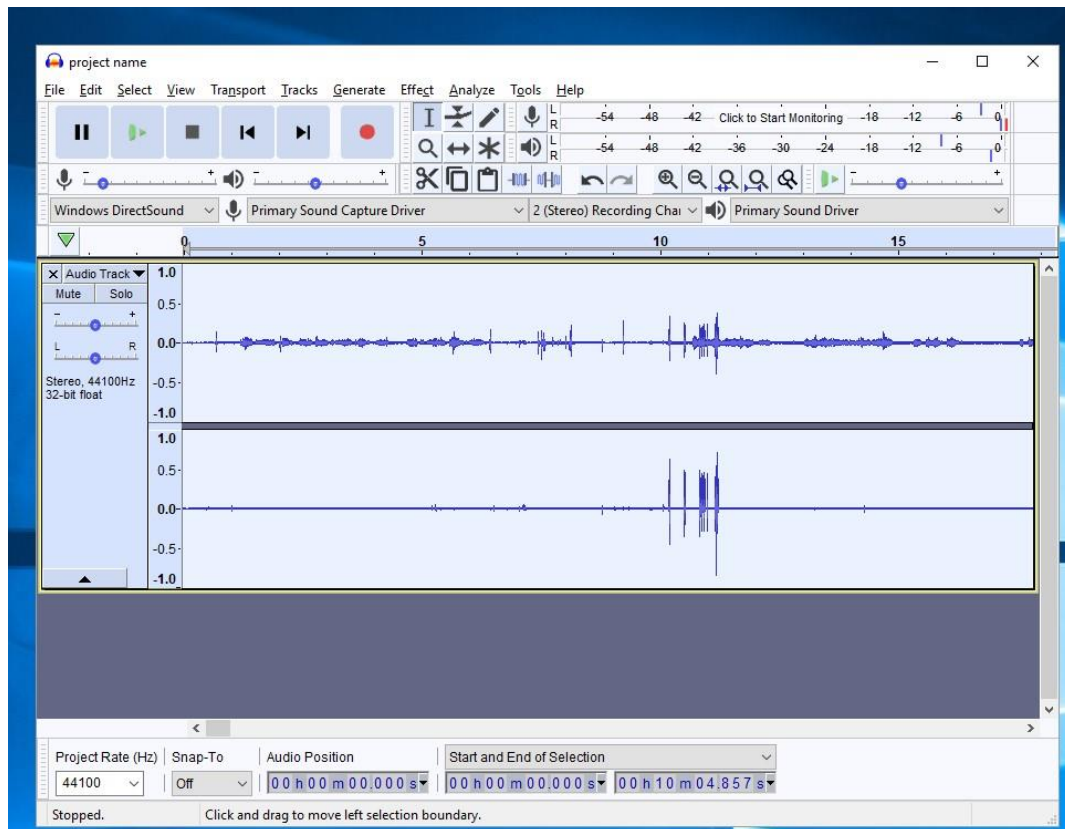
**NORMALIZE:** Using this effect changes the peak amplitude for the recording to a set level (generally -1.0 or 0.0 db). This means that louder portions and softer portions of the tracks will sound the same. Good if you are converting an audio recording of an interview, and sometimes the speaker is speaking louder or softer throughout the recording. The Normalize effect will also remove clicks that appear due to mechanical interference in the recording if the Remove DC offset box is checked (recommended).

**Amplify:** This effect raises or lowers the maximum amplitude for the recording selection. If the whole recording is too soft, you can use this to increase the sound. NOTE that background noises and clicks also get amplified as well.

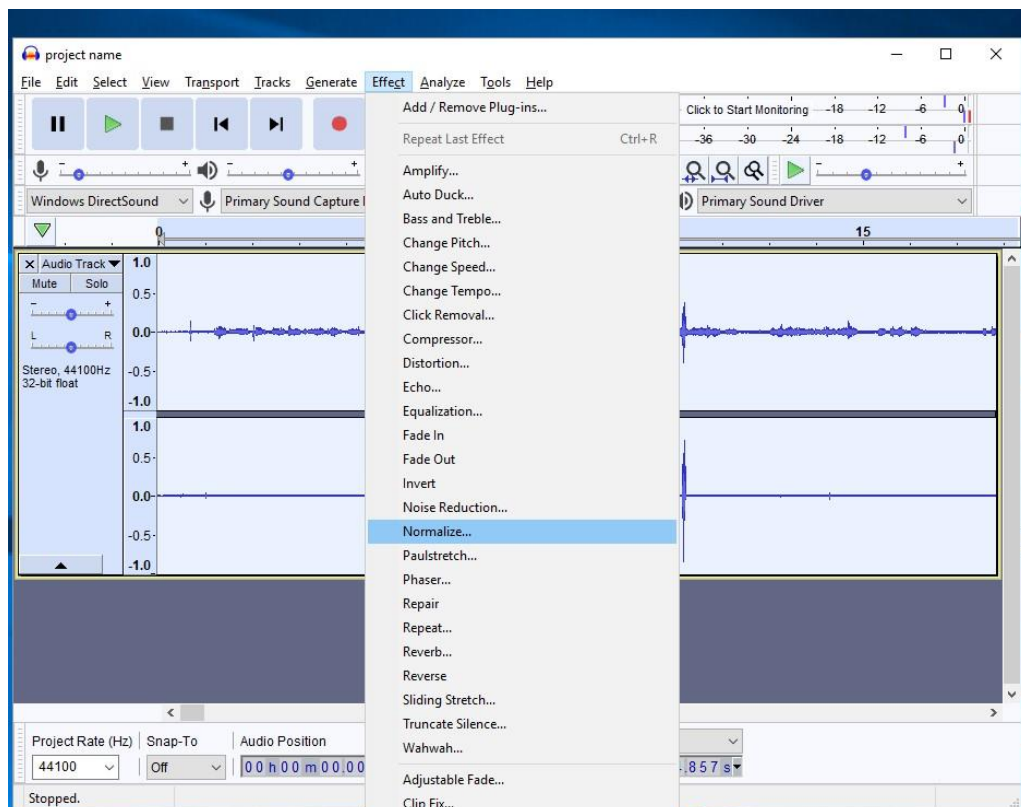
27. For the example in this guide, we'd like to normalize the track. To do so, first go up to the top menu and choose **SELECT**. Then under the menu click **All** to select your entire track.





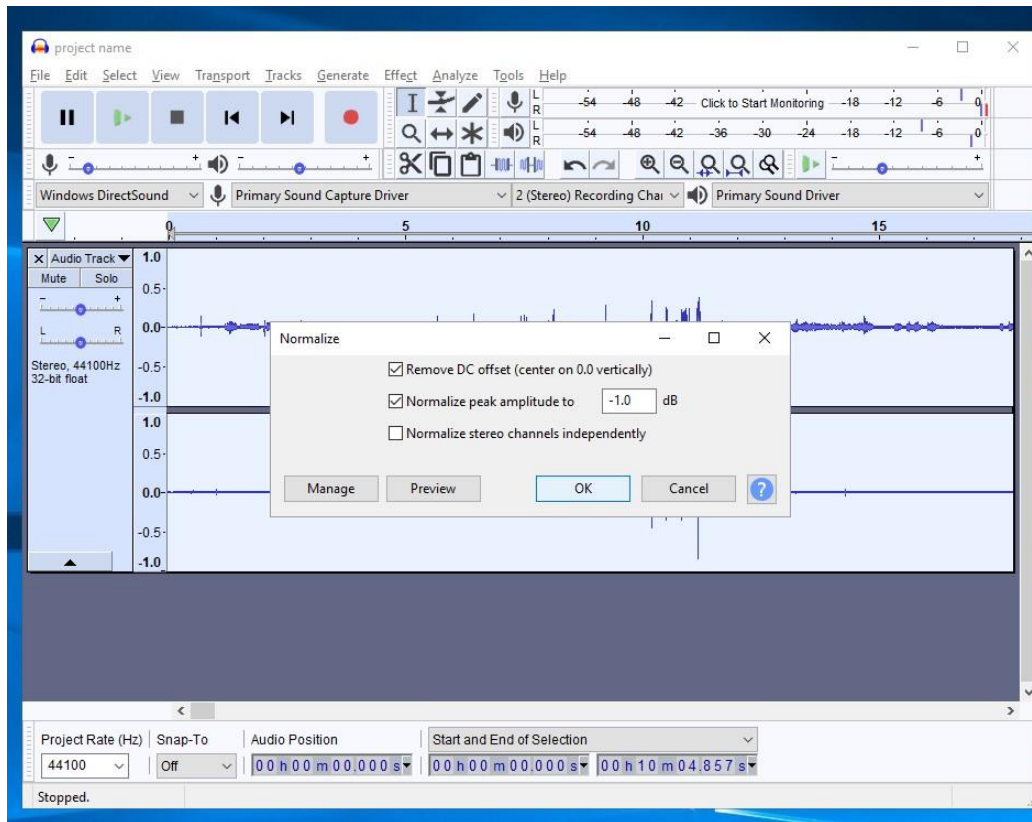


28. With the track selected next click on **EFFECT** in the top menu, and select **NORMALIZE**.

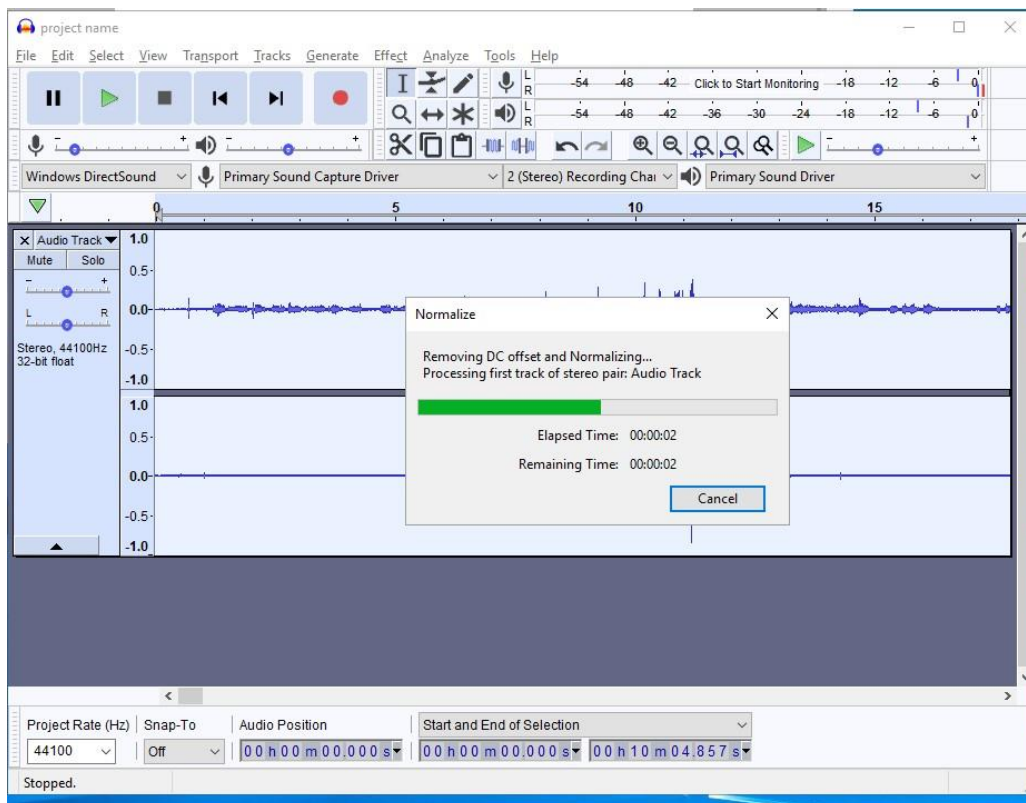




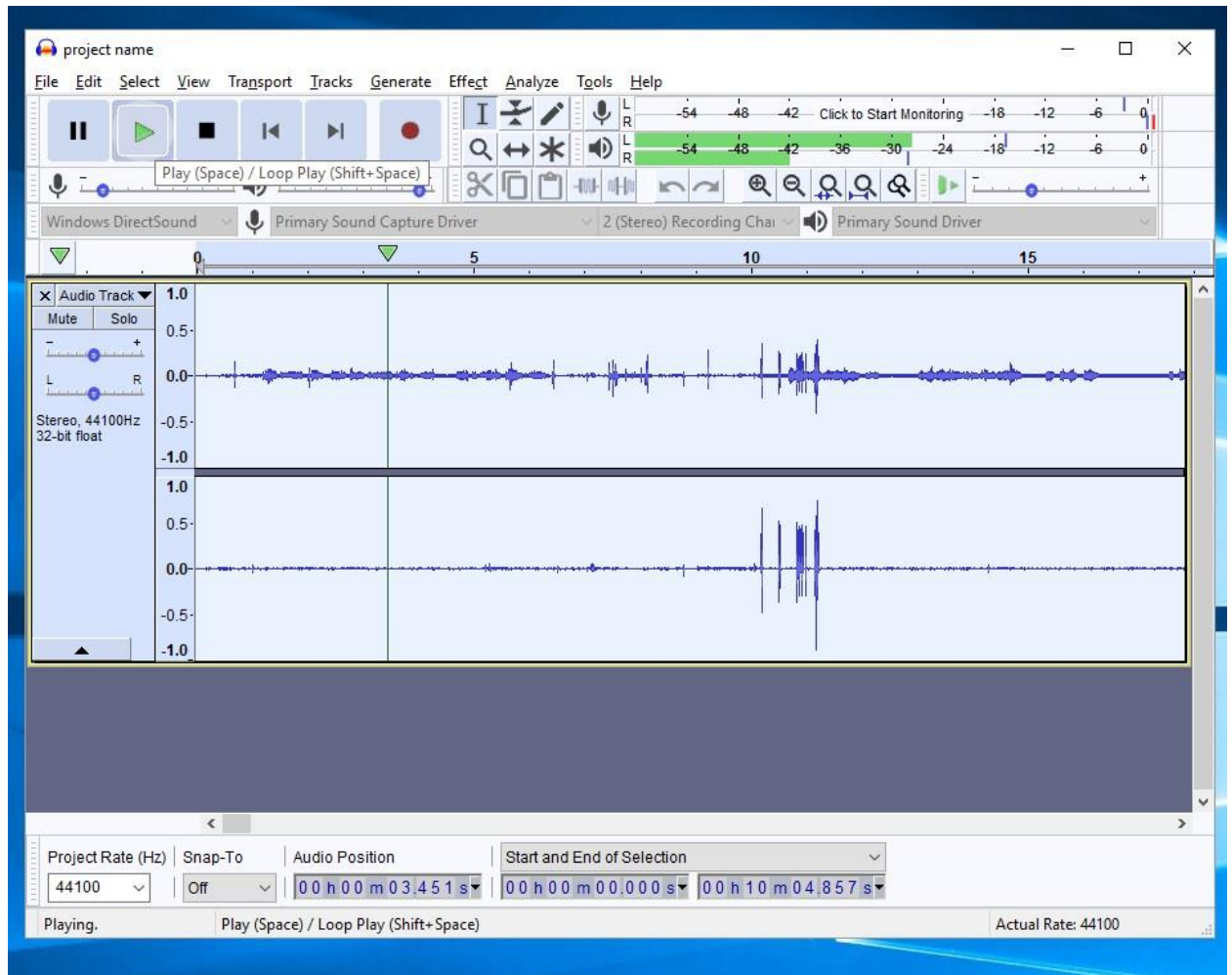
29. A new window will open. Click okay to continue with the normalize processing.



30. The software will normalize the selected track.

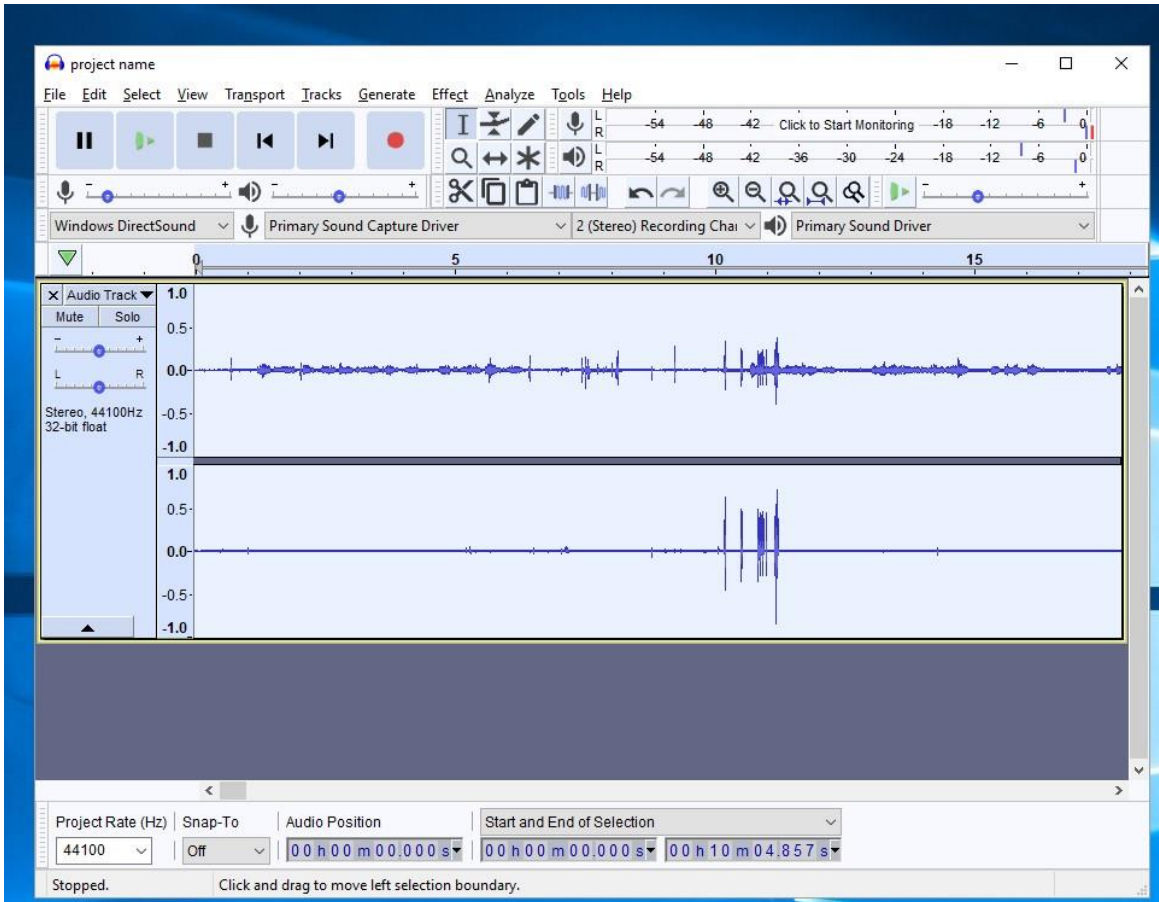


31. Once finished, click on the GREEN play arrow to listen and see if the audio quality has improved. If not, you can go to **FILE** and **CLOSE** without saving, and then re-open your raw audio file

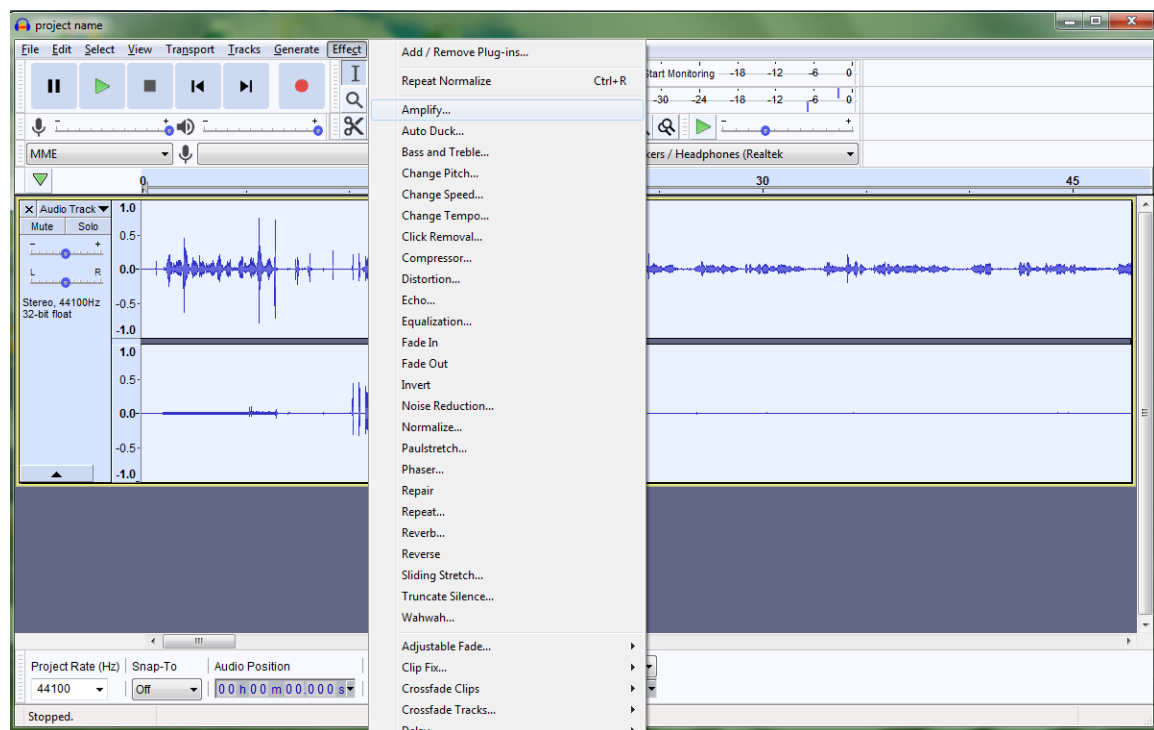


32. If the audio quality is good, skip to step #38 on page 39 to learn how to export the audio track for playback on other devices. If not move on to the next step to learn about the **AMPLIFY** effect

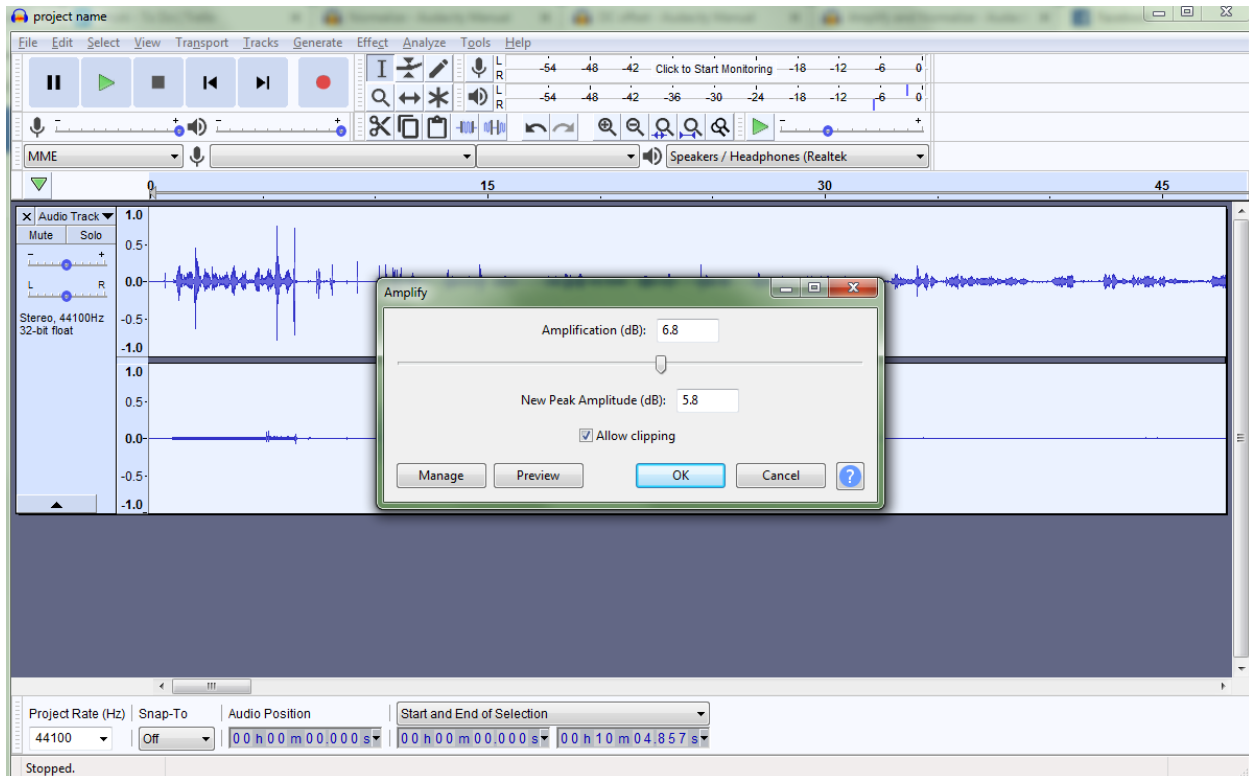
33. If the sound quality is still too soft, you might need to run the AMPLIFY effect. Go back up to **SELECT** and click **All** to select the entire track.



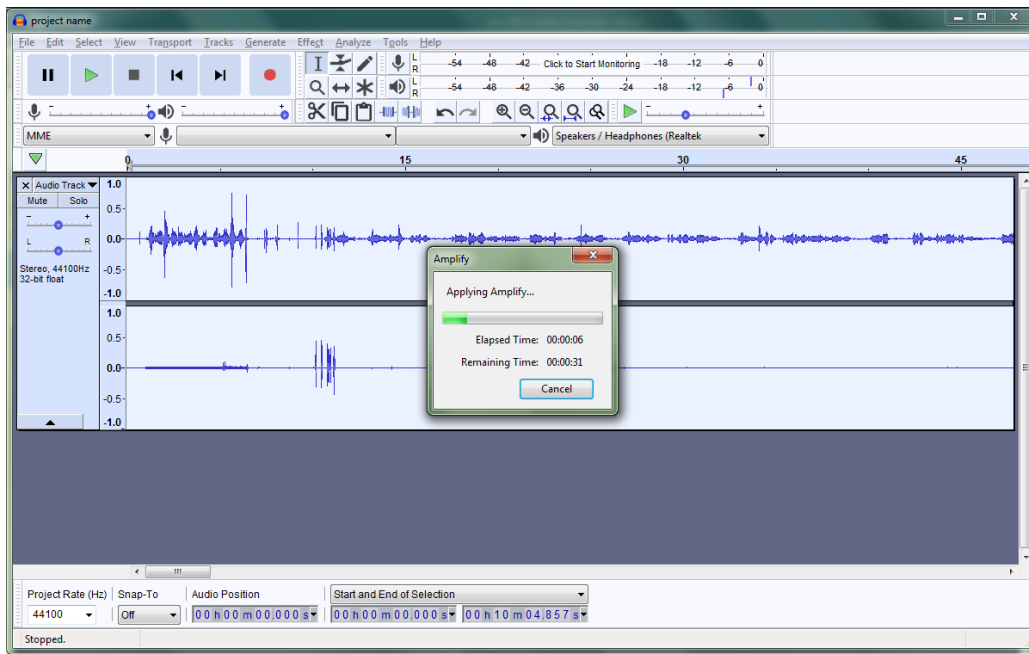
34. With the audio selected click on **EFFECT** in the menu, and select **Amplify**



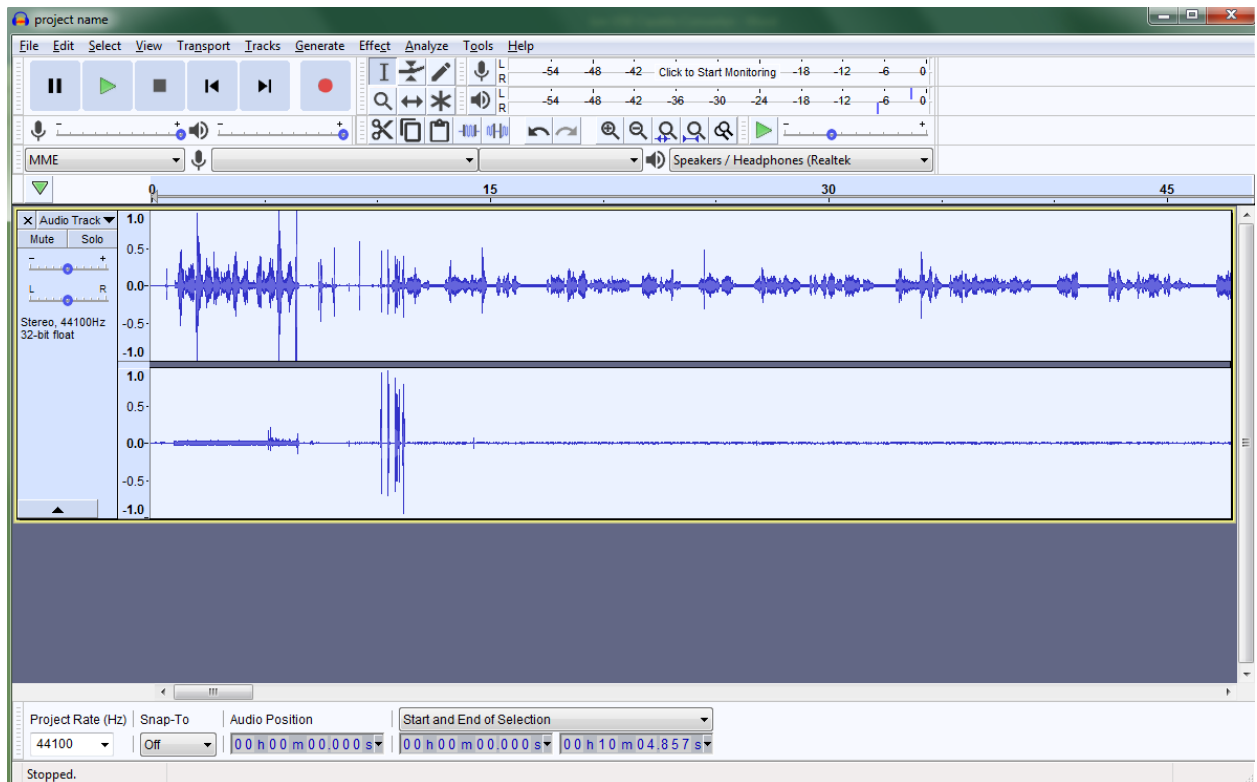
35. A new window opens. Check on the box that says **ALLOW CLIPPING**. Then slide the bar over until the peak Amplitude (db) value is around 6 db. (Don't go over 6 dB or you'll have too much of the sound).



36. The software will apply the Amplify effect.

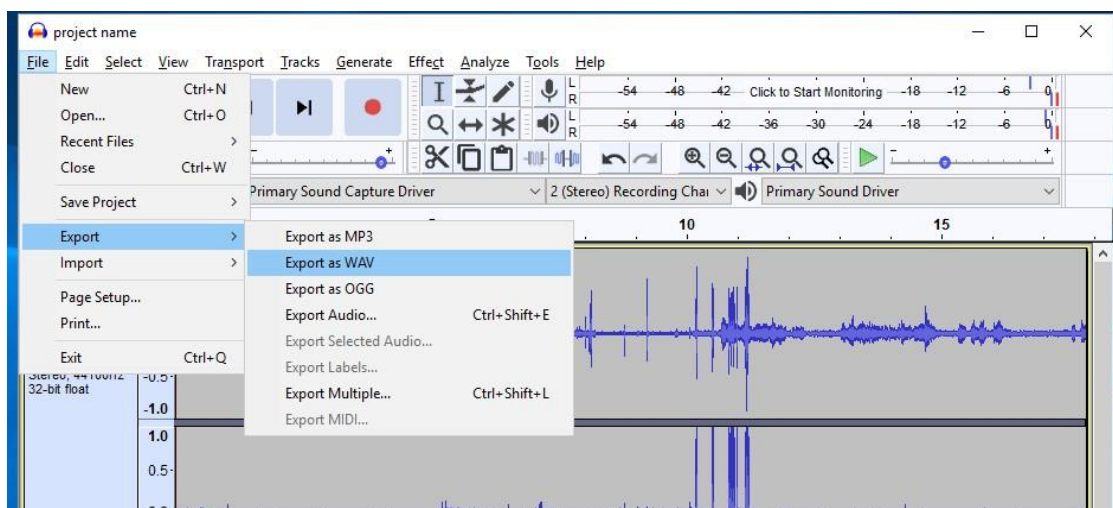


37. The soundwaves should appear larger inside the window. Once finished, click on the GREEN play arrow to listen and see if the audio quality has improved. If not, you can go to try playing around with the Amplify effect until you get a better sound.



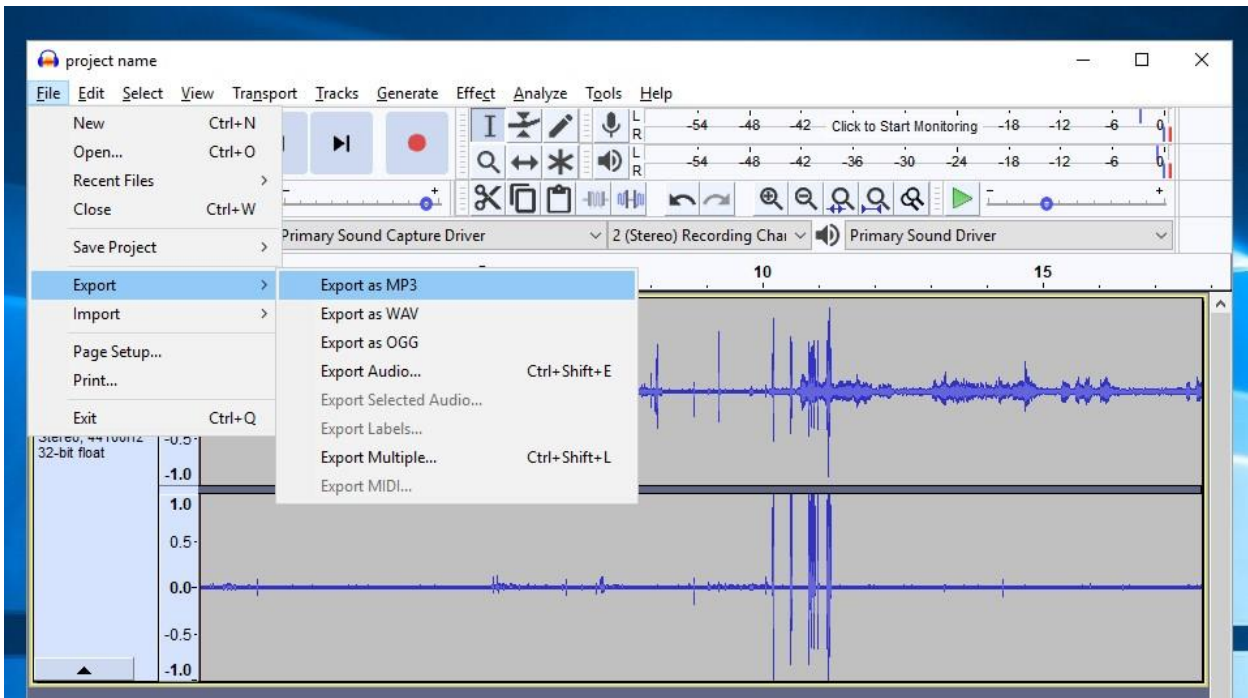
## EXPORTING AUDIO FILE

38. You are now ready to export the audio file so it will play on a different computer or device. To do so click on FILE in the top menu, then hover your mouse over export. A side window will appear with some options. Choose **Export as WAV** if you want to burn your audio file to a CD for playback, or you want a lossless audio format.

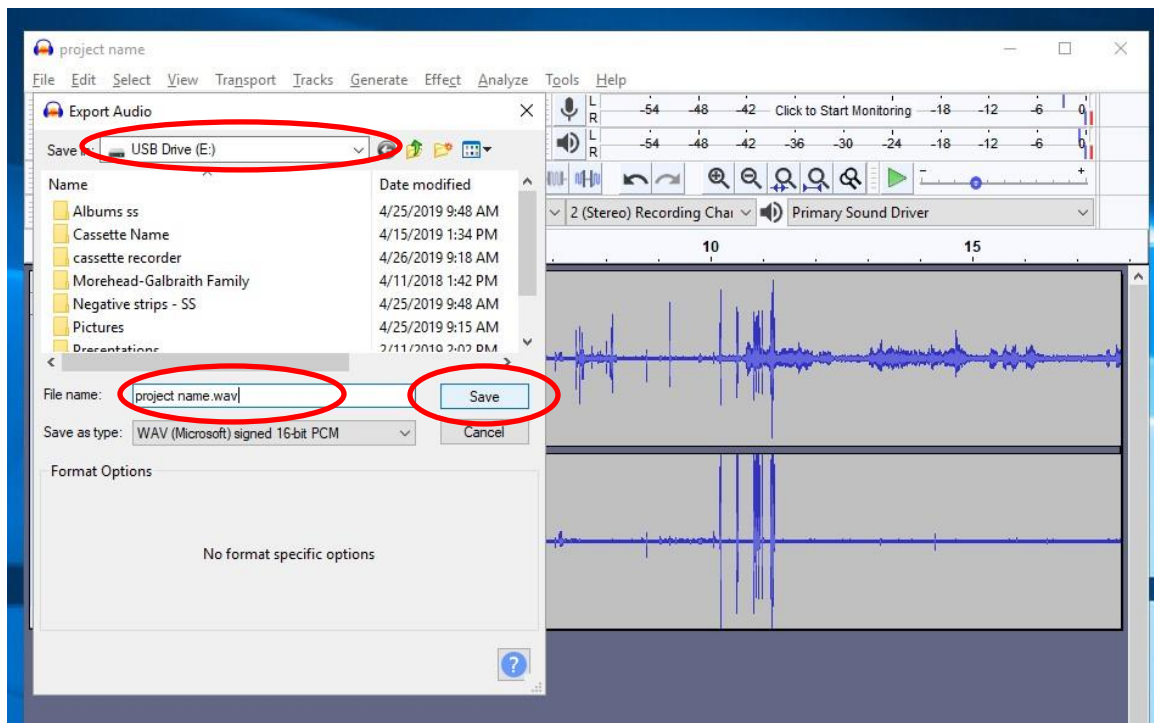




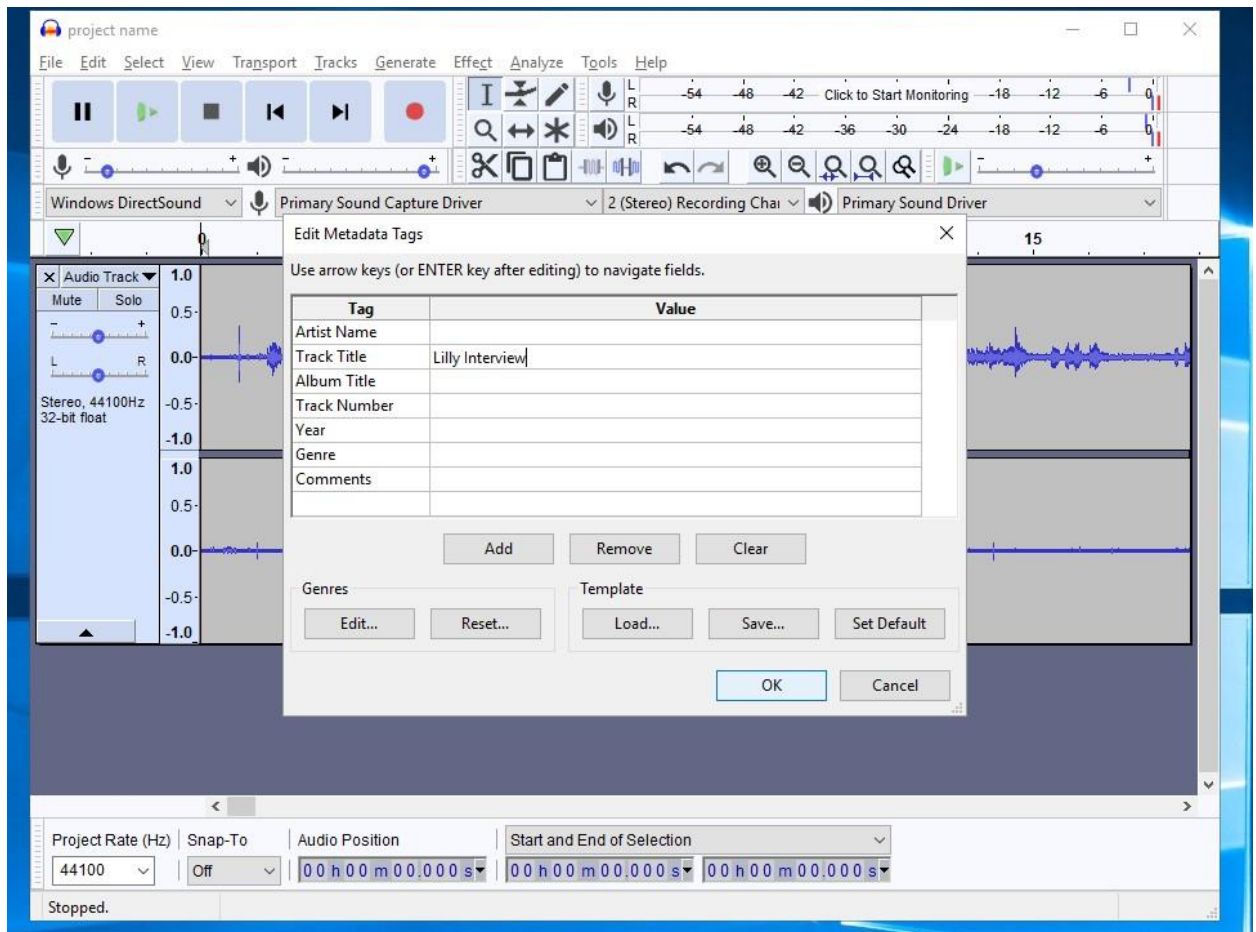
Choose **Export as MP3** for a compress file size that can play on your phone, ipod, or other media device.



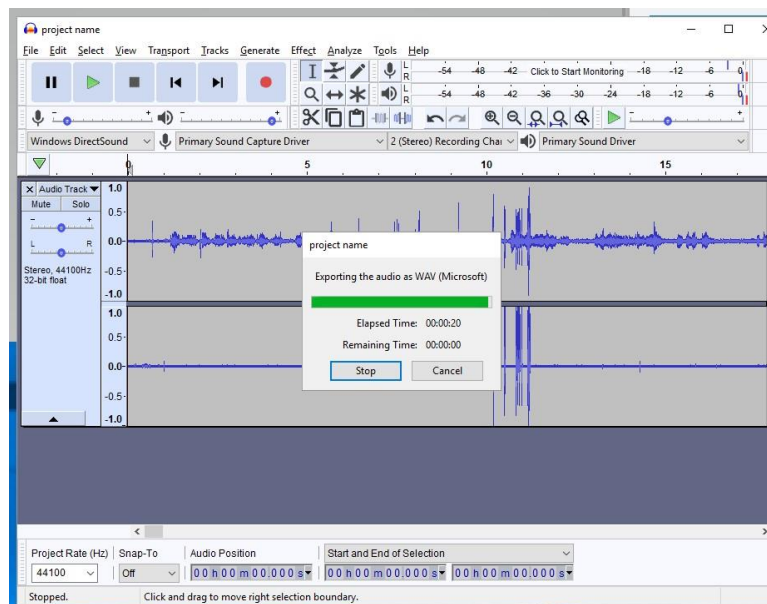
39. A new window opens. Choose where to save your exported file (verify your USB drive is selected). Then type in a file name, and click the **SAVE** button to save the exported file.



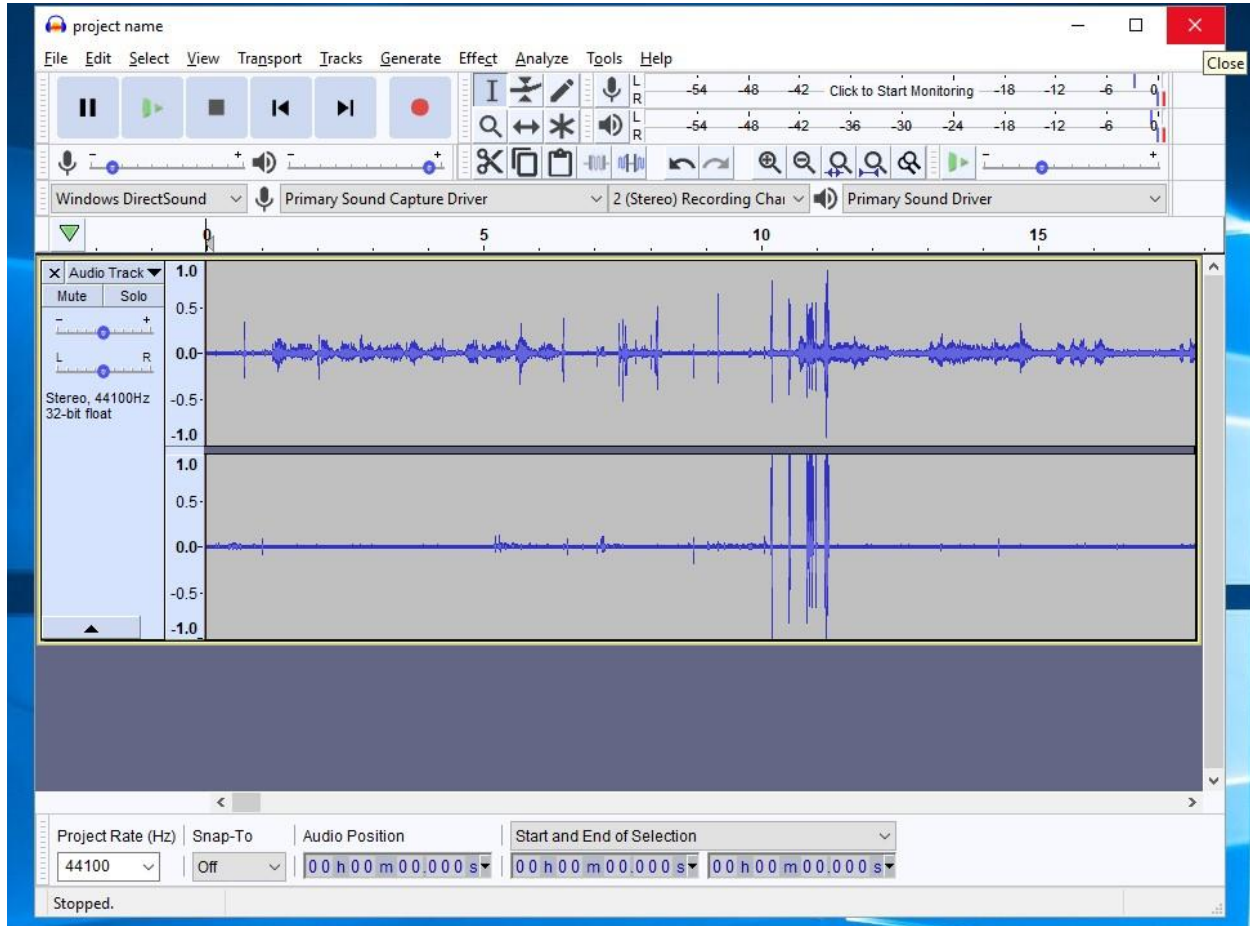
40. Another window will show up to allow you to add metadata to the audio file. Here you can input the pertinent metadata. If you don't want to input any values just click **OK**.



41. The audio file will be exported.



42. When finished, click on the red X at the top, right corner of the Audacity window to close the program. Remember to remove your cassette tape from the Ion Cassette converter, and to take your USB flash drive with you.



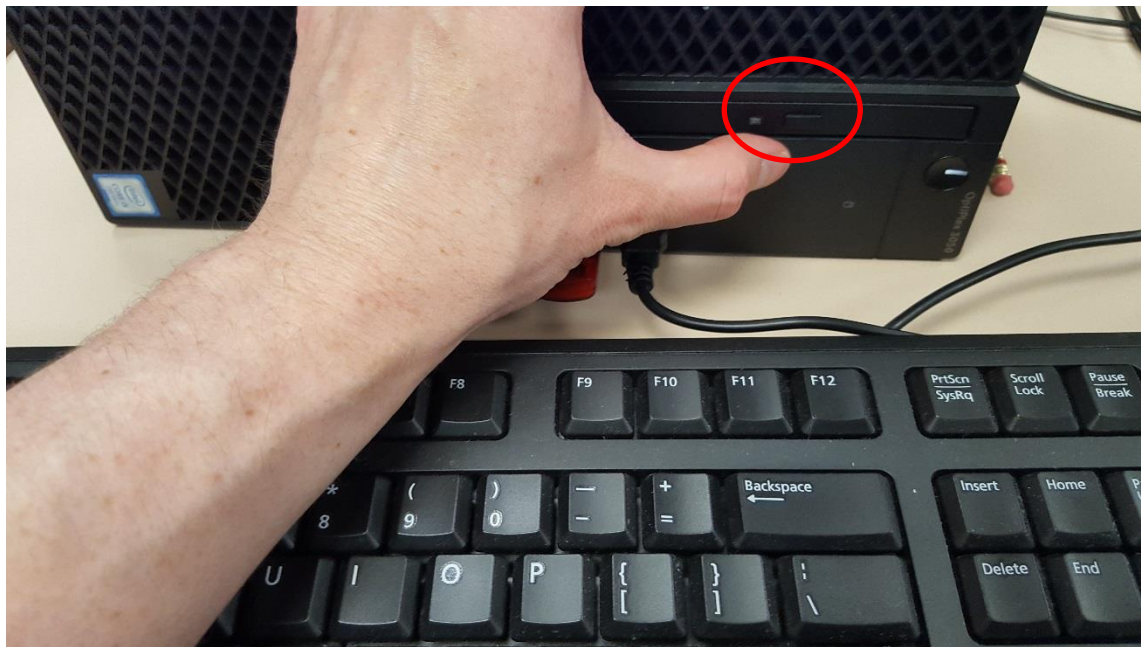
*Thank you for using our Ion USB Cassette Converter! Please feel free to leave a comment in the comment box. We'd love to hear about your experience.*



## Appendix A : Burning To A CD

You can alternatively burn your converted audio files onto a CD. You will still want to follow the steps to use either the EZ-Vinyl/Tape Converter software or Audacity software and save your audio files in a .WAV format onto your USB flash drive. Once you have finished this step you can follow the instructions below to burn the files to an audio CD.

1. Press the button on the CD/DVD drive of the PC to open the disc tray.

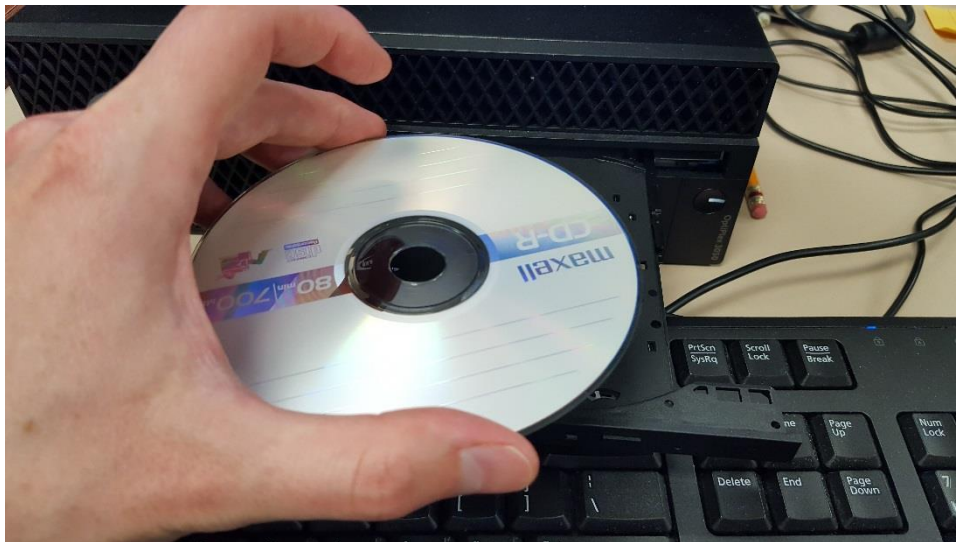




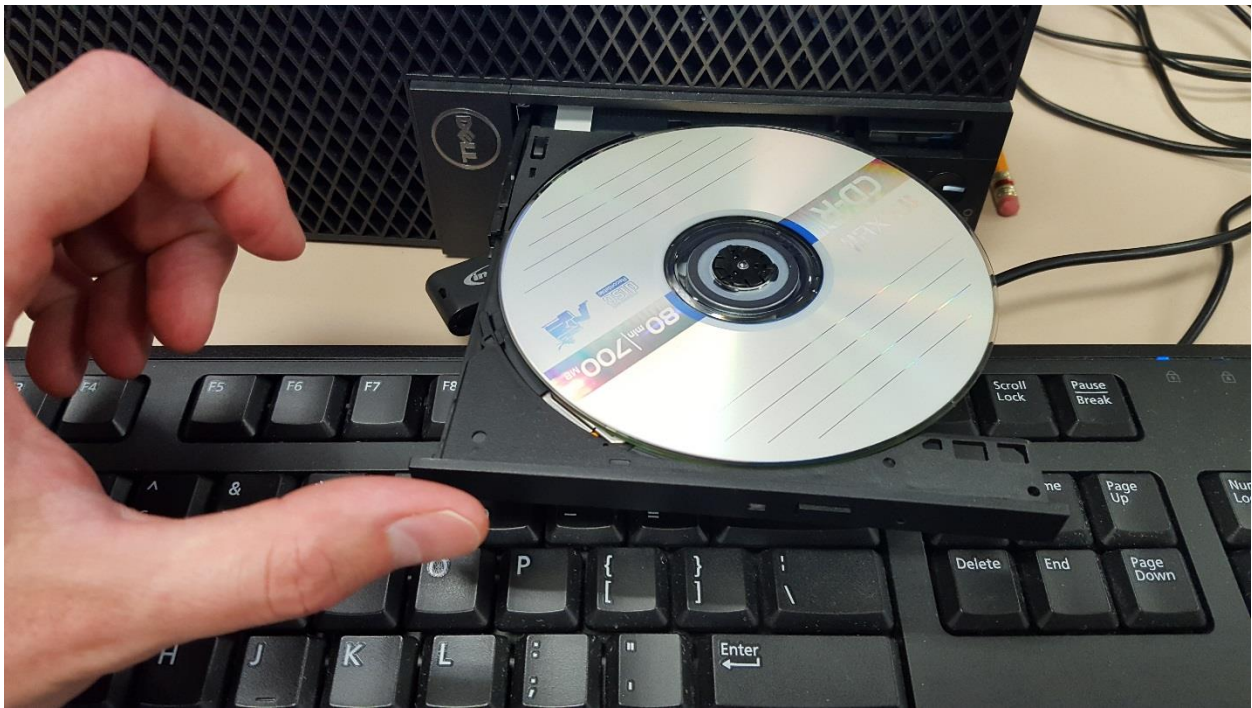
2. Pull the disc tray out all the way.



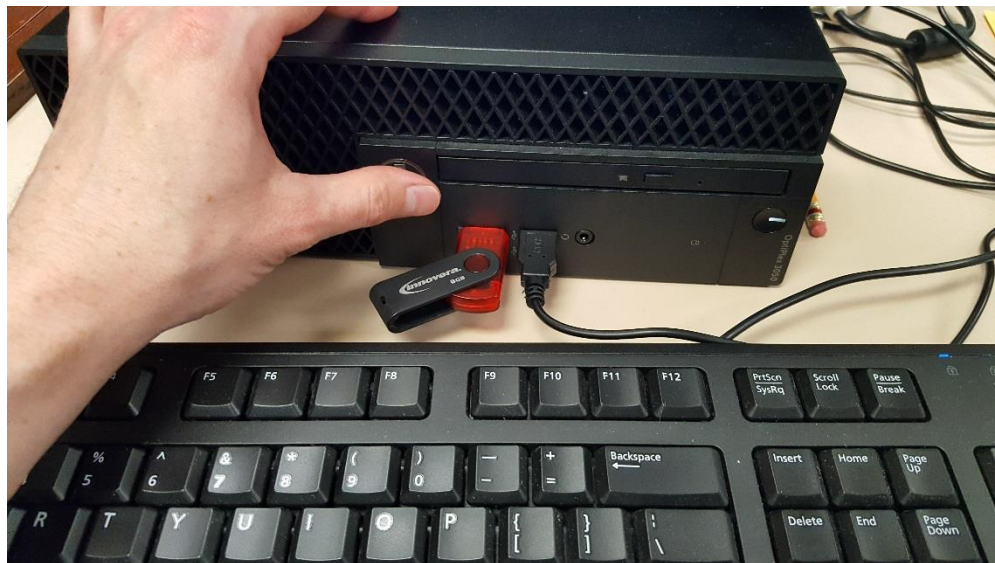
3. Insert your blank CD into the drive, pressing the disk onto the spindle in the middle of the disc tray.



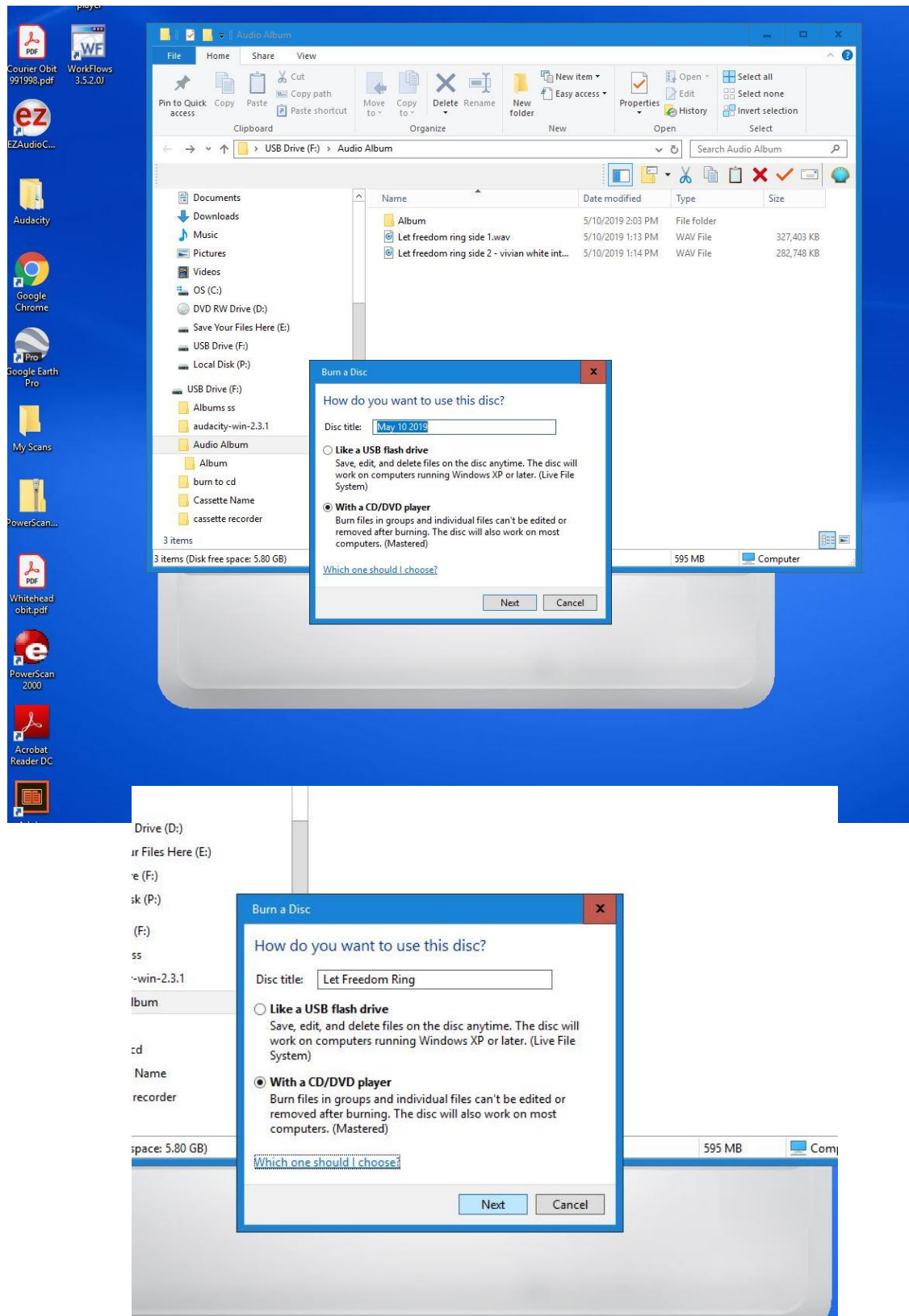




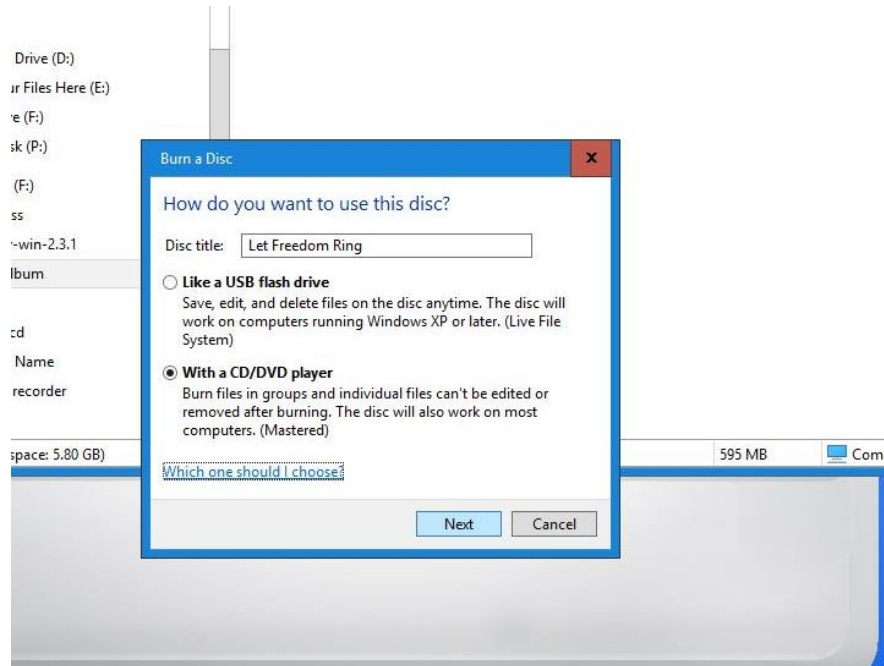
4. Press the disc tray back in until closed.



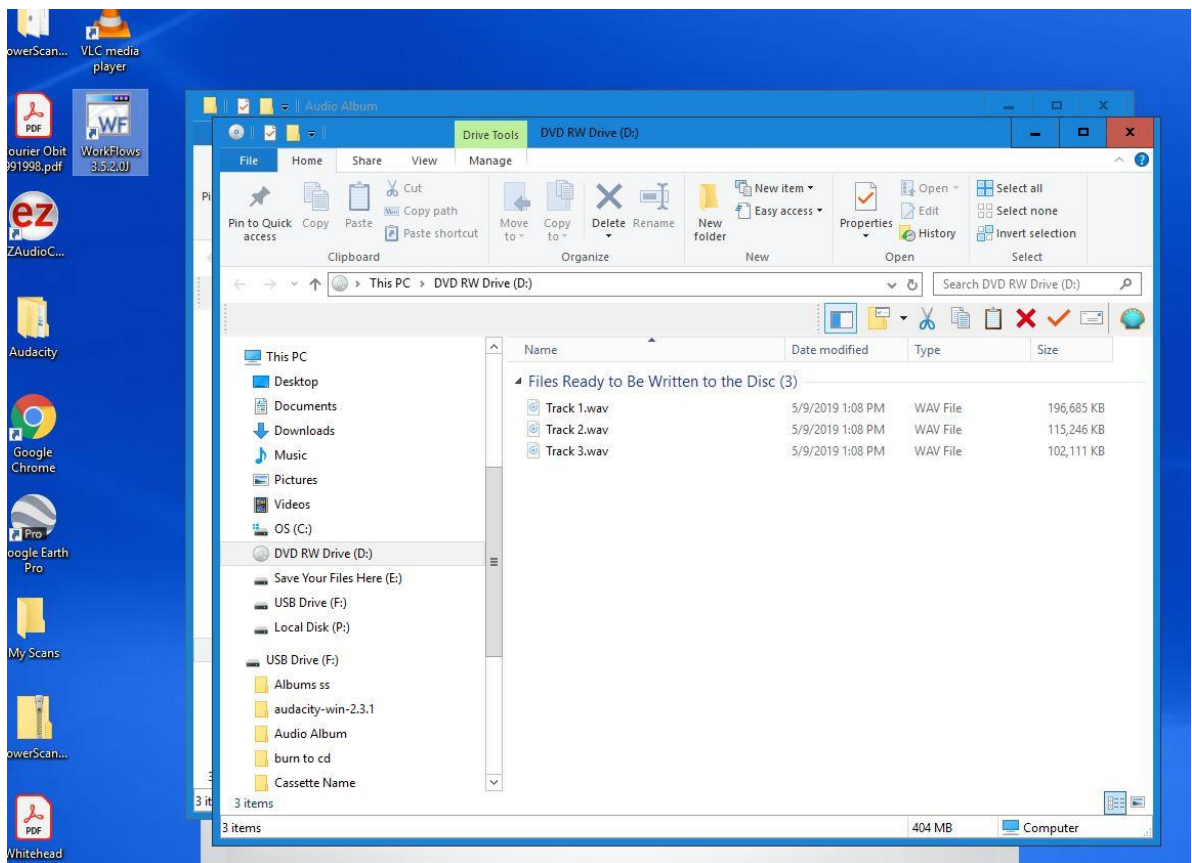
5. On the PC screen, a window will pop up called 'Burn a disc'. Here you can give the disc a title.



6. You'll want to select the option "with a CD/DVD player" in order to create a mastered disc that will play in your car or home stereo. Once selected, click the NEXT button.

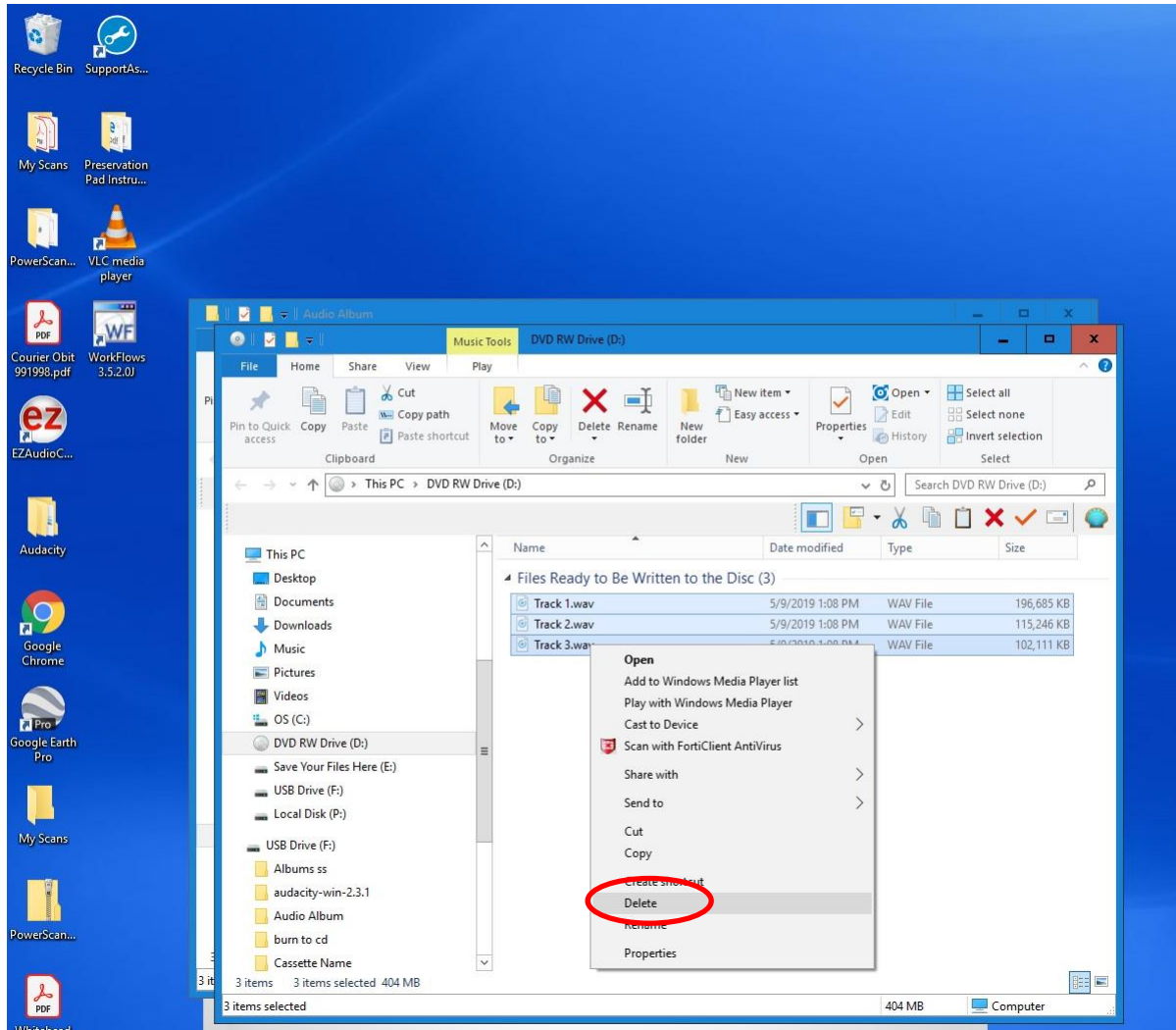


7. A window will open up for the DVD RW drive (D:). Under *Files ready to be Written to Disc* there might be some leftover files from before. You'll want to clear these out before proceeding. To do so select all the files (using the mouse or clicking control + A on the keyboard).

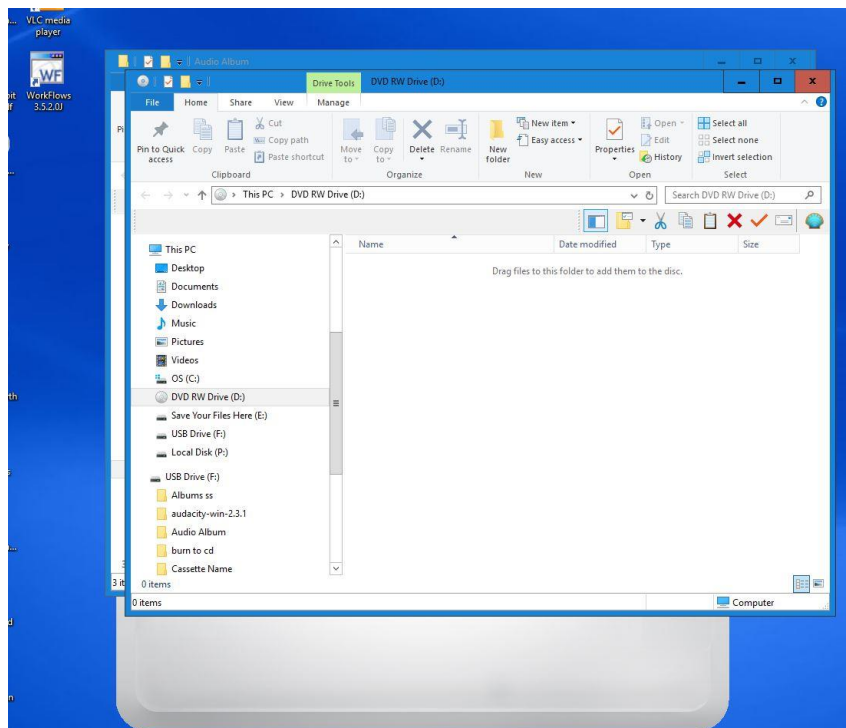




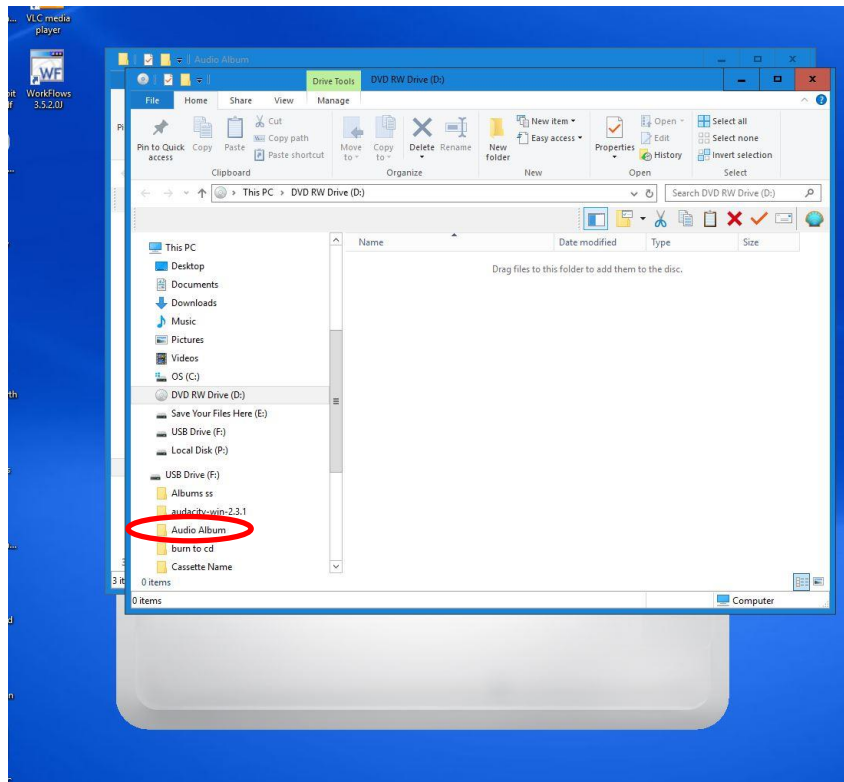
8. Right-click with the mouse on the selected files to open the menu selection menu. Select **delete**.



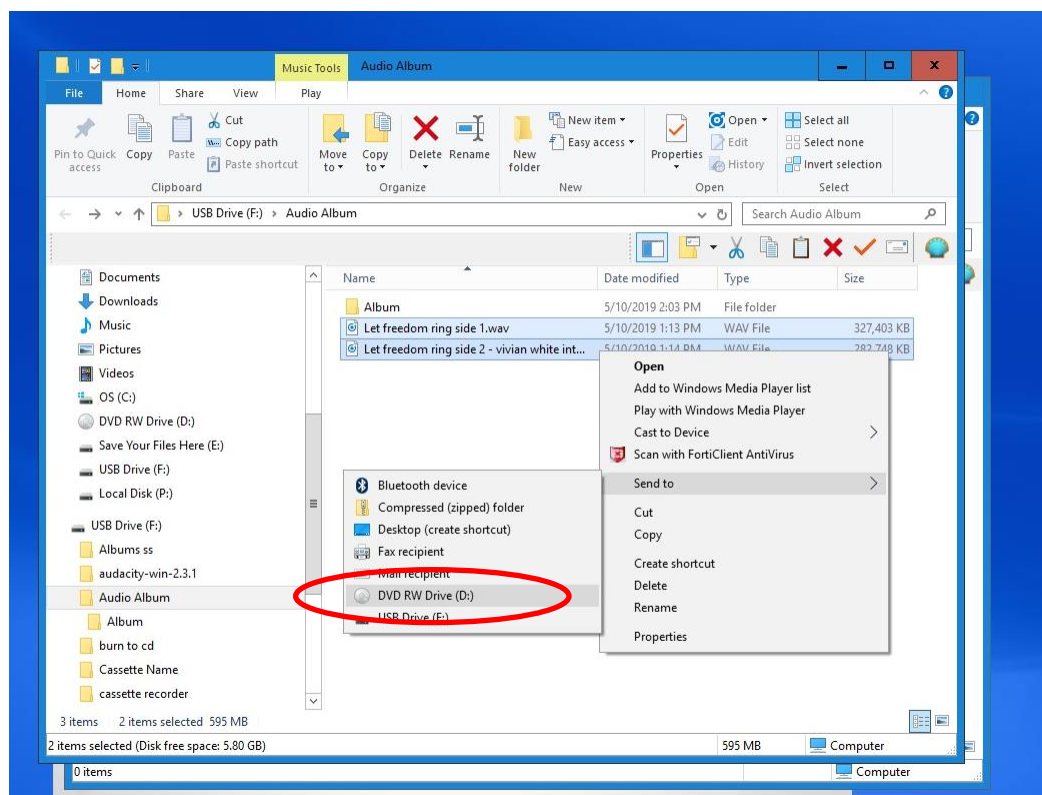
9. The window should now be clear of files.



10. Using the mouse, click on your USB drive on the left-hand pane to navigate over to where your audio files are saved. I have mine saved under the audio album for this example. I'll left click on **Audio album** to open this folder in the file explorer window.

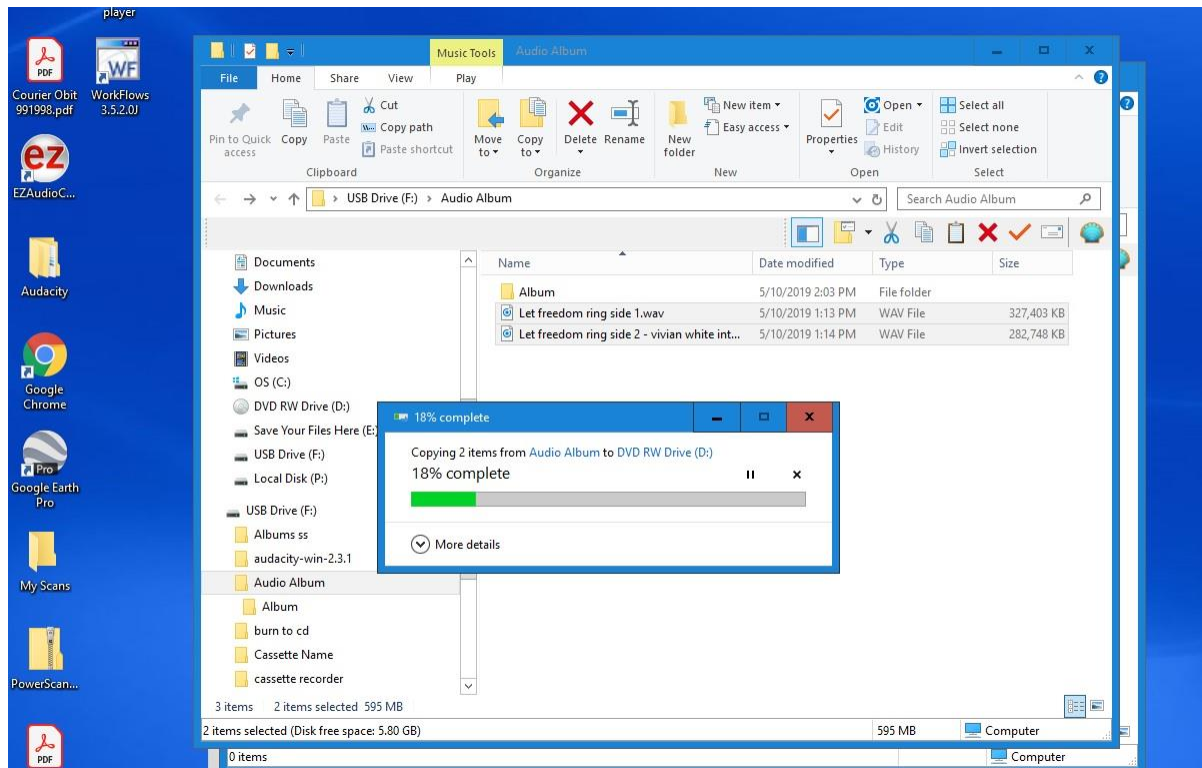


11. Inside this window you'll see your saved files. Select the files again with the mouse, and then right click to bring up the submenu. Hover over Send to with the mouse to bring a side menu, and then select **DVD RW Drive (D:)**.

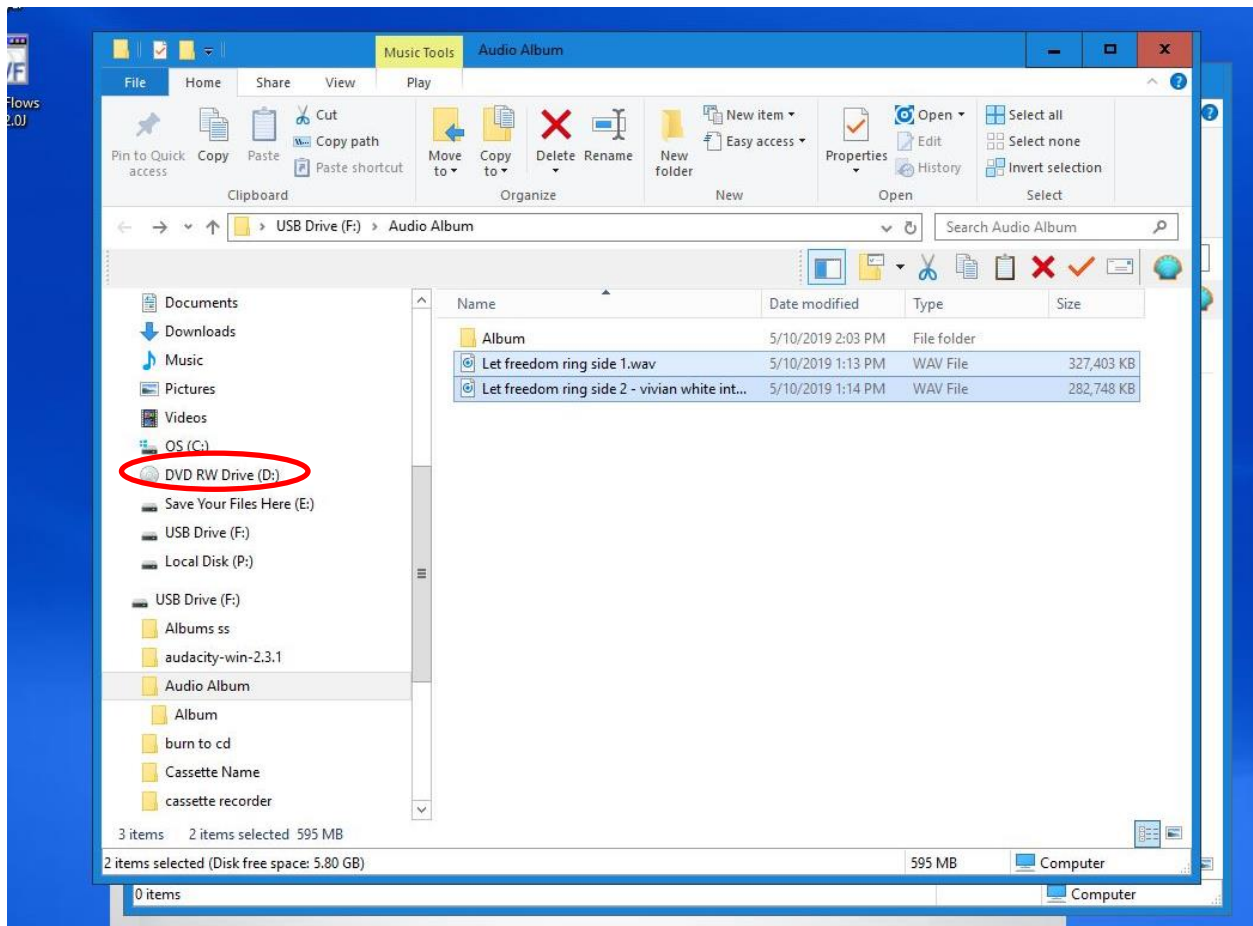




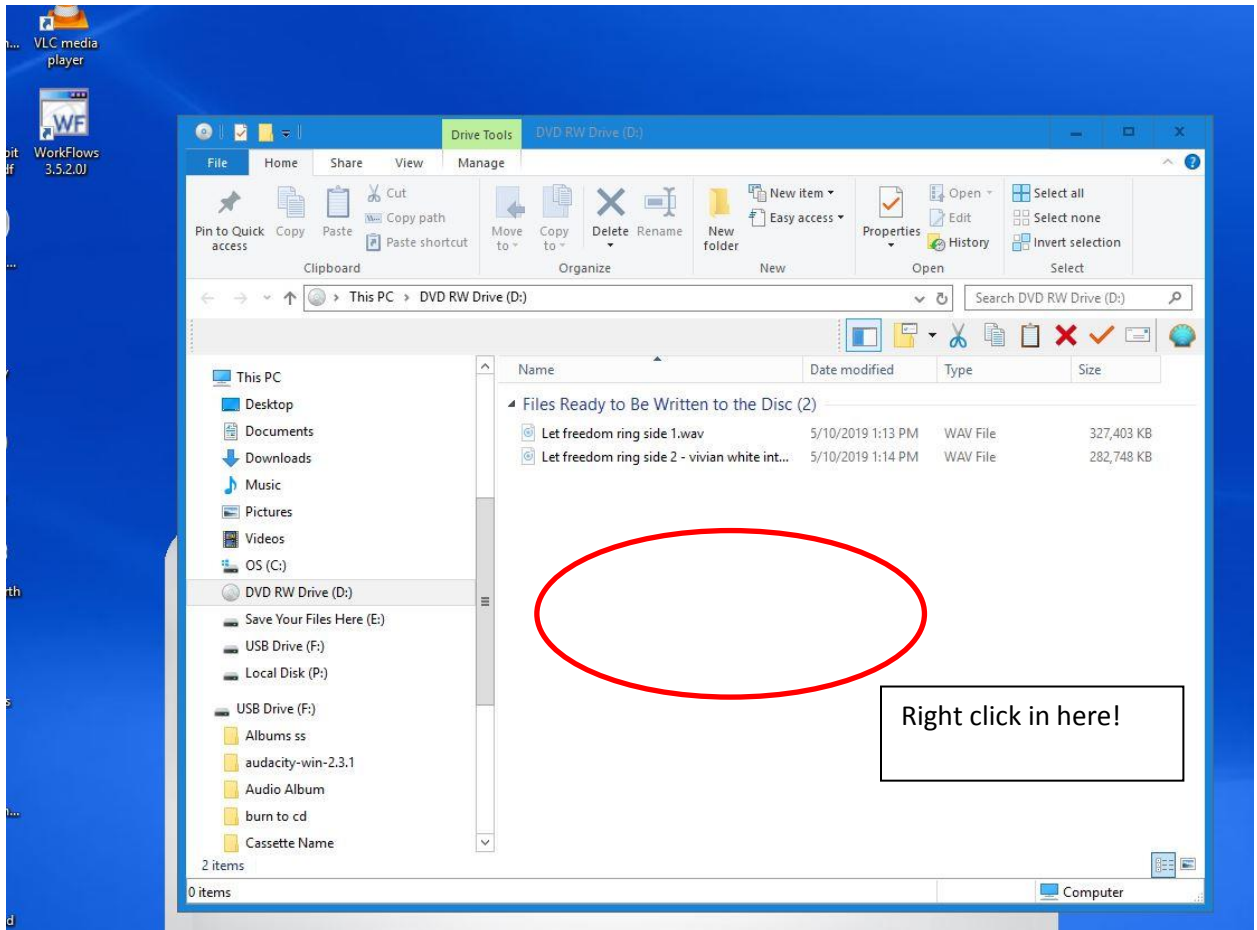
12. The files will be copied over the DVD queue.



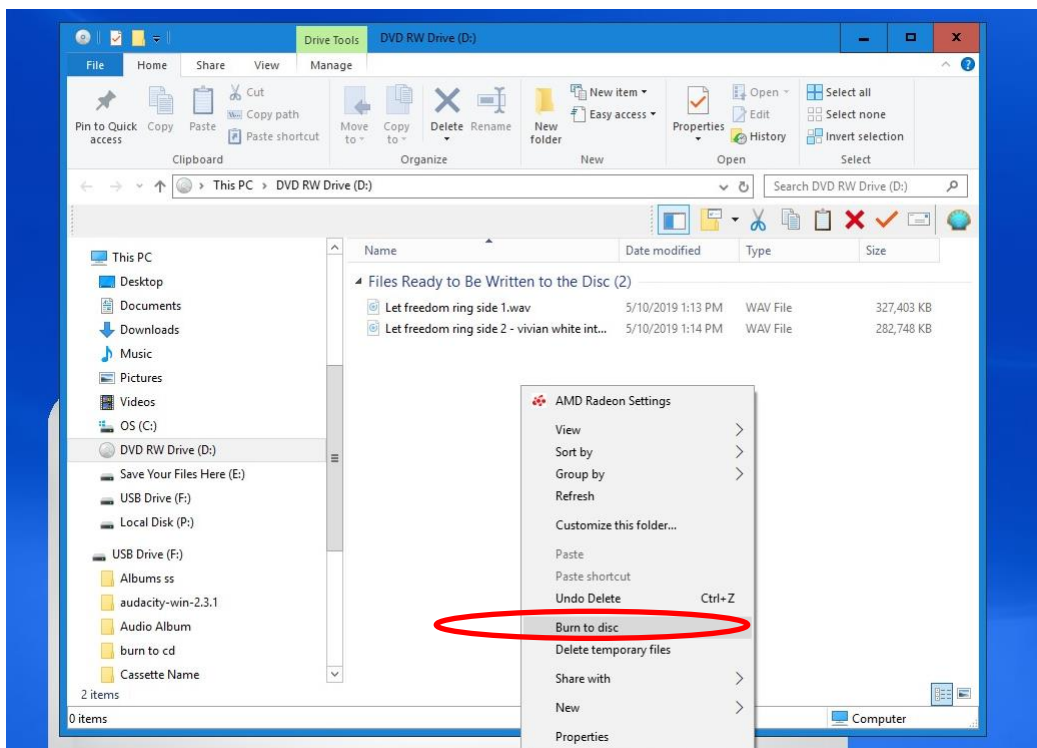
13. Once done, click on the **DVD RW Drive (D:)** on the left-side panel to re-open the DVD drive window.



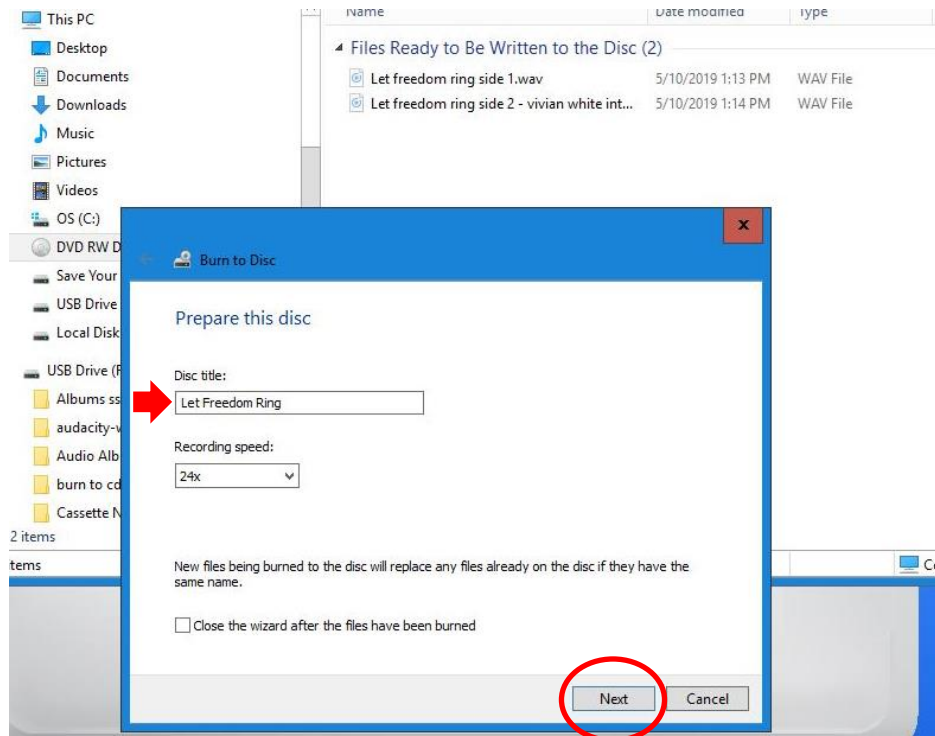
14. Inside this window you'll see the files you added under *Files ready to be written to the Disc*. You're now ready to proceed with the copying process. Right click on any of the white space under the filenames of your audio files.



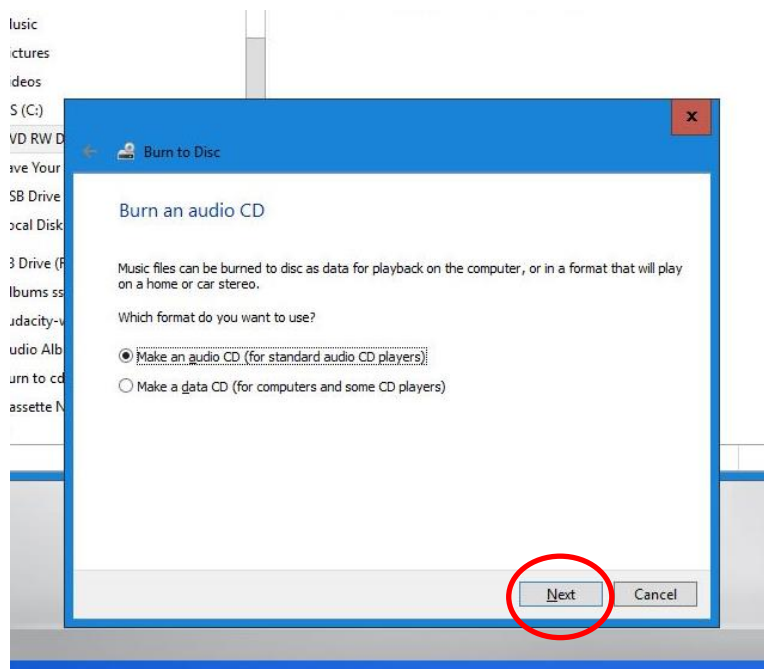
15. A submenu appears. Click on **Burn to disc** to proceed.



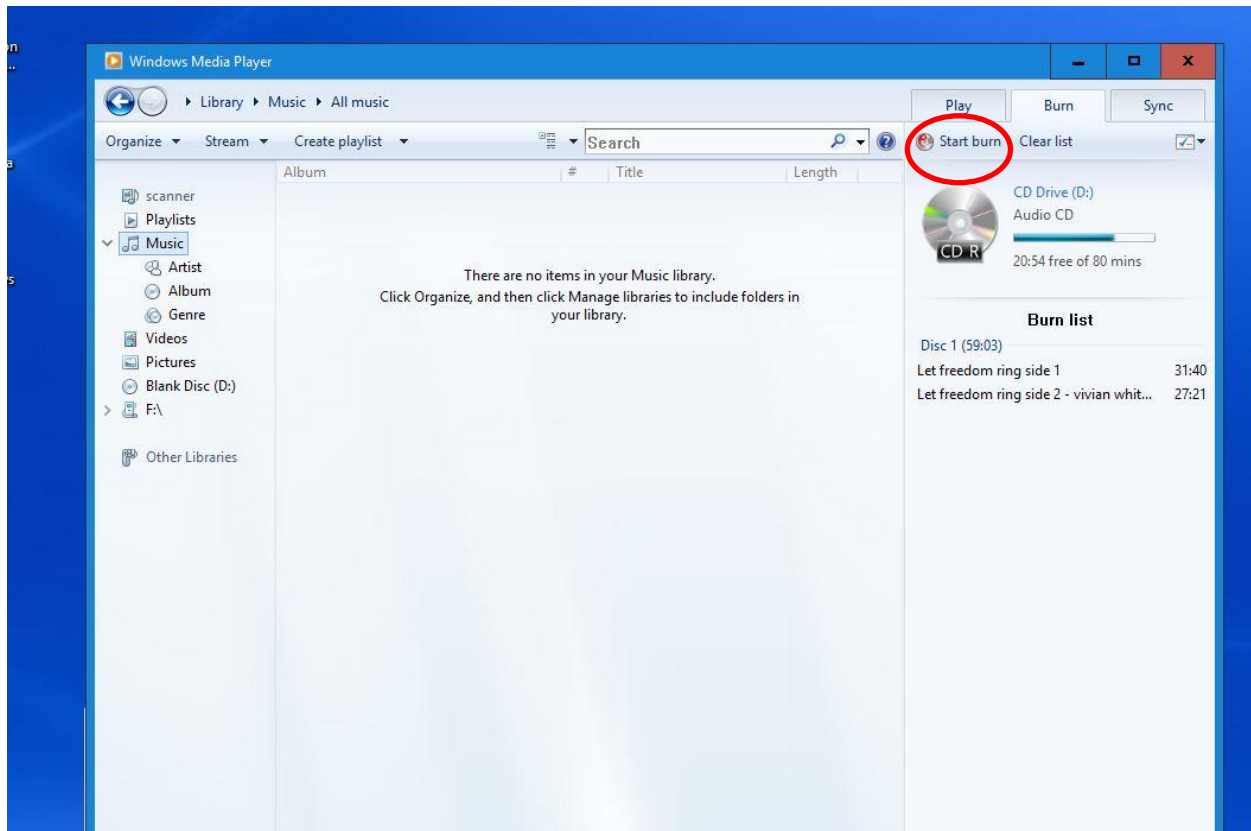
16. A new window opens You can designate the disc title again, select a recording speed (24x is recommended). Then click on the **next** button to proceed.



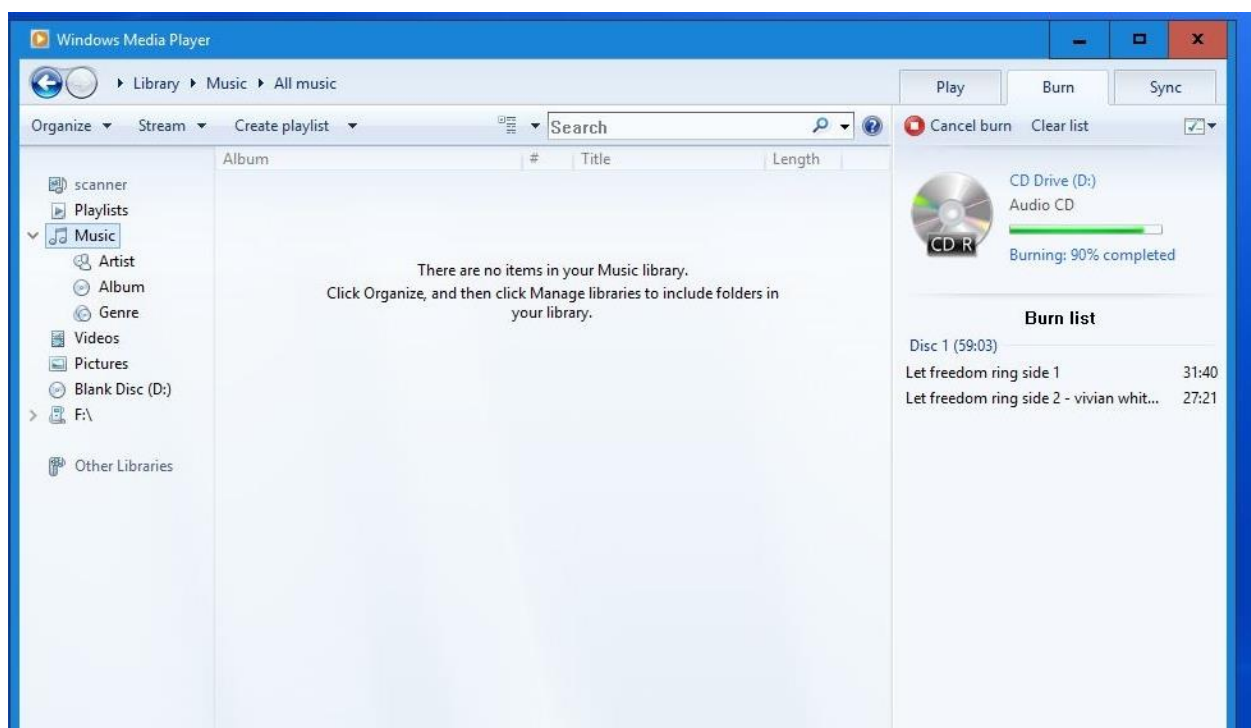
17. On the next screen select “make and audio CD” (for standard audio CD players)” Then click the **next** button.



18. The Windows Media Player program will open. It will show a Burn list on the right side of the screen with your audio files listed. Click on the **Start burn** button to proceed with the burn process.



19. Your files will now be burned to the CD (will take several minutes to complete).

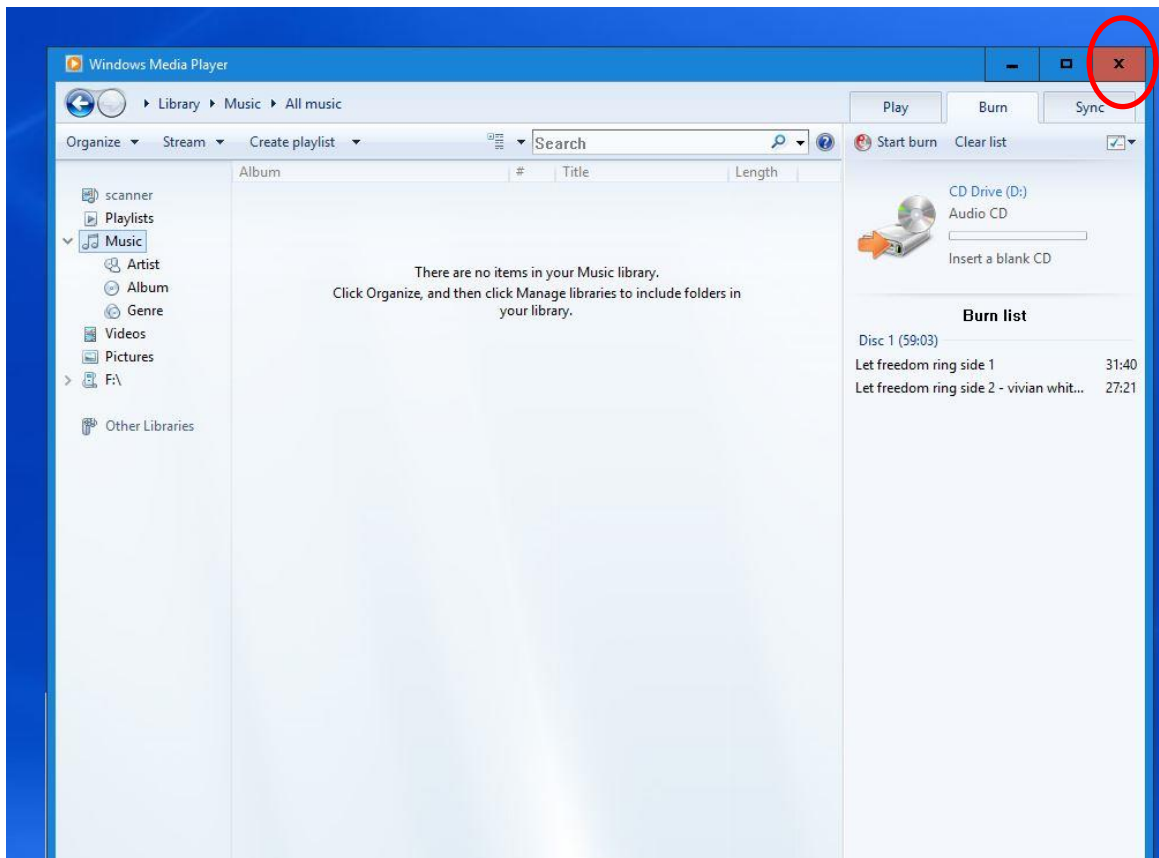




20. Once finished, the PC will eject the DVD drive tray. You can go ahead and open the tray all the way and remove your completed CD. Make sure you label it appropriately using a permanent marker!

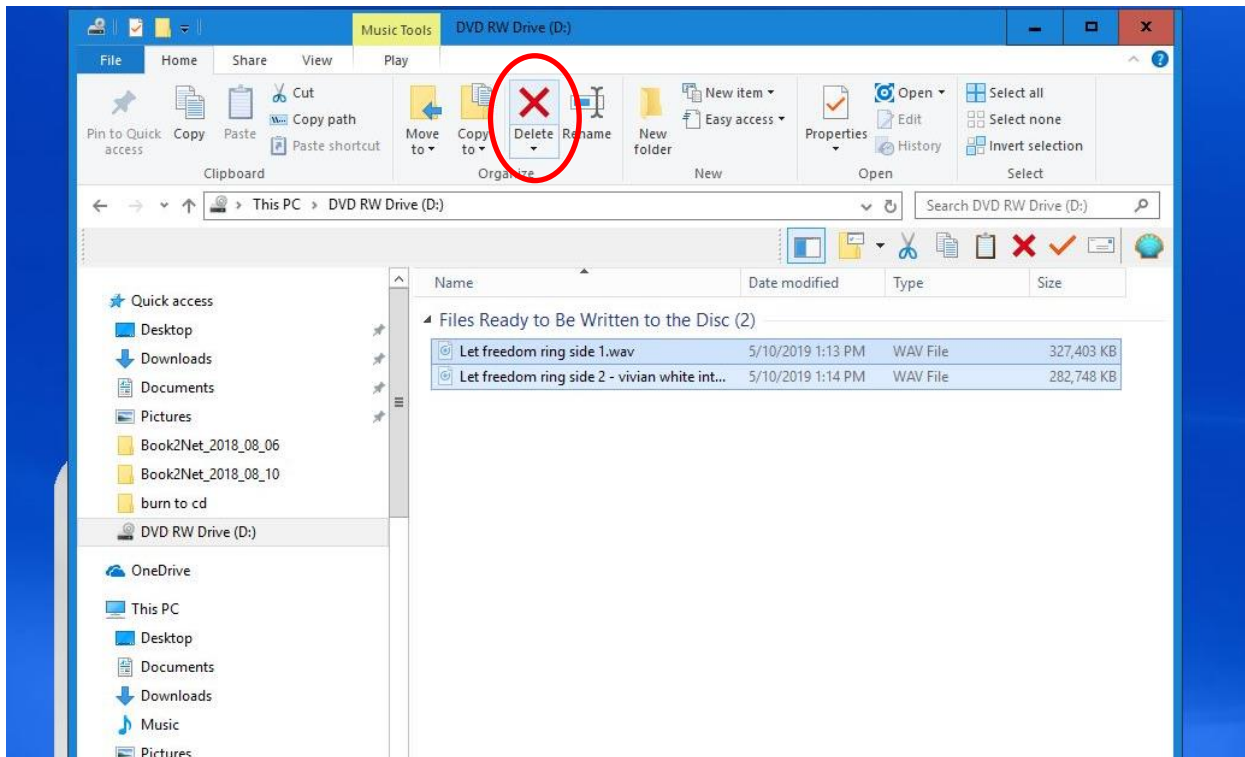
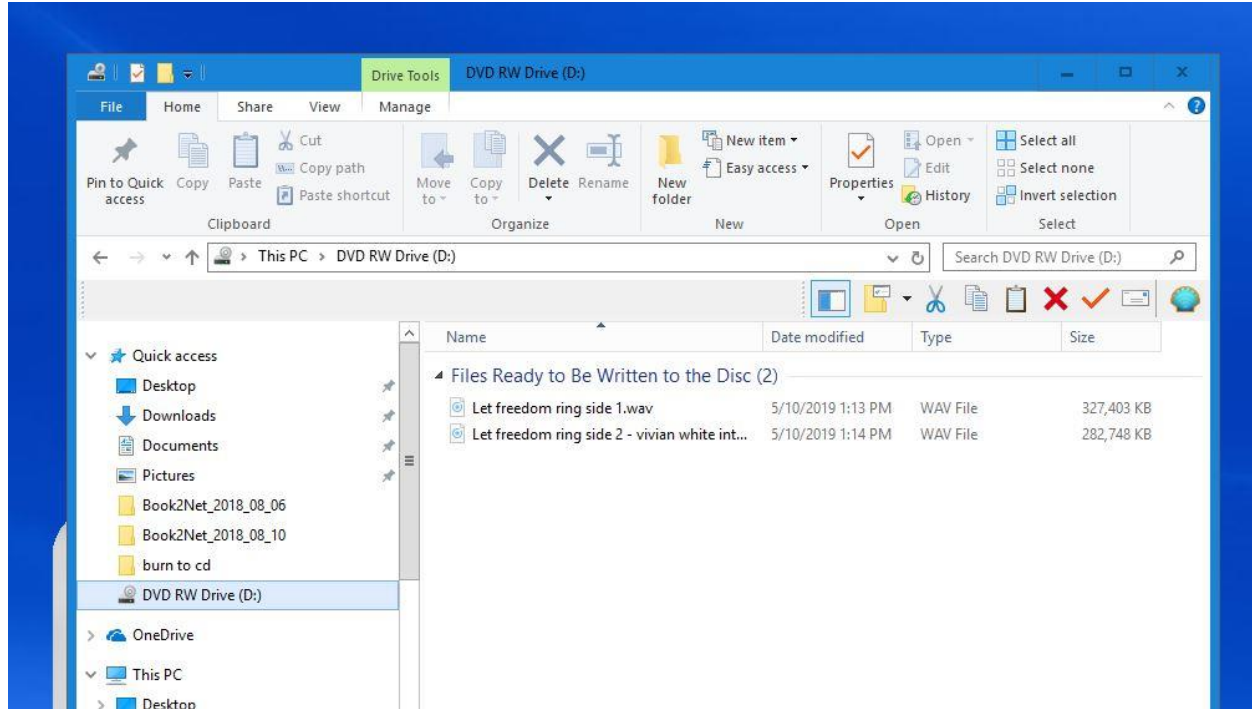


21. Back on the PC screen, you can close the Windows media program by clicking the **red button with the X** at the top right of the program's window.

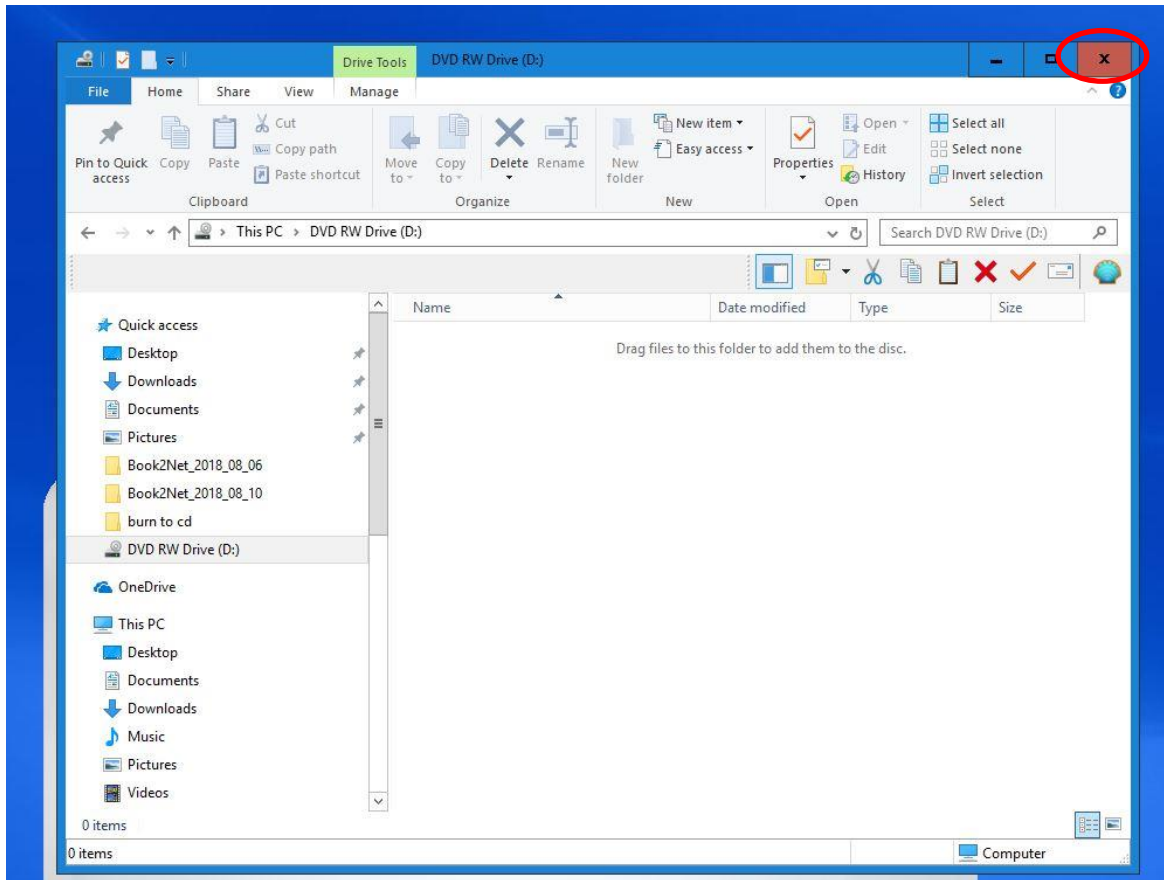




22. Navigate in the file explorer back to the DVD RW drive D: You'll still see your files in the queue. Select them and click on the **Delete** button to clear the queue list for the next person.



23. The files will be removed, and the burn queue will be clear for the next patron. You can now click on the **Red button with the X** at the top right to close the DVD-RW drive window.



24. You are all finished. Remember to remove your completed CD and USB flash drive to take with you.

*Thank you for using our Ion USB Cassette Converter! Please feel free to leave a comment in the comment box. We'd love to hear about your experience.*