



“Wolverine”



8mm and Super 8 Film Digitization Manual

Steps to Digitizing 8mm/Super 8 Film with the **Wolverine** Movie Maker Pro

Step 1: Set up the Wolverine.....	3
Step 2: Clean the light table	4
Step 3: Load your film.....	5
Step 4: Select Film Type.....	7
Step 5: Adjust frame to center your film	8
Step 6: Digitization	9
Step 7: Rewinding your film.....	10
Step 8: Transferring your movie files (.mp4 files) from the SD memory card to your personal storage device.....	11
Step 9: Finish up and check out.....	12

The Wolverine Movie Maker Pro will help you convert your 8mm or Super 8 film into a digital video file (mp4) with Full HD resolution (1080P/20 FPS).

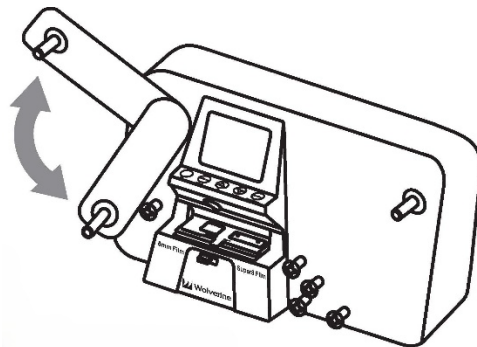
Each minute of film takes about 10 minutes to digitize.

The following table provides some approximate recording details based on your film reel size:

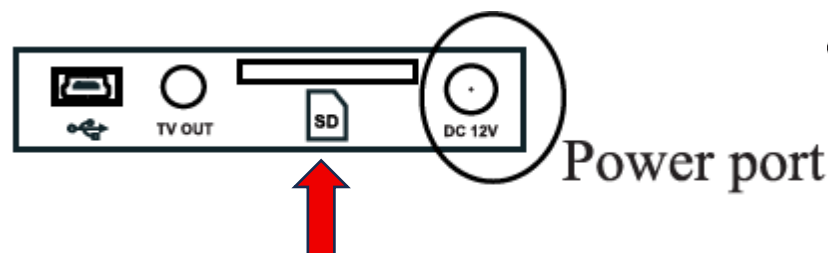
Reel Size	Film length	Run-time of film	How long to digitize
3 inch	50 ft	2-3 mins	25-35 mins
5 inch	200 ft	12-15 mins	1hr 40 mins – 2.5 hours

Step 1: Set up the Wolverine

- a. **Swing up the arm** to mount the film reel.



- b. **Attach the power cord** by plugging the DC 12V power adapter into the power port on the back of the Wolverine (see below).



- c. **Insert** the SD memory card **on the back of the Wolverine face up** into the SD slot, and push until it clicks into place.
- d. Turn on the Wolverine by pressing the **POWER** button  located on the left side of the **front control panel**.

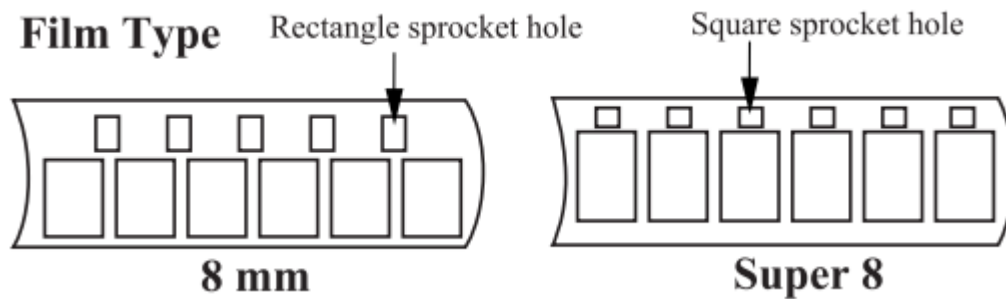
Step 2: Clean the light table



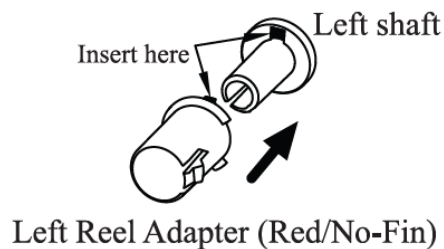
Film flap door lever.

- a. **Open the film flap door** by sliding the “**Open**” lever to the **LEFT**, exposing the light table.
- b. Using the air puffer and bulb brush, gently **clean the light tray** by removing dust and particles with puffs of air and the brush.
- c. You may also need to wipe dust away from the edges of the table on the film pathway.
- d. **Close** the film flap door.

Step 3: Load your film

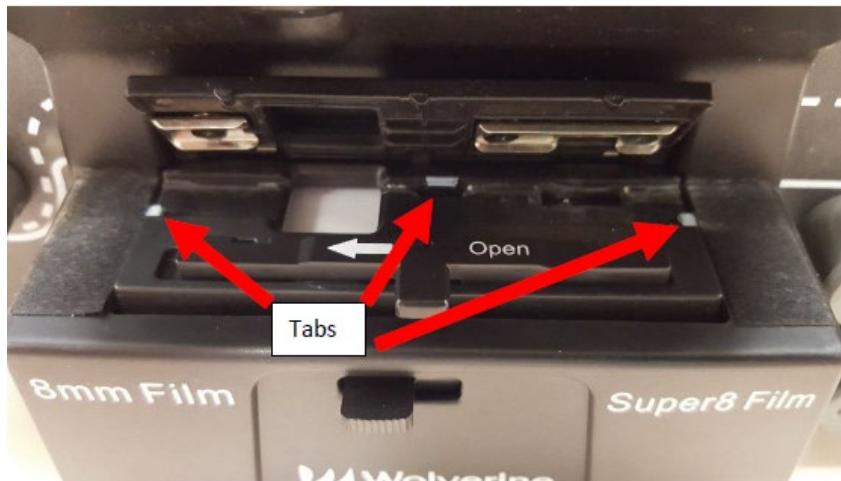


- Place empty film spool (black), or the take-up spool, on the right shaft.** The film spool's center should slide snugly on the shaft's fin.
- If you are loading 8mm film, mount the reel directly on the left shaft.** **If your film is Super 8, you will need to first apply the RED reel adapter to the left shaft** and then mount your film reel.



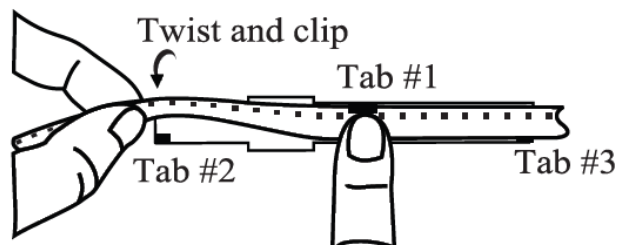
- Mount your film with sprocket holes facing **towards** the Wolverine (away from you).** The film spool on the left should spin freely but should not loosely wobble on the shaft.
- Thread the film** following the film routing diagram printed on the face of the Wolverine – **follow the solid line for digitization**. Check that the film's sprocket holes are positioned **towards** the Wolverine.
- Stick the end of the film into the slot** in the center of the take-up spool to anchor it.
- Open the film flap door** by sliding the “Open” lever to the left.

- g. Find the beginning of the film where there are images in each frame and **thread the first few frames under all three white tabs** as shown:



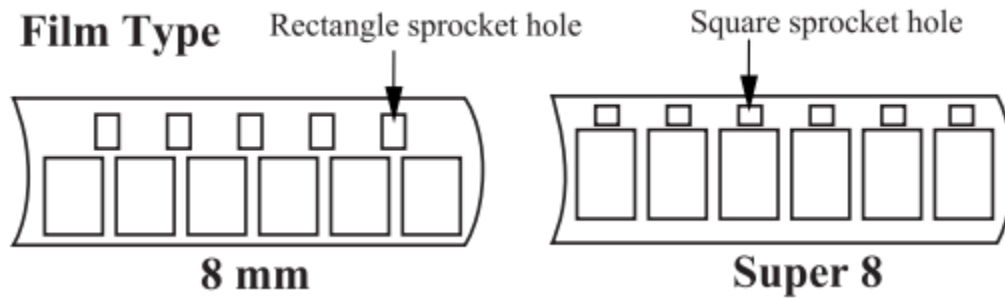
Steps to place film on table:

1. Place and hold film underneath Tab #1
2. Twist film slightly and clip film underneath Tab #2
3. Twist film slightly and clip film underneath Tab #3

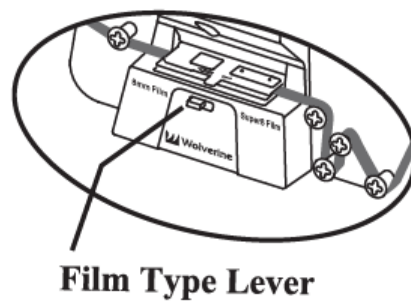


- h. Make sure the film is properly placed underneath **all three** white tabs.
- i. Use the bulb brush to blow or brush away any dust or particles from the film table.
- j. **Close** the film flap door.

Step 4: Select Film Type

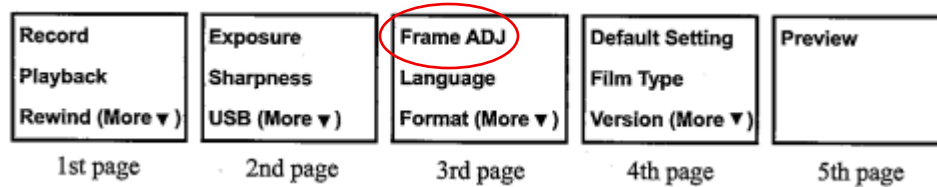


- Toggle** the film type lever to the appropriate selection, 8mm (Left) or Super 8 (Right).

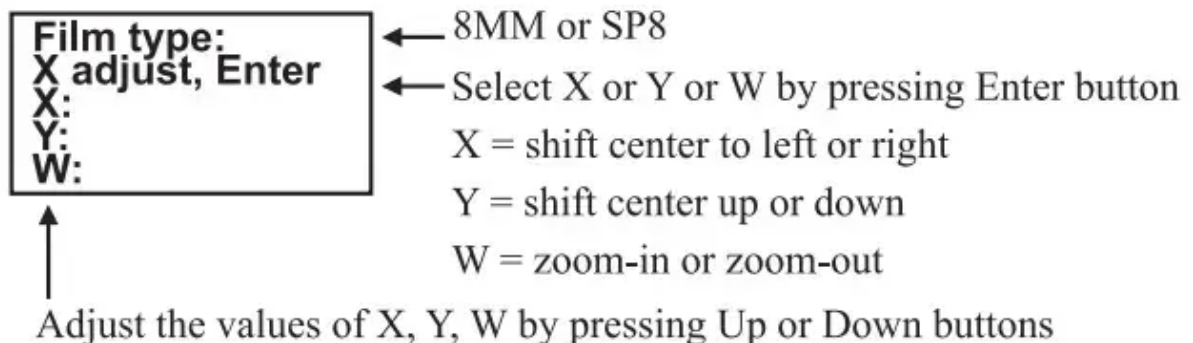


Step 5: Adjust frame to center your film

- a. Press **MENU** and use the arrow keys to find **FRAME ADJ**. Press **ENTER**.



- b. FRAME ADJ will help you find the best framing for your film. If you do not adjust the frame, part of the image might be cut off in the digitization process.
- c. Use the **ENTER** button to switch between **X, Y, and W**. **Adjust the values** of X, Y and W by pressing the **Up or Down arrow** buttons:
- X** adjusts the horizontal framing
 - Y** adjusts the vertical framing
 - W** adjusts the zoom



- d. Use the arrow buttons to adjust the values until the entire frame is centered within the screen. Try to capture the frame without the sprocket holes visible for the best image.
- e. Once you are satisfied with the framing, press **MENU** to exit.

Step 6: Digitization

- a. Select **RECORD** from the menu screen.
- b. Press **ENTER/START/STOP** to begin the digitization process.
- c. Make sure the proper film type is selected, and press **ENTER** again.
- d. The film will start to advance frame by frame as it is being digitized. You will be able to see the individual frames as they are captured on the small screen.

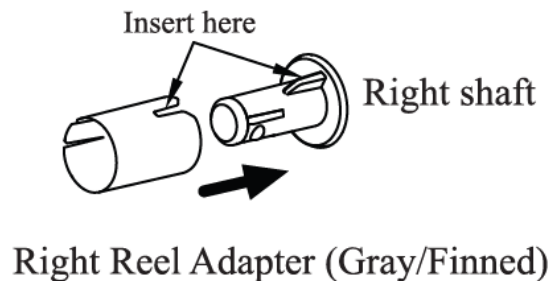
- e. **Make a note of the file number in the bottom right-hand corner of the screen. This is the name of the digital file of your movie.**



- i. You will need this number when transferring your movie to your personal storage device.
 - ii. **Note:** If you stop the recording and start it again, Wolverine will automatically create a new .mp4 file and assign it a sequential filename. For example, the first clip may be 00123.mp4, next clip 00124.mp4, etc.
 - iii. You will be able to change the name of your movie later (See Step 8).
- f. **Be patient.** It takes about 10 minutes to digitize 1 minute of film.
 - g. If necessary, when the film is almost done, be sure to carefully detach its end from the feed spool so that the film does not get caught. This allows the entire reel to be digitized. Sometimes this can be accomplished by lightly spinning the left film spool counterclockwise so that the film becomes loose. **Be gentle**, as film can be quite brittle.
 - h. Troubleshooting: If your film gets caught in the light tray while being digitized, you will need to open the film flap door, manually advance the film beyond the sticking point, and begin recording again. Remember, this will create multiple movie (mp4) files that you will need to transfer to your personal storage device at the end of your appointment.

Step 7: Rewinding your film

- a. To rewind your film, first **open the film flap door and remove film from the light tray.**
- b. **Close** the film flap door.
- c. **Remove the reels** from the film shafts and **place the full reel onto the LEFT** projector arm and the **empty reel spool onto the RIGHT** (see NOTE if using Super 8 adapter). **For rewind, mount film with sprocket holes towards you.**
NOTE: If used, gently remove the RED (no fin) endcap from the left projector arm and secure the GRAY (finned) endcap to the right projector arm.



- d. **Thread the film** according to the **dotted line** on the face of the Wolverine (below the first sprocket on the left, above other sprockets on the right) and **anchor** the end of the film into the slot in the center of the empty reel.
- e. Press the **MENU** button and navigate to the **REWIND** option using the arrows. Press **ENTER** to begin rewinding.
- f. When the film has finished rewinding, press **ENTER** again to stop before removing the reel from the film shaft.

Step 8: Transferring your movie files (.mp4 files) from the SD memory card to your personal storage device

- a. Remove the SD card from the back of the Wolverine by first **pushing the card in** to release it, then **removing** it from the device.
- b. Plug the SD card face-up into the SD reader on the “hub” that is plugged into the Mac Mini. You will know that it has been properly inserted when the **PLAYBACK** SD card icon appears on the desktop.
- c. Plug your personal storage device (USB or external hard drive) into the same “hub.”



- d. On the Mac, **open** Finder , **select the PLAYBACK SD card** from the left menu, and choose “**Open.**” Click on the **FILM SCANNER** folder, and then on the **MOVIE** folder, and you should see your **.mp4** film clips (For example, 00123.mp4, 00124.mp4).
- e. **Highlight, drag and drop your .mp4 files onto your personal storage device.** It may take from 30 seconds to a minute to copy the files to your drive.
- f. Once saved to your personal storage device, you can right click on the filename and **Rename** your file.
- g. You can also **watch your movie** by double clicking on the .mp4 file.

Step 9: Finish up and check out

- a. To **remove** the SD memory card from the “hub,” **right click** on the PLAYBACK SD card icon on the desktop and select **EJECT** “PLAYBACK.” When the PLAYBACK card icon has disappeared from the Mac desktop, you can **safely remove the memory card from the “hub.”** Place the SD card in its plastic case and return it to the tray with the other Wolverine accessories.
- b. Eject your personal storage device by **right clicking** on your drive’s icon on the Mac desktop and selecting **EJECT**. The drive is safe to remove when the icon disappears from the desktop.
- c. Don’t forget to take your film reel(s) and personal storage device with you.
- d. Check in with staff to let them know you are finished using the Wolverine.