

Wolverine

F2D Mighty

Film to Digital Converter

User Manual v1.0

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Introduction

Thank you for purchasing **Wolverine F2D Mighty Film to Digital Converter**. You can take stacks of film and convert them into digital images to preserve them forever. Wolverine has created a simple-to-use device to convert your film into high mega pixel digital images in seconds. No computer or software is needed. Plug the F2D Mighty into an outlet or an USB port; all images are saved to memory or optional SD/SDHC memory card. The F2D Mighty can be connected with your Windows PCs or Mac computer system to upload converted and saved digital images through USB ports.

Before Using F2D Mighty

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

- Do not drop or handle too aggressively as it may cause damage to the device.
- Do not allow the device to come into contact with water or other liquids. In the event that water or other liquids enter the interior,

immediately turn off the device. Continued use of the device may result in fire or electric shock.

- Do not handle the device with wet hands. Doing so may cause electric shock and damages to the unit.
- Do not place the device close to any equipment generating strong electromagnetic fields. Exposure to strong magnetic fields may cause malfunction or data corruption.
- Do not expose the device to extreme temperatures, humidity or vibrations, which may cause damages to the device.
- Do not open the outer casing. This unit does not require batteries or contain user serviceable parts.
- Do not move or disconnect the device from the computer while the device is reading/writing data. This may cause damages to the data and/or the device.
- Under no circumstances should user try to repair the device. Doing so may cause electric shock and void the warranty.
- Warranty will be voided if the device is mishandled. Please take care in handling the device. Wolverine Data is not responsible for

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consequential damages, including loss of data. Always back up all data. For full warranty statement see the end of this manual.

- 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.

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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 the videos including:
 1. F2D Mighty **video manual**
 2. Easy way to open the F2D negative adapter
 3. How to convert Super 8 and recreate the movieE-mail or write to our technical support staff at
- support@wolverinedata.com or our address: 9939 Muirlands Blvd. Irvine, CA 92618

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Package Contents

F2D Mighty converter
35 mm slide adapter
35 mm negative adapter
110 negative insert
110 slide insert
8mm/Super8 insert
USB power adapter
USB cable
cleaning brush

Ordering Accessories

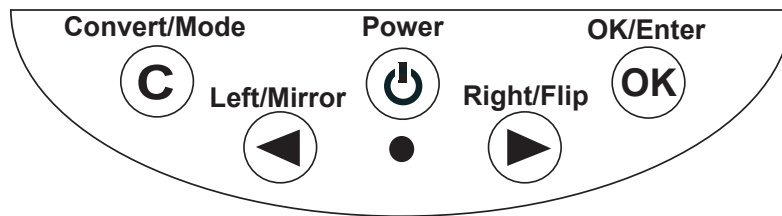
Please call us at **949-458-9888** or visit Wolverine Data web site to order accessories. Go to www.wolverinedata.com, click **Accessories** under the pull down menu of tab **PRODUCT**, click **Wolverine F2D**. Select TV-out cable (see picture, Code: F2D14TV) or other related accessories.



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Functions of Keys

- **Power:** Power on/off.
- **Left/Mirror and Right/Flip:** Highlight the selection to left/up or right/down; mirror or flip image in "Convert" mode.
- **Convert/Mode:** Convert film to digital image in "Convert" mode. Press Mode key one time to bring back the previous menu. Press Mode key twice any time to go back to Home Menu (start menu).
- **OK/Enter key:** Confirm and enter the selection



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Connect F2D Mighty to TV Screen to View Images on TV

If your TV set equipped with RCA composite ports that accept video-in signal, you can view converted images on TV screen instead from the F2D Mighty viewer.

Change your TV set INPUT to appropriate source. Plug the 3.5 mm end of the RCA cable to TV OUT port located at the back of F2D Mighty, and plug RCA end (**white** or yellow connector) to **VIDEO-IN** (yellow) port of the TV set. The viewer of the F2D Mighty will turn dark, menu and images will appear only on TV.

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Getting Started

1. Attach Power

Connect the cable to included power adapter. Plug the power adapter to a wall outlet, or plug cable to computer USB port directly. F2D Mighty turns off itself after 30 minutes of idle time.

2. Use Built-in Memory

F2D Mighty has built-in memory that stores about 35 ~ 40 digital images. After power on, a "No card" icon will appear on the viewer for 3 seconds if an external memory card is not inserted.

3. Use Optional SD/SDHC Memory Card

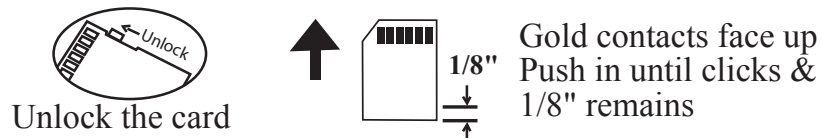
Insert a SD/SDHC memory card (Max. 32 GB) **before** powering on the F2D Mighty. **Do not use SDXC or MicroSD memory card with card adapter** on F2D Mighty. It could freeze the device.

Ensure the card is unlocked, gently insert it with **gold fingers facing up until it clicks**. Power off the F2D Mighty before removing the memory card. Eject the card by gently pushing in the card, instead of pulling out directly.

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A new memory card or an used camera card should be formatted before using with the F2D Mighty. Refer to item 4.

Each 1 GB of SD/SDHC memory holds about 500-700 digital images. The maximum accepting capacity of a SD/SDHC Memory Card is **32 GB**, otherwise it will freeze the F2D Mighty.



4. Format/Delete All Internal Memory or SD/SDHC Card

This function formats/deletes all files stored in the internal memory if SD/SDHC memory card is not inserted. With external memory card inserted, the function of "Delete All" would erase all files on the inserted card. Caution, any and all existing files would be deleted after the procedure of "**Delete All**". Make a backup if it's needed.

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

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5. Mode Selection

F2D Mighty has 7 modes and are listed below. Press **Left** or **Right** keys to change the mode then press **OK/Enter** key to enter the selection. You can always press **Mode** key to bring back the previous menu or press **Mode** key twice to go back to **Home** menu.

- **Film Type** - Selects type of film to convert, refer to **Film Type Table** on page 13
- **Delete All** - Deletes all files in the internal memory or the inserted SD/SDHC 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 all converted images that stored in memory
- **USB Upload** - uploads converted image files to PC or Mac
- **Language** - Sets menu in English or Japanese

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6. Set Film Type

Ensure the **Film Type** setting is correct, or you will see X-ray-like image on the viewer. The film type setting will remain unchanged even when F2D Mighty is powered off.

1. At **Film Type** menu, press **OK/Enter** key.
2. Press **Left** or **Right** key to highlight **Slides Positive** or **Color Negatives** or **Movie Positive** or **Black & White** then press **OK**.
3. Press **Left** or **Right** key to select the type of film then press **OK**.

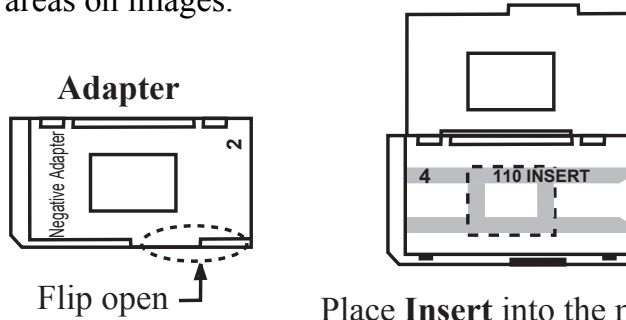
7. Select Proper Adapter or/and Place Insert

Use proper **Adapter** or/and **Insert** to convert your film, refer to **Film Type Table** on page 13.

Flip open the proper Adapter then place the insert into the middle of window opening, align the 4 dimples underneath (see page 12). Snap close all 3 catches along the bottom edge tightly to avoid jamming when pushing adapter into the F2D Mighty.

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Warning: Using wrong adapter or/and insert will result cropped or black areas on images.



Place **Insert** into the middle of window opening

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Film Type Table

Film Type	Format	Adapter to Use	Insert to Use
Slide Positive	127VPK	Slide Adapter (1)	---
	135	Slide Adapter (1)	---
	126KPK	Slide Adapter (1)	---
	110	Slide Adapter (1)	110 Slide Insert
Color Negative	Microfiche	Slide Adapter (1)	---
	127VPK	Negative Adapter (2)	---
	135	Negative Adapter (2)	---
	126KPK	Negative Adapter (2)	---
Black & White	110	Negative Adapter (2)	110 Insert (4)
	127VPK	Negative Adapter (2)	---
	135	Negative Adapter (2)	---
	126KPK	Negative Adapter (2)	---
Movie Positive	Super8	---	8mm/Super8 Insert
	8 mm	---	8mm/Super8 Insert

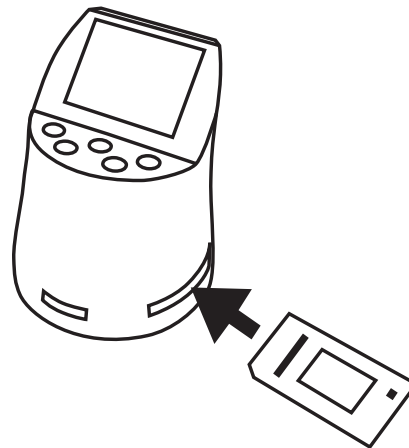
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8. Clean Film Dust and Insert Proper Adapter into Slot

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



Insert film Adapter with **two stick-out stoppers face down or the embossed wording face up**. Gently push adapter from the right side slot, **right to left**, until stopped.



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For 8mm/Super8 Insert gently push the Insert from front to back until stopped.

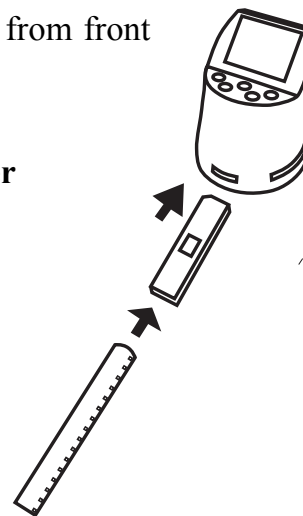
9. Prepare Film and Feed the Film into Adapter

Use fine soft cloth or canned air (not included) to wipe or blow off any dust on the film before feeding them into the Adapter. Gently feed the film from the right side of adapter.

In general, feed the film in right side up, and **shiny side up** as follows:

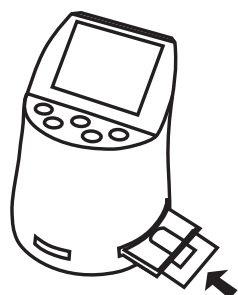
Slides: printed logo or brand name facing down.

8mm/Super 8: perforated holes on the right.



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Note: to convert slides, feed the first slide in the adapter, then use a second and third slide to push the preceding ones through the adapter. Align the picture on the viewer properly before converting. Continue to feed slides through the adapter one by one. Ensure the Film Type setting is correct, or you will see X-ray-like image on the viewer. The film type setting will remain unchanged even when power off. For detail process, please go to our web site to view our **video manual**, refer to web site info on page 4.



Slide

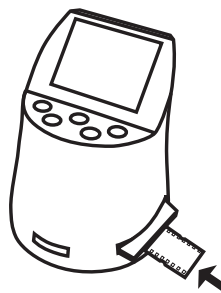
1. Put Slide Adapter into F2D Mighty.
2. Feed and push each *slide* until image align properly on the viewer.

Feed in slide one by one

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Negative

1. Put Negative Adapter into F2D Mighty.
2. Feed *negative* film and check the image



10. Edit Image Orientation

At Convert Mode, press **Mirror** key to mirror the image **left to right**, or **Flip** key to flip the image **upside down**. Or you can also rotate the images 90 degrees while viewing at Playback mode later.

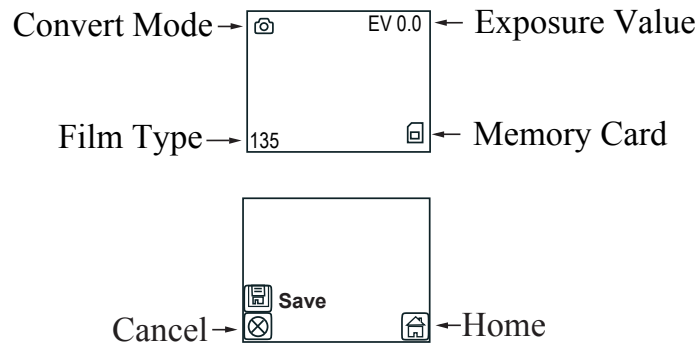
11. Change Image EV (Exposure Value) and RGB Color

At Convert Mode, press **OK/Enter** key to change **EV** (Exposure Value), **R** (red), **G** (green), and **B** (blue) color components. The default value of EV is 0.0, change to positive(+) to make image brighter, or negative(-) to make image darker. You can also adjust R, G, and B color components to enhance the image quality of the

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film. Press **Left or Right** key to adjust the values, then press Enter key to move on to the next color component. The edited value will remain unchanged until further adjustments were made.

Note: Each brand or batch of film development process used different chemicals and had their own characters. You can make adjustments individually, or upload image files to a computer to do batch enhancements with a software.

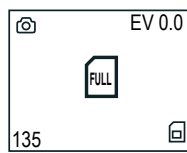


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12. Convert Film to Digital File

1. At Convert Mode, press **Convert** key to convert image to digital.
2. Press **OK** key to save the converted digital image to memory. Or press **Left or Right** key to select **Cancel** (not saved).
3. Feed another slide or push the negative film to left side to convert the next film.

Note: If a red rectangle "FULL" icon appears in the center of the viewer, means the memory is full. Upload the files to computer, refer to item 14 and 15 on page 22 and 23. Then delete all files in the memory through computer software wizard or F2D Mighty, refer to item 4 on page 9.



Memory Full

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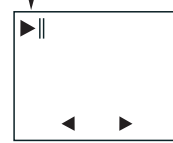
13. Playback and Edit Converted Image Files

1. Press **Left** or **Right** key to highlight "**Playback**".
2. Press **OK/Enter** key to playback saved files on the viewer at 2 second intervals.

Playback Mode



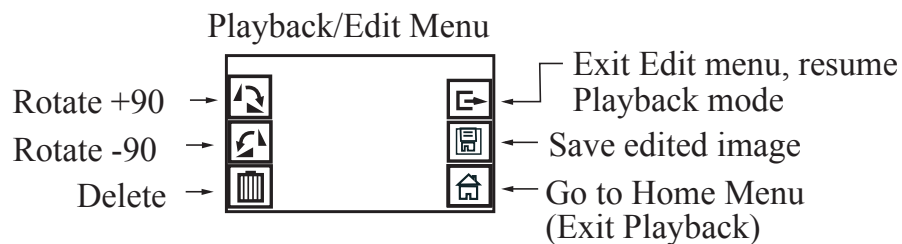
Playback in Pause



3. Press **OK/Enter** key to pause slide show. Press **Left/Right** key to advance image forward or backward manually.
4. Press **OK/Enter** key one more time to go to **Edit** menu.
In the **Edit** menu, highlight **Exit**, then press **OK/Enter** key to resume **Playback**.

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After the image is edited, select **Save** icon to save edited image. The edited image will replace the original image in memory. Highlight **Home** icon, press **OK/Enter** key to exit **Playback** mode, or press **Convert** key two times to go to Home menu.

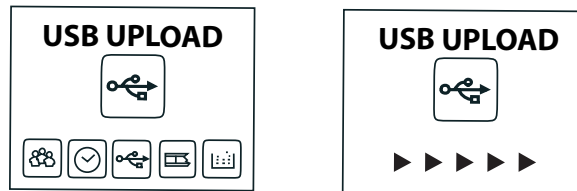


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14. Connect F2D Mighty to Computer to Upload Image Files

For people don't have a card reader on computer, you can use F2D Mighty as an external card reader for your computer.

1. Plug small end of the USB cable to F2D Mighty and the big end to USB port on the computer.
2. Insert SD/SDHC memory card if not using the internal memory.
3. Power on F2D Mighty.
4. Press **Left/Right key** to highlight "USB UPLOAD".
5. Press **OK/Enter key** to activate the USB mode.



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15. Upload Image Files to PC and Delete the Uploaded Files

You can use F2D Mighty as an external card reader to upload converted image files. It's a better practice to upload files to different folders each time to avoid files superseding.

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 PICT0001.JPG, PICT0002.JPG, PICT0003.JPG etc, and stored under the directory of **DCIM/100COACH**.

After files were copied to your computer, you can delete the files on the card using functions on the computer, or F2D Mighty Delete All function. If you leave the files in the memory card, newly converted files will be named consecutively in alpha-numerical order, otherwise it starts from PICT0001.

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Specifications

Lens: F/3.48, f=5.12

LCD:2.4 inch LTPS LCD Display

External memory: SD/SDHC card

Exposure: Auto

Color balance: Auto

Resolution: 20 MP

Data conversion: 24 bits per color channel

Convert method: Single pass

Light source: backlight

Power: Powered from USB/5V adapter

Interface: USB 2.0

Dimension: 104.5 x 94.1 x 135.3 mm

Weight: 328 g

Language: English and Japanese

Caution: This device complies with part 15 of the FCC Rules. Changes of modifications not expressly approved by Wolverine Data could void the user 's authority to operate the equipment.

One-Year Limited Warranty (United States Only)

Wolverine Data manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry-standard practices. Wolverine Data warrants that the hardware products it manufactures will be free from defects in materials and workmanship. The limited warranty term is one year beginning on the date of invoice, as further described in the following text.

Damage due to shipping the product is covered under this limited warranty. Otherwise, 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, usage not in accordance with product instructions, failure to perform required preventive maintenance, and problems caused by use of parts and components not supplied by Wolverine Data.

The warranty extends only to the first consumer purchaser, and is not transferable. This limited warranty does not cover any items that are in one or more of the following

categories: software; external devices (except as specifically noted); accessories or parts added to a Wolverine Data system after the system is shipped from Wolverine Data or its resellers; accessories or parts that are not installed in the Wolverine Data factory. During the one-year period, beginning on the invoice date, Wolverine Data will repair or replace products returned to Wolverine Data's facility.

To request limited warranty service, you must contact Wolverine Data within the limited warranty period. Appropriate telephone number for customer assistance refer to page 4. If limited warranty service is required, Wolverine Data will 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, where applicable. 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 address and telephone number; (d) Write the RMA number on the outside shipping packaging.

NOTE: Wolverine Data uses new and 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 the use of 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, instillation, 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 show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Wolverine Data parts or accessories, are excluded from coverage.

Other Limitations

Any implied warranties, including without limitation the implied warranties of merchantability and fitness for a particular purpose, shall be limited to the duration of this limited warranty, otherwise the repair, replacement or refund as provided under this express limited warranty is the exclusive remedy of the consumer, and is provided in lieu of all other warranties, express or implied. In no event shall wolverine data be liable, whether in contract or tort (including negligence) for damages in excess of the purchase price of the product, accessory or software, or for any indirect, incidental, special or consequential damages of any kind, or loss of revenue or profits, loss of business, loss of information or data, software or application with the ability or inability to use the product, accessories or software to the full extent these damages may be disclaimed by law. Some states (or jurisdictions) do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

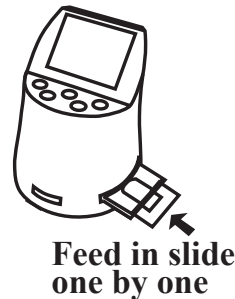
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Thank you for choosing Wolverine

Please call us at **949-458-9888** M-F 9:00-5:00 Pacific Time or watch **video manual** at www.wolverinedata.com/support

Quick Start

1. Attach power cord
2. Insert SD/SDHC memory card - Optional step
3. Turn on F2D Mighty
4. Press **Left or Right and OK** keys to set film type
5. Insert proper **Adapter** from right side slot
6. **Feed** the film into the right side of Adapter
7. Edit image orientation, EV and RGB if required - Optional step
8. Press **Convert** key to convert film to digital
9. Press **OK** key to save image
10. **Feed** in the next film, repeat converting process



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