Table of Contents
Introduction   ... 1
Before Using the Converter   ... 1
Having Difficulty Using This Product   ... 4
Package Contents   ... 5
Ordering Accessories   ... 5
Functions of Keys   ... 6
Connect F2D Titan to TV Screen   ... 7
Getting Started   ... 8
  1. Attach Power   ... 8
  2. Use Built-in Memory   ... 8
  3. Use Optional SD/SDHC Memory Card   ... 8
  4. Format/Delete All Internal Memory or the SD/SDHC Card   ... 9
  5. Mode Selection   ... 10
  6. Set Film Type   ... 11
  7. Select Film Adapter or/and Insert   ... 12
       Film Type/Film Adapter/Insert Table   ... 13
Introduction
Thank you for purchasing Wolverine  F2D Titan Film to Digital Converter. You can take stacks of film and convert them into digital images to preserve them forever. This Wolverine simple-to-use device converts your film into high quality digital images in seconds, no computer or software is needed. Plug the F2D Titan into an outlet or an USB port; all images are saved to internal memory or optional SD/SDHC memory card. The F2D Titan can be connected to your Windows PCs or Mac computer system to upload converted and saved digital images through USB ports.

Before Using F2D Titan
This section provides important safety information that you should read before using your F2D Titan.

- 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 liquids enter the interior,
turn off the device immediately, continue using 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 that generates 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 nor contain user serviceable parts.
- Do not move or disconnect the device from power source or 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 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.
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 videos including:
  1. F2D Titan video manual
  2. Easy way to open the F2D negative adapter
  3. How to convert 8mm / Super 8 film and recreate the movie
E-mail or write to our technical support staff at
- support@wolverinedata.com or
our address: 9939 Muirlands Blvd. Irvine, CA 92618

Package Contents
F2D Titan converter
35 mm slide adapter (#1)
35 mm negative adapter (#2)
110 negative insert (#4)
110 slide insert (#5)
8mm/Super8 insert (#6)
USB power adapter
USB cable
Cleaning brush
User manual

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 HDMI cable or other related accessories.
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 Titan to TV Screen to View Images on TV

If your TV set equipped with HDMI port, you can view converted images on TV screen instead from the F2D Titan viewer. Plug HDMI cable (optional item) to HDMI port located at the back of F2D Titan, and a HDMI port of your TV set. Change your TV set INPUT / SOURCE to HDMI 2 or HDMI 3. The viewer of the F2D Titan will turn dark, menu and images will appear only on TV.
Getting Started

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

2. Use Built-in Memory
   F2D Titan has built-in memory that can store about 35 ~ 40 digital images. After power on, a "No card" icon will appear on the viewer for 3 seconds if no external memory card is inserted.

3. Use Optional SD/SDHC Memory Card
   Insert a SD/SDHC memory card (Max. 32 GB) before power on the F2D Titan. Do not use SDXC or MicroSD memory card with card adapter on F2D Titan. It might freeze the device.
   Ensure the card is unlocked, gently insert it with gold fingers facing up until it clicks. Power off the F2D Titan before removing the memory card. Eject the card by gently pushing in the card, instead of pulling out directly.

A new memory card or an used camera card should be formatted before using with the F2D Titan. 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 Titan.

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" will 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.
5. Mode Selection
F2D Titan has 7 modes and are listed below. Press Left or Right keys to change the mode then press OK/Enter key to execute 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 Covert 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

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 Titan 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.

<table>
<thead>
<tr>
<th>Slides</th>
<th>35mm Slides</th>
<th>110 Slides</th>
<th>110 Slides</th>
<th>126 Slides</th>
<th>127 Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount</td>
<td>2&quot; x 2&quot;</td>
<td>2&quot; x 2&quot;</td>
<td>1&quot; x 1&quot;</td>
<td>2&quot; x 2&quot;</td>
<td>2&quot; x 2&quot;</td>
</tr>
<tr>
<td>Film size</td>
<td>24mm x 36mm</td>
<td>13mm x 17mm</td>
<td>13mm x 17mm</td>
<td>28mm x 28mm</td>
<td>40mm x 40mm</td>
</tr>
</tbody>
</table>
7. Select Film Adapter or/and Place Insert

Use proper Adapter or/and Insert to convert your film, refer to **Film Type/Film Adapter/Insert 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 Titan.

**Warning:** Using wrong Film Adapter or/and Insert will result cropped or black areas on images.

![Film Adapter Diagram]

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

<table>
<thead>
<tr>
<th>Film Type</th>
<th>Format</th>
<th>Film adapter &amp; number</th>
<th>Insert &amp; number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slide Positive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide Positive</td>
<td>127VPK</td>
<td>Slide Adapter (1)</td>
<td>---</td>
</tr>
<tr>
<td>Slide Positive</td>
<td>135</td>
<td>Slide Adapter (1)</td>
<td>---</td>
</tr>
<tr>
<td>Slide Positive</td>
<td>126KPK</td>
<td>Slide Adapter (1)</td>
<td>---</td>
</tr>
<tr>
<td>Slide Positive</td>
<td>110</td>
<td>Slide Adapter (1)</td>
<td>110 Slide Insert (5)</td>
</tr>
<tr>
<td>Color Negative</td>
<td>Microfiche</td>
<td>Slide Adapter (1)</td>
<td>---</td>
</tr>
<tr>
<td>Color Negative</td>
<td>127VPK</td>
<td>Negative Adapter (2)</td>
<td>---</td>
</tr>
<tr>
<td>Color Negative</td>
<td>135</td>
<td>Negative Adapter (2)</td>
<td>---</td>
</tr>
<tr>
<td>Color Negative</td>
<td>126KPK</td>
<td>Negative Adapter (2)</td>
<td>---</td>
</tr>
<tr>
<td>Color Negative</td>
<td>110</td>
<td>Negative Adapter (2)</td>
<td>110 Insert (4)</td>
</tr>
<tr>
<td>Color Negative</td>
<td>APS</td>
<td>Slide Adapter (1)</td>
<td>110 Slide Insert/APS (5)</td>
</tr>
<tr>
<td>Black &amp; White</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black &amp; White</td>
<td>127VPK</td>
<td>Negative Adapter (2)</td>
<td>---</td>
</tr>
<tr>
<td>Black &amp; White</td>
<td>135</td>
<td>Negative Adapter (2)</td>
<td>---</td>
</tr>
<tr>
<td>Black &amp; White</td>
<td>126KPK</td>
<td>Negative Adapter (2)</td>
<td>---</td>
</tr>
<tr>
<td>Black &amp; White</td>
<td>110</td>
<td>Negative Adapter (2)</td>
<td>110 Insert (4)</td>
</tr>
<tr>
<td>Movie Positive</td>
<td>Super8</td>
<td>---</td>
<td>8mm/Super8 Insert (6)</td>
</tr>
<tr>
<td>Movie Positive</td>
<td>8 mm</td>
<td>---</td>
<td>8mm/Super8 Insert (6)</td>
</tr>
</tbody>
</table>
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.

**Slide Adapter or Negative Adapter:**
Insert the Adapter with the embossed wording facing up. Gently push the adapter from the right side slot, **right to left**, until stopped.

**8mm/Super8 Insert:**
Insert it with the embossed wording facing up. Gently push the Insert from front to back until stopped.

**APS:**
1. Place Slide Insert (#5) in Slide Adapter (#1)
2. Insert the Adapter into Titan.

9. Prepare Film and Feed the Film into Adapter or Insert
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.**

**Slides:**
1. Put Slide Adapter (#1) into F2D Titan.
2. Feed slides with **shiny side up** or printed logo/brand name facing down.
3. Feed slides one by one. Use second slide and third slide to push the preceding ones until image align properly on the viewer before converting.

**Note:** 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.
Negative:
1. Put Negative Adapter (#2) Insert into Titan.
2. Feed negative film and check the image from the viewer and adjust position accordingly.

APS:
1. Place Slide Insert (#5) in Slide Adapter (#1).
2. Insert the Adapter into Titan.
3. Feed APS film and check the image from the viewer and adjust position accordingly.
   Note:
   You can go to YOUTUBE (www.youtube.com/watch?v=MniXz1VvoYc) to watch the video on how to get your negatives out of an APS cassette.

8mm/Super 8:
Insert the film with perforated holes on the right side. Go to www.wolverinedata.com/support to watch the video of Converting Super 8 Movies into Digital.

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.

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 Red, Green, and Blue color components to enhance the image color of the film. Press **Left or Right** key to adjust the values, then press **OK/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 have their own characters. You can make adjustments individually, or upload image files to a computer to do batch enhancements with a software.

![Diagram](Convert mode - Exposure value - Memory card inserted - Converted file counter)

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 picture from right side to left side to convert the next film.

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

![Memory Full](Memory Full)
13. Playback 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.

   ![](image1.png)

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 **Playback** menu.

5. In the **Playback** menu, highlight **Exit**, then press **OK/Enter** key to resume **Playback**. Or highlight **Delete** icon to erase the picture file. Or highlight **Home** icon, press **OK/Enter** key to exit **Playback** mode, or press **Convert** key two times to go to Home menu.

   ![](image2.png)
14. Connect F2D Titan to Computer to Upload Image Files
For people who don't have a card reader on computer, you can use
F2D Titan as an external card reader for your computer.
1. Plug small end of the USB cable to F2D Titan and the big end to
   USB port on the computer.
2. Insert SD/SDHC memory card if not using the internal memory.
4. Press Left/Right key to highlight "USB UPLOAD".
5. Press OK/Enter key to activate the USB mode.

15. Upload Image Files to PC and Delete the Uploaded Files
You can use F2D Titan as an external card reader to upload
converted image files. It's a better practice to upload 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 PICT0001.JPG, PICT0002.JPG, PICT0003.JPG etc, and
stored under the directory of DCIM/100PHOTO.
After files were copied to your computer, you can delete the files
on the memory card using functions on the computer, or F2D Titan
Delete All function.
Specifications
Lens: F/3.48, f=5.12
LCD: 4.3" TFT LCD
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: LED backlight
Power: Powered from USB/5V adapter
Interface: USB 2.0
Dimension: 115 x 99 x 169 mm
Weight: 390 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.

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

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