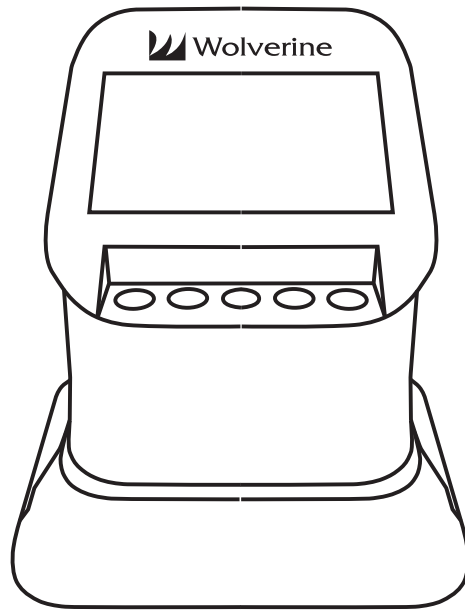




F2D Saturn

Film to Digital Converter



User Manual V1.0

Table of Contents

Introduction ...	2
Before Using F2D Saturn ...	2
Package Contents ...	4
Functions of Keys ...	4
Connect Saturn to TV to View Images on TV Screen ...	5
Getting Started...	5
1. Attach Power ...	5
2. Use Built-in Memory ...	5
3. Use SD Memory Card (Optional) ...	5
4. Delete All Files on Internal Memory or SD Card ...	6
5. Mode Selection ...	6
6. Set Film Type ...	6
7. Clean Film Dust off the LED Light Table ...	7
8. Convert Slides ...	7
9. Convert Negatives ...	8
10. Convert Film 120 ...	9
11. Adjust EV, RGB, and SHP ...	9
12. Playback Converted Image Files ...	11
13. Connect to Computer to Download Image Files ...	12
14. Download Image Files to PC and Delete the Files ...	12
Specifications ...	13
One-Year Limited Warranty (United States Only) ...	13
Choosing Wolverine & Contact info ...	Back Cover

Introduction

Thank you for purchasing **Wolverine F2D Saturn Film-to-Digital Converter**. You can take stacks of film and convert them into digital images to preserve them forever. This simple-to-use Wolverine device converts your film into high quality digital images in seconds, no computer or software is needed. Plug the F2D Saturn into an outlet or an USB port; all images are saved to internal memory or optional SD memory card. Wolverine F2D Saturn can be connected to your Windows PCs or Mac computer system to download converted and saved digital images through USB ports.

Before Using Wolverine F2D Saturn

This section provides important information that you should read before using your F2D Saturn.

- Do not allow Saturn to come into contact with water or other liquids, using Saturn when wet may result in fire or electric shock.
- Do not expose or store Saturn to extreme temperatures, humidity or vibrations, which may cause damages to Saturn.
- Under no circumstances should user try to repair or open the outer casing of Saturn.
- Warranty will be voided if Saturn is mishandled. Wolverine Data is not responsible for consequential damages, including loss of data.
- Wolverine Data has no obligation to repair, replace or issue refunds without a Return Merchandise Authorization (RMA) number and the original purchase receipt of the defective product.

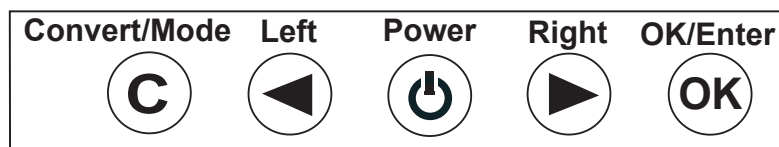
- Repairs or replacement service will not be offered to products that were misused, scratched, repaired without authorization, or any other reasons beyond the range of intended use.
- Replacement product may be either new or refurbished, provided that its functions are at least equal to that of the product being replaced.
- Wolverine Data is not responsible for any data stored on the returned product, please backup any data prior to ship back the unit.
- All out-of-warranty repairs are subjected to repair fee. Please contact your dealer or Wolverine Data for current charges.
- Wolverine Data is the product manufacturer. Any return or refund, please contact the product seller first.

Package Contents

Wolverine F2D Saturn Converter, 120 Film Adapter (#1), 127/135 Slide Adapter (#2), 135 Negative Insert, USB Power Adapter, USB Cable, Cleaning Felt Brush, User Manual.

Functions of Keys

- Power: Power on/off.
- Left and Right Arrow Keys: Highlight the selection to left/up or right/down.
- Convert/Mode: Convert film to digital.
Press Mode key one time to bring back the previous menu.
Press Mode key twice any time to go back to Home Menu.
- OK/Enter key: Confirm and enter the selection



Connect Saturn to TV to View Images on TV Screen

If your TV set equipped with HDMI port, you can view converted images on TV screen instead from the Saturn viewer. Plug HDMI cable (not included) to HDMI port located at the back of Saturn, and a HDMI port of your TV set. Change your TV set INPUT/SOURCE to the corresponding HDMI port. The viewer of Saturn will turn dark, all menu and images will appear only on TV screen.

Getting Started

1. Attach Power

Connect the included USB cable with power adapter to a wall outlet, or plug the USB cable to your computer USB port directly. Saturn turns itself off after 30 minutes of idle time.

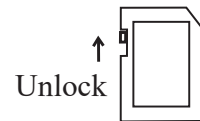
2. Use Built-in Memory

Saturn has built-in memory that can store about 80 ~ 100 digital images. After power on, if no external memory card is inserted, a **No Card** will appear on the viewer for 3 seconds.

3. Use SD Memory Card (Optional)

You can use SD memory cards, but any memory card cannot be more than **128 GB**. We recommend **16 GB or less** to speed up the operation. For Micro-SD card users, first insert the finger-nail size Micro card into the stamp-size card adapter, then insert it into Saturn, otherwise it might freeze Saturn.

Ensure the card is unlocked, and insert or remove the memory card while Saturn is powered off.



A new or used memory card should be formatted before using with Saturn. Refer to item 4.

Each 1 GB of SD memory holds about 8 hundred digital images.

4. Delete All Files on Internal Memory or SD Card

Delete All function formats/deletes all files stored in the internal memory, if SD memory card is not inserted. With external memory card inserted, **Delete All** function will erase all files on the inserted card. Make a backup if it's needed.

1. Insert SD memory card if needed.
2. Turn power on, press **Right** key to select **Delete All** then press **OK** key.
3. Press **Left** key to highlight **YES** then press **OK**.

5. Mode Selection

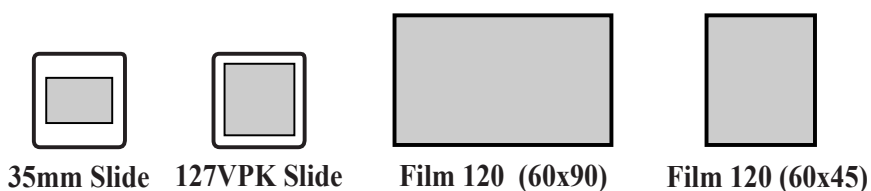
Saturn has 6 modes and are listed below. Press **Left** or **Right** keys to change mode setting then press **OK/Enter** key to execute the selection. You can always press **Mode** key one time to bring back previous menu or press **Mode** key twice to go back to **Home** menu.

- **Film Type** - To select the type of film to convert, color Negative, Slide Positive, Black & White, or Microfiche.
- **Delete All** - Deletes all files in the internal memory or the inserted SD card.
- **Convert** - Converts film to digital image. You can go to Convert mode directly if all settings remained the same as last session.
- **Playback** - Reviews or rotates converted images that stored in memory.
- **USB Upload** - Downloads converted files to PC or Mac.
- **Language** - Sets menu in English or Japanese.

6. Set Film Type

Ensure the **Film Type** setting is selected correctly, or you will see X-ray-like image on the viewer. The film type setting will remain unchanged even when Saturn is powered off.

1. At **Film Type** menu, press **OK/Enter** key.
2. Press **Left** or **Right** key to select film type, then press **OK**.
 - Color Negative -**
 - Film 120 in 4 different widths, 127VPK, 135
 - Slides Positive -**
 - Film 120 in 4 different widths, 127VPK, 135
 - Black & White -**
 - Film 120 in 4 different widths, 127VPK, 135
 - Microfiche**
3. Press **Left/Right** keys to select film type, then press **OK**.

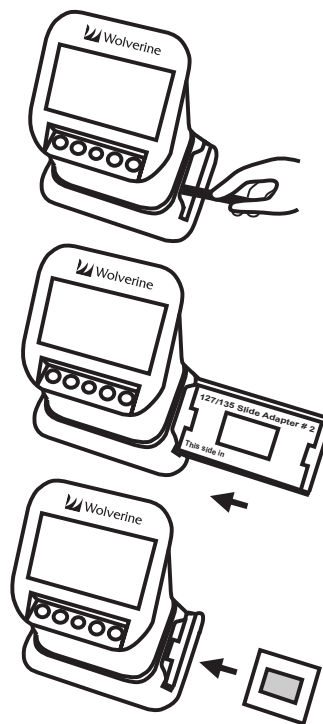


7. Clean Film Dust off the LED Light Table

For best results, use included cleaning brush with felt side down to wipe dust off the light table gently before inserting adapter.

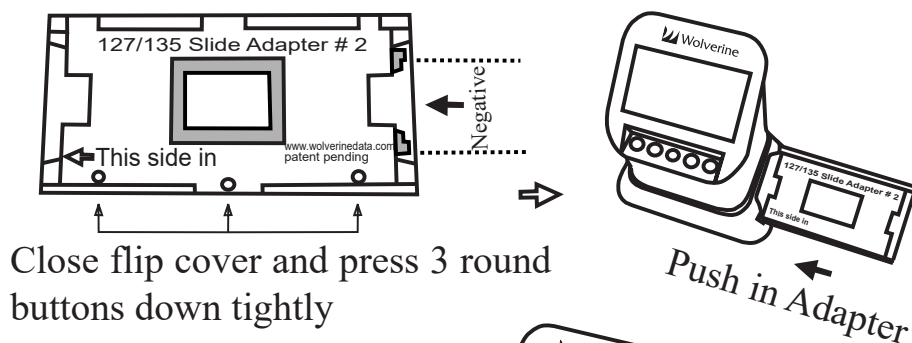
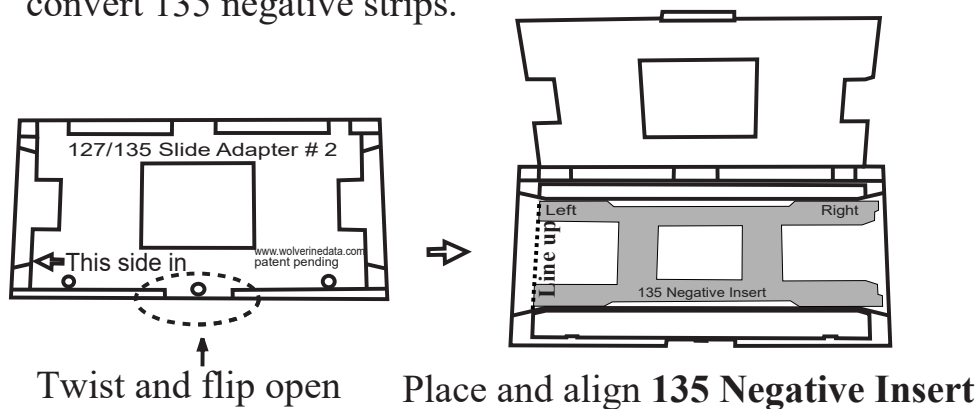
8. Convert Slides

Insert **127/135 Slide Adapter #2** from right side of the slot, and push in until stopped. Feed slides with **shiny side up** one by one until image shown on screen. Manually adjust slide alignment and press **Convert** then **OK** to save it. Feed next slide to eject the previous one, repeat **Convert** then **OK** steps to continue converting.

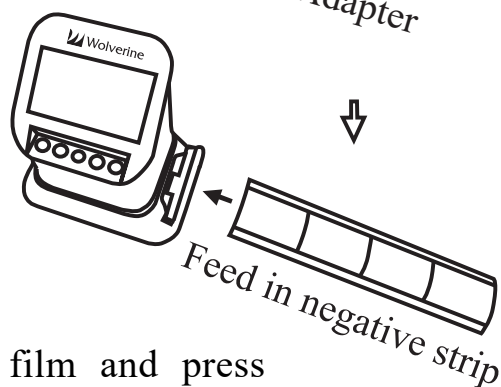


9. Convert Negatives

Use **127/135 Slide Adapter #2** with **135 Negative Insert** to convert 135 negative strips.



Push Adapter into slot from right side until stopped.
Feed and push negative strip in until an image shown on screen.



Manually adjust and align film and press **Convert** then **OK** to save image. Push negative strip to the next picture, press **Convert** then **OK** again. Repeat the steps.

10. Convert Film 120

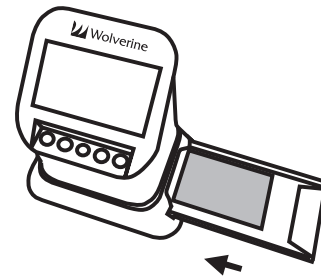
Use **120 Film Adapter #1** to convert Film 120 in different width (60x45mm, 60x60, 60x80, 60x90).

Flip open the Adapter and place the film at the center of the opening **or** feed film through right side slot.



Always center the film at window opening regardless the size/width of the film. When the film is centered, close the flap cover tightly.

Insert the Adapter with film into slot from the right side until clicks.



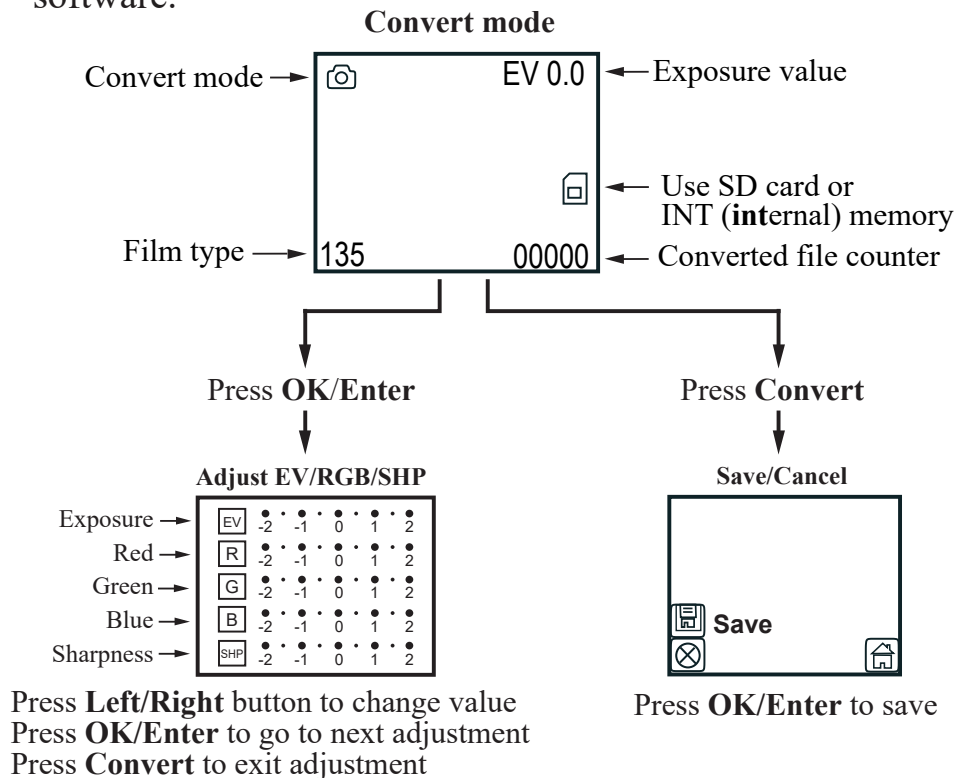
Press **Convert** then **OK** to save the image. Pull out the Adapter and place/center the next film. Insert the Adapter with film into Saturn. Repeat the steps of **Convert** then **OK** to save images.

11. Adjust EV, RGB, and SHP

At **Convert Mode**, press **OK/Enter** to adjust **EV** values (Exposure Value), **RGB** colors (Red, Green, Blue) and **SHP** (Sharpness).

Positive **EV** makes image brighter; negative **EV** makes image darker. Default value is zero. The edited values will be saved and remain unchanged until further adjustments are made. After completed adjustments, press **Convert** to exit.

Note: Each brand or batch of film might have used different chemicals which have their own characters. You can make adjustments to individual film, or download a batch of images to your computer and do enhancements with a software.

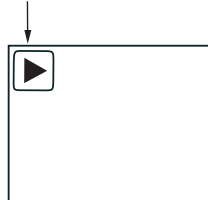


Note: If a **FULL** icon appears on the viewer, it means the memory (internal or SD) is full. After download the picture files to computer, delete all files in the memory with computer software wizard or **Delete All** on Saturn.

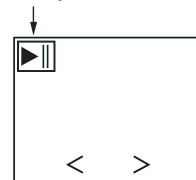
12. Playback Converted Image Files

1. Press **Left** or **Right** key to highlight **Playback icon**.
2. Press **OK/Enter** key to playback stored images as a slide show at 5 second interval per image.

Playback Mode

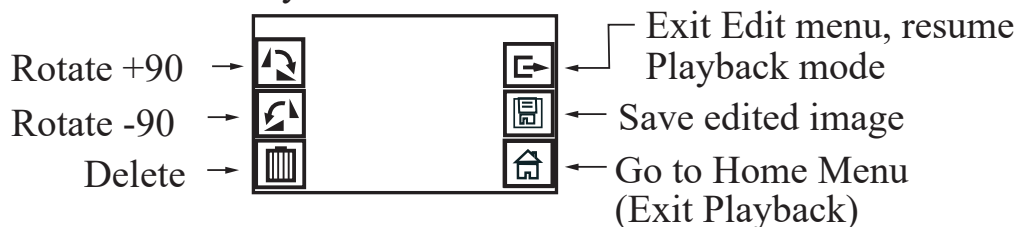


Playback in Pause



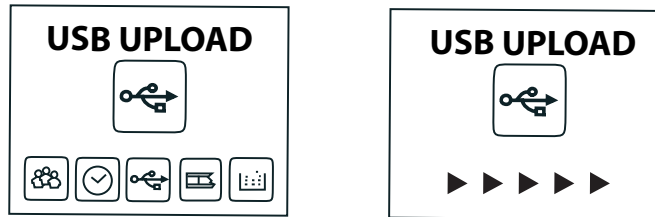
3. Press **OK** key to pause the slide show then press **Left/Right** key to advance image forward < or backward > manually.
- 4 Press **OK/Enter** key one more time to go to **Edit** menu.
5. In the **Edit** menu, highlight **Exit**, then press **OK/Enter** key to resume **Playback**.
6. After editing the image, select **Save** to save edited image in memory.
7. Highlight **Home**, press **OK/Enter** key to exit **Playback** or press **Convert** key twice to go to Home menu.

Playback/Edit Menu



13. Connect to Computer to Download Image Files

1. Insert SD memory card if not using the internal memory.
Use included USB cable to connect to computer.
2. Power on Saturn.
3. Press **Left/Right** key to highlight **USB UPLOAD**.
4. Press **OK/Enter** key to activate the USB mode.



14. Download Image Files to PC and Delete the Files

You can use Saturn as an external card reader to download converted image files to your computer. It's a better practice to download files to different folders each time.

MAC system:

iPHOTO will pop out. If not, launch iPHOTO and import the files.

Windows PC system:

A Microsoft Wizard Window will pop out. Follow the steps to copy picture files to your PC.

All converted image files will be named in alpha-numerical order, such as IMAG0001.JPG, IMAG0002.JPG etc, and stored under the directory of **DCIM/100MEDIA**.

After files were copied to your computer, you can delete the files in the memory card or internal memory using delete functions on the computer, or **Delete All** function on Saturn.

Specifications

Display: Color 4.3" TFT LCD

Exposure Control : Automatic / Manual (-2.0 EV~ +2.0 EV)

White Balance : Automatic

Resolution : 20 Mega pixels

Film type : 135, 127VPK, Film 120, Microfiche

Picture Effects : Negative, Slide, Black and White

File format : JPEG

HDMI out: YES

Built-in memory : 128M

External memory card: SD card up to **128GB** (Maximum)

Interface: USB 2.0

Power Supply: DC 5V Adapter/ USB Port

Language: English, Japanese

Support system: Windows XP/vista/Windows7/8/10 Mac10.7.3

Product Size: 7.0" x 7.6" x 4.6" (W177 x H192 x D118 mm)

Weight: 1.3 lb (580g)

One-Year Limited Warranty (United States Only)

The limited warranty term is one year beginning on the date of invoice, as further described in the following text. This limited warranty does not cover damage due to external causes, including accident, abuse, misuse, problems with electrical power, servicing not authorized by Wolverine Data. The warranty extends only to the first consumer purchaser, and is not transferable.

To request limited warranty service, you must contact Wolverine Data within the limited warranty period.

Wolverine Data will then issue a RMA (Return Material Authorization) number. You must ship the product back to Wolverine Data in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk of loss or damage during shipment. Wolverine Data will ship the repaired or replacement products to you freight prepaid if you use an address in the continental United States. Shipments to other locations will be made freight collect.

To obtain service, you must include: (a) a copy of your receipt or other comparable proof of purchase; (b) a written description of the problem; (c) your name, address and telephone number; (d) Write the RMA number on the outside shipping packaging.

NOTE: Wolverine Data uses new or reconditioned parts made by various manufacturers in performing limited warranty repairs and building replacement products. If Wolverine Data repairs or replaces a product, its limited warranty term is not extended.

Warranty Exclusions

Normal Wear and Tear

Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage.

Abuse and Misuse

Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like,

extreme heat, or food; (c) use of the products or accessories for commercial purposes or subjecting the product or accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Wolverine Data, are excluded from coverage.

Use of Non-Wolverine Converter's Accessories

Defects or damage that results from using Non-Wolverine Converter's accessories or other peripheral equipment are excluded from coverage.

Unauthorized Service or Modification

Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by someone other than Wolverine Data are excluded from coverage.

Altered Products

Product or accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that shown evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Wolverine Data parts or accessories, are excluded from coverage.

Thank you for choosing Wolverine

Having Difficulty Using This Product
Please try the following options:

- Call us at 949-458-9888 M-F
9:00-5:00 Pacific Time
- We strongly recommend you to
visit our web site,
www.wolverinedata.com/support
to watch tutorial videos
- E-mail or write to our technical
support staff at
support@wolverinedata.com or
address: 9939 Muirlands Blvd.
Irvine, CA 92618

Join our Mailing List to receive our exclusive coupon offers