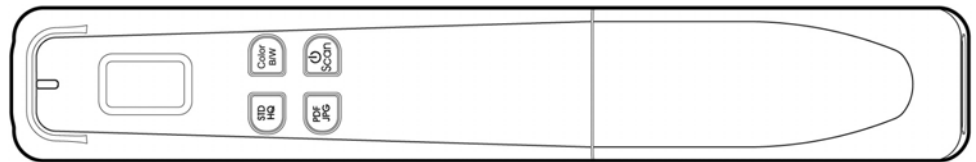# Hand-Held Scanner

User's Manual

Regulatory model: HF-1408B

Avision Inc.

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Disposal of Waste Equipment by Users in Private Union

This symbol on the product or on its packaging indicates that the product can not be disposed of with your other household waste. Instead it should be sent to appropriate facilities for recovery and recycling in an effort to protect human health and the environment. Fore more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

FCC Radio Frequency Interference Statement

This product has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.   The FCC Class B limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your point of purchase or service representative for additional suggestions.

$C\epsilon$

European Union Regulatory Notice

Products bearing the CE marking comply with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- Restriction of the use of certain hazardous substances (RoHS) Directive 2011/65/EU

This product satisfies the Class B limits of EN55022, EN55024, safety requirements of EN 60950 and ROHS requirements of EN50581.

*This machine is certified as Class 1 LED product. This means that this machine does not produce hazardous laser radiation.

Table of Contents

1.   Overview

1.1   Introduction

Congratulations on your purchase of the portable handheld scanner. With this scanner, you can scan and store your photos or documents directly to a micro SD^{TM} card without any computer. Simply turn on the scanner, press the Power/Scan button to start and slide the scanner on the surface of your document and press the Power/Scan button again to stop. The scanned image is stored into your micro SD card.

Before you install and operate the product, please take a few minutes to read through this manual.   It provides proper instructions for you to install, operate and maintain the product. The following figure indicates the package contents.   Please check all the items against your checklist.   If you do not receive all the items, please contact your authorized local dealer immediately.
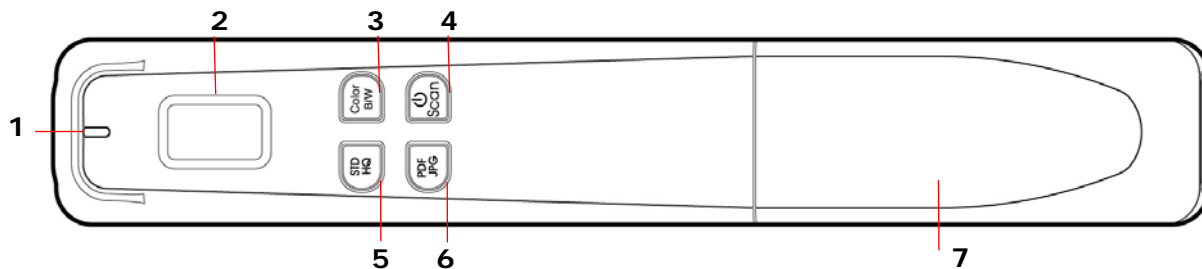
1.2   Package Contents

Scanner	Carry Bag	Online Registration Notice
Quick Start Guide	USB Cable	Calibration Sheet

Note:
- Retain the scanner box and packing materials in case you may use them for shipping purposes.
- Please register the product on our web site at http://www.avision.com to have complete support.

1.3   Top View

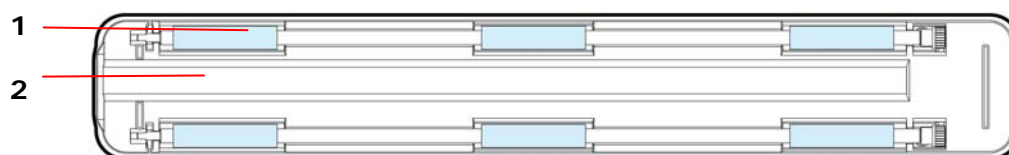| Item	Name	Description
1	**System indicator light**	Indicates the operating/warning status of the scanner.
2	**LCD display**	Displays battery status and scan settings.
3	**Color selector**	Press to choose Color or Black and white
4	**Power/Scan button**	Press to power on, press again to start a scan and end a scan.
5	**Resolution selector**	Press to choose STD (300 dpi), HQ (600 dpi), or STD HQ (1200 dpi).
6	**File format selector**	Press to choose JPEG or PDF.
7	**Battery compartment**	Slide to remove the cover.

1.4   Rear View
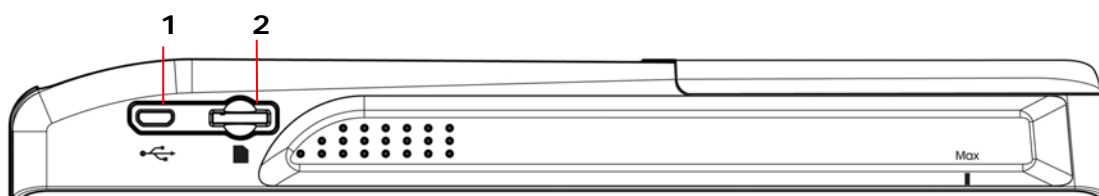
| Item	Name	Description
1	**USB port**	Used to plug the micro end of the USB cable to connect to PC for power charging or images transferring.
2	**Memory card slot**	Used to insert a memory card.

1.5   Bottom View

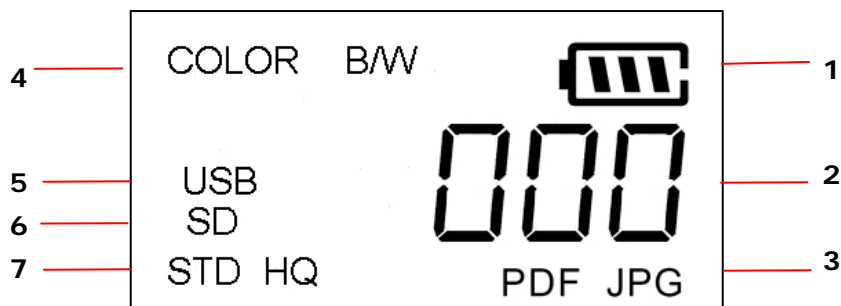| Item	Name	Description
1	**Sensor rollers**	The rollers are sensors and should only be rolled in one direction. Do NOT roll back and forth while scanning, except during calibration.
2	**Glass**	While rolling scanner over a document, the optical sensor in the glass reads and scans the image.

1.6　Scanner Indicator Light

Scanner
Indicator
Light
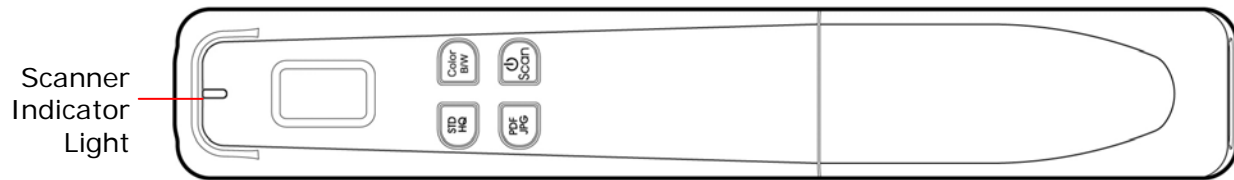
Status	Indication
Off	Scanner is off or scanner is on and ready for use
Orange briefly	Powering on for initialization
Green, steadily on	Scanning in progress in STD mode (300 dpi)
Orange, steadily on	Scanning in progress in HQ mode (600 dpi)
Orange, flashing	Scanning in progress in STD HQ mode (1200 dpi)
Green or Orange flashing	Processing scanned image
Red, flashing	No SD card, SD card full, card error, no scan performed after initiating wand scan mode, or low battery

1.7 LCD Display

COLOR B/W [battery icon]

4 — 1
5 — USB — 2
6 — SD
7 — STD HQ   PDF JPG — 3

000

| Item	Name	Description
1	**Battery status**	Indicates the power status of the battery.
2	**Scan count**	Indicates scan count.
3	**File format**	Indicates current file format for the scanned image. Choice: PDF, JPEG.
4	**Color mode**	Indicates current color mode. Choice: Color, Black and White.
5	**USB**	Indicates the scanner is connected to a computer.
6	**Memory card**	Indicates an inserted memory card.
7	**Resolution**	Indicates current resolution. Choice: STD (300 dpi), HQ (600 dpi), STD HQ (1200 dpi).

# 2. Installation

2.1 Precautions

- Keep the product out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- Do not install the product in a humid or dusty place.
- Place the product securely on an even, flat surface. Tilted or uneven surfaces may cause mechanical or paper-feeding problems.
- Retain the product box and packing materials for shipping purposes.
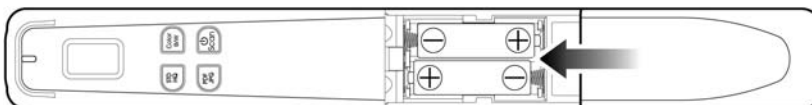
2.2 Install the Batteries (not included)

1. Push and remove the battery cover on the scanner.
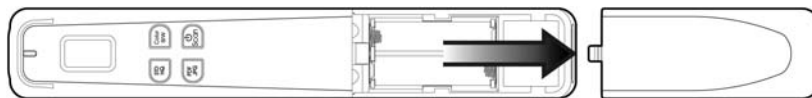
2. Insert 2x AA batteries into the battery compartment. Make sure the batteries are inserted with the correct polarity. (note correct + - direction)
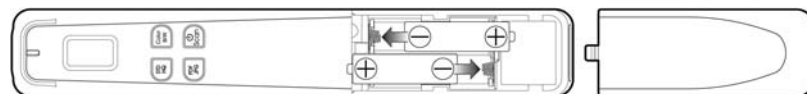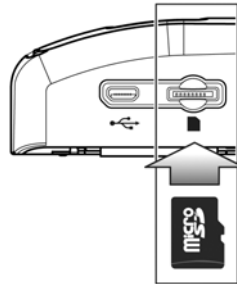
3. Insert the battery cover.

Note:
The scanner does not recharge the rechargeable batteries.

2.3 Install micro SD™ Card (not included)

You must install a micro SD™ card to the SD slot of the scanner to store your images. Gently press in until the SD card is latched.

micro SD card

Note:

- The scanner only accepts micro SD™ card in FAT16 or FAT32 format. NTFS and other file formats are not supported.
- Always insert a micro SD™ card before calibrating and scanning.

# 3.   Operation

3.1   Suitable and Unsuitable Original Types

Suitable for Wand Scanning

The scanner used as a wand scanner without the feeder dock is designed to obtain the best scanning results with photo and document up to 216 x 356 mm (8.5 x 14 in.) size.

3.2   Turn on the Scanner

Press ⏻ to turn on the scanner. The LED will be flashing and then extinguished. The [**Scanner Ready**] screen will be displayed as illustrated.

Press ⏻ again for about 3 seconds to turn off the scanner. The scanner will be automatically shut off if it is left idle for 3 minutes.
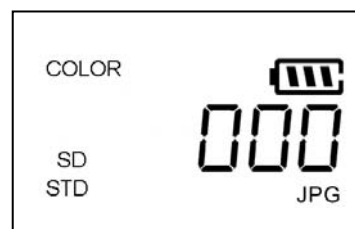

3.3   Choose Your Desired Scan Settings

- Press "**Color/BW**" to switch to BW mode.

- Press "**JPG/PDF**" to switch to PDF file.

- Press "**STD/HQ**" to switch to HQ (600 dpi), or STD HQ (1200 dpi) mode.

   * The default scan settings – Color, JPG, STD (300 dpi).

3.4 Start Wand Scanning (Hand-Held)

1. Place your document on a flat surface.

2. Press ⏻ to start a scan.

3. Hold the scanner and glide the scanner gently over the surface of the page as illustrated.

4. During scanning, the scan speed (SP0~SP1) will be displayed on the screen. "SP0" indicates the lowest speed while "SP1" is warning you the scan speed is too fast. To obtain the best image quality, please keep your speed at the lowest level (SP0).

5. Press ⏻ to stop the scan. If a page is scanned successfully, the scan count (001) will be displayed.
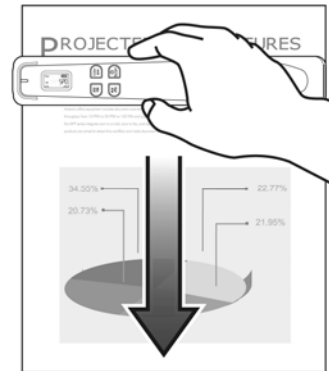
Note:
1. Refer to the following list for a proper scan speed (based on an A4-size paper): 0.6 second (B&W, STD) /1.6 second (Color, STD) ; 2.4 seconds (B&W, HQ) / 6.5 (Color, HQ)

2. If you hold the scanner vertically and scan your original from right to left, your image will be rotated 90° left. Please use the image-editing software application to rotate the scanned image correctly.

3. You may download the free image editing software application – the Avision Image Editing Helper to enhance your image quality after completing product registration on our web site at http://www.avision.com.
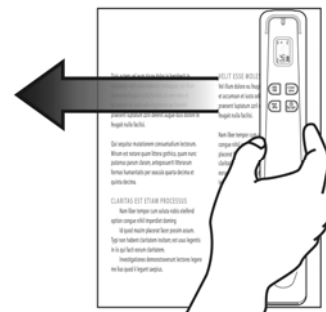
3.5 View or Download the Scanned Images (Windows)

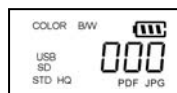1. To view or download your scanned images, you can either remove the micro SD^{TM} card and connect it to a card reader, or connect the scanner to your computer via the supplied USB cable (be sure to turn on your scanner).
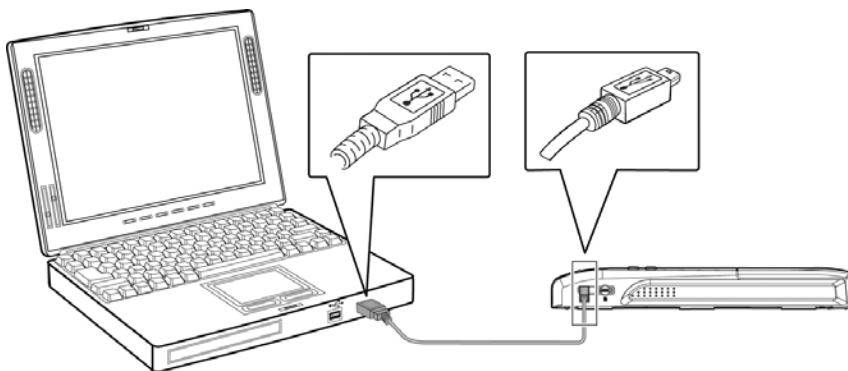
* When the scanner and your computer is connected successfully, all tasks are

interrupted and the USB connection screen *is display.*

Warning:
It is recommended to download the scanned images by removing the memory card from the scanner and then inserting the memory card to your computer instead of connecting the scanner directly to your computer with the USB cable since this may require a lot of battery power.

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2. Your computer should recognize the card or the scanner as a Removable Disk.

3. Click the Removable Disk and you will find a folder of "DCIM" is created and all the PDF files will be stored in the subfolder of "200DOC" and the JPEG files in the subfolder of "100PHOTO". File name starts from IMG_0001.pdf or IMG_0001.jpg.

   Each scanned image is given a file name with the prefix **IMG_** followed by a 4-digit sequential number in the order the images are stored. *For example,* **IMG_0001.jpg**, **IMG_0002.jpg**, **IMG_0001.pdf**, **IMG_0002.pdf**, *etc.*

   JPG files are stored in a sub folder titled **DCIM\100PHOTO**. The folder stores 9999 photo files, and then automatically creates another sub folder titled **101PHOTO**, and so on to **199PHOTO**.

   PDF files are stored in a sub folder titled **DCIM\200DOC**. The folder stores 9999 document files, and then automatically creates another sub folder titled **201DOC**, and so on to **299DOC**.

3.5.1 Computer System Requirements for USB Connection

Operating system: Windows XP, Windows Vista, Windows 7, Windows 8
                   Mac 10.5 or above *(Mac is used only for data transferring)*

USB port: USB 2.0 /USB 1.1

3.5.2 After Successful Connection

When the scanner connects with the PC, an additional drive is listed in the Explorer window titled **Removable Disk [drive letter]**, or the personalized title you may have previously assigned to your microSD^{TM} card.

3.5.3 Safely Disconnect Scanner/micro SD Card From PC

1. On the Windows System Tray, click the hardware removal icon.

2. Click the "Safely remove USB mass Storage device" message with the corresponding Drive.

3. When the "Safe to Remove Hardware" message appears, you can safely remove the scanner's USB cable.

3.6 View or Download Images with iPad

1. Plug the iPad Camera Connector（not included）to iPad dock connector. Plug the mini USB connector of the supplied USB cable to the Mini USB port of your scanner and plug the USB connector of the supplied USB cable to iPad Camera Connector.

2. The scanned images in the micro SD card of your scanner will be displayed in iPad in 3 seconds.

3. Choose "**Import All**" to load the scanned images to the album of your iPad.

iPad Camera Connector
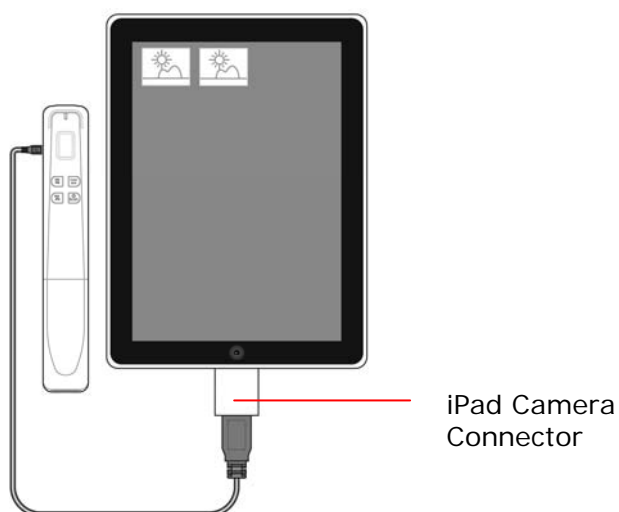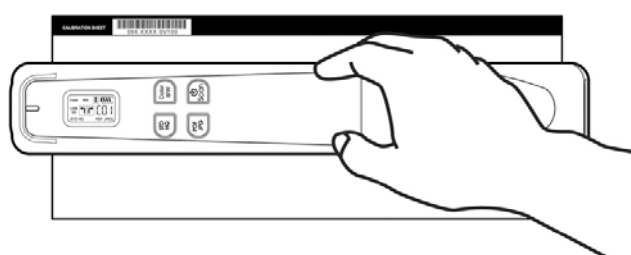
4. Maintenance

4.1 Calibrate the Scanner

Calibrate only if the scanned image looks fuzzy, the color looks abnormal (e.g., darker than normal), after 8K+ scanned, or the scanner has been stored without use for a long time. The calibration process resets the Contact Image Sensor to resume its color and sharpness precision.

To calibrate the scanner, complete the following steps:

1. Make sure the battery is fully charged and a memory card is inserted.

2. Remove the calibration sheet from its plastic cover and lay it on a flat surface with the printed side **UP**.

3. Place the scanner on the **white area** of the calibration sheet, at the top of the white area.

    * Make sure the sheet is clean (i.e. no debris or colored objects).

4. Turn off the scanner.

5. To enter the calibration mode, press and hold the [**JPG/PDF**] + [**Scan**] buttons until [**C01**] is displayed on the screen and the LED flashes in *green*, *indicating you are in calibration mode*.
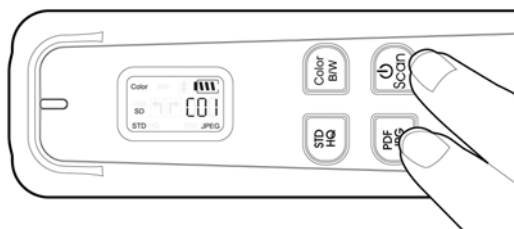
6. Slowly slide the scanner down over **ONLY** the white area of the calibration sheet.

7. The scanner completes the calibration sequence and automatically **powers off**.

8. Carefully place the calibration sheet back into the plastic cover and store it in a safe place for future use.

During calibration, move the scanner only in the white area.

4.2   Clean the Rollers and Glass

It is recommended to clean the scanner approximately every 200 scans or if vertical lines or stripes appear on the scanned image.

To clean the rollers and glass:

1.   Turn the scanner over to reveal the rollers and glass.

2.   Wipe the rollers and the glass with the included cleaning cloth as illustrated.

3.   Wipe the scanner with a dry and clean lint-free cloth.
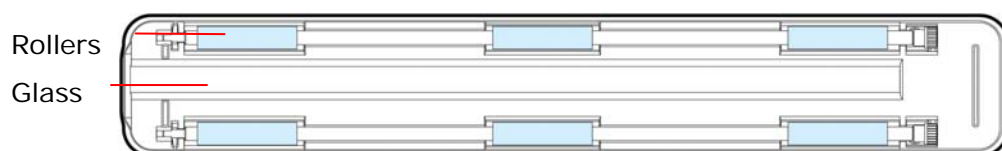
5. Troubleshooting

5.1 Error Messages

If there is error during scanning, the LED light will be flashing in red color and error code will be displayed. Refer to the following table to clear the error conditions.

Error	Problems/Causes	How to restore
E02/No SD card	1. No memory card inserted. 2. Card not recognized.	1. Insert a memory card. 2. Try a new different card.
E03 / Card Full	Card full; Images can not be saved.	Free more space or insert a new memory card.
E08 / Low battery	Battery power is getting low	Replace batteries (or recharge if using rechargeable batteries).
E05 / No image scanned	1. No scan data detected. 2. Scanner time out.	Wait until message disappears.
E06 / Calibration Fails	Scanner has detected a calibration error	Recalibrate the scanner (See User Manual for details.)
SP1 / Scanned speed too fast	Images look distorted (Scanning speed too fast)	Rescan original again with a lower speed.
None	Vertical lines appeared on images (The glass and rollers are dirty.)	Clean the glass and rollers with a cleaning cloth.

* Warning:
If "low battery" is indicated on the LCD display, it is recommended to replace the batteries to prevent possible incomplete scanned images or other operational problems.

5.2 Frequently asked questions and answers

Q :	Why does not my scanner turn on?
A :	The batteries may not enough power or may not be inserted correctly.

Q :	The image can not be saved into the memory card while scanning?
A :	Make sure you have a microSD^{TM} card inserted correctly, and that it has adequate space

Q :	Why doesn't my computer recognize my scanner when it's connected via USB cable?
A :	Make sure the cable connection is correct and secure. Restart the computer if necessary.

Q :	Why are my scanned images distorted?
A :	You may be scanning too fast; scan again at a lower speed.

Q：	**Why do all the images I scanned have the same date when saved on the memory card? Is it possible to show real time for these images?**
A：	Yes. Please follow these steps to set a real-time clock for the device: 1. Open your browser and type Avision's web site (http://www.avision.com) at the URL address. On the Product or Support page, select this mobile scanner and then download a time.txt file for the device. 2. Make sure your scanner is inserted with a SD card and a battery full of power. 3. Turn on your scanner and connect it to your computer with a USB cable. Your computer should recognize the scanner as a Removable Disk. 4. Copy and paste the time.txt file to the root directory of the Removable Disk Drive. 5. Open the text file. The text file contains a string in YYYY/MM/DD/HH/MM format which indicates year(4-digit)/month(2-digit)/date(2-digit)/hour(2-digit)/minute(2-digit), for example, 2013/06/15/07/30. 6. Change the date and time to correct values and then save the file. 7. Turn off the scanner and then turn it on. Now your have completed setting the real-time clock for the device. Scan a document and save the image to the memory card. Connect the scanner to your computer, you will find the scanned images are displayed with correct date and time. Note: ● Charge your battery when its power is running low. ● If the battery has been replaced or the battery has no power at all, you will need to recharge the battery and repeat the above steps to set a real-time clock again.

Q:	Why there are strange lines on the scanned document?
A:	Please check the following: 1. Are there scratches on the original or is the original clean？ 2. Remove any stains or dust from the original before scanning. 3. Clean the rollers and glass with the included cleaning cloth. (Refer to the section "Cleaning the Rollers and Glass))

Q:	Will the scanner recharge my rechargeable batteries?
A:	No, the scanner does NOT recharge rechargeable batteries. You must use your own battery charging device.

Q:	Should the scanner feel warm to the touch?
A:	It is normal for the scanner to emit a small amount of heat after prolonged use. However, if there are strange odors coming from the scanner or the scanner feels a little bit hot to the touch, turn the scanner off immediately.

5.3   Technical Service

Please register your product on our web site (http://www.avision.com) to have complete technical support. Before contact Avision, please prepare the following information:

- Scanner serial & revision number (located on the bottom of the scanner);
- Hardware configuration (e.g., your host CPU type, RAM size, free disk space, display card, interface card);

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Web Site: http://www.avisionbrasil.com.br

6. Specifications

Specifications are subject to change without notice. For the most up-to-date and detailed specifications, please refer to our web site at http://www.avision.com

Item		Description
Regulatory model number		HF-1408B
Image Technology		Contact Image Sensor (CIS)
Scanner Display		TSN LCD (1.2 in.)
Max. Document Size		216 x 355 mm (8 x 14 in.) (600 dpi / 1200 dpi)
		216 x 914 mm (8.5 x 36 in.) (300 dpi)
Resolution		STD (300 dpi)/ HQ (600 dpi) / STD HQ (1200 dpi)
Output File Format		JPEG / PDF
Interface	Memory Card	micro SD^{TM} card
	USB	micro USB
Auto power off		3 minutes
Supported Operating Systems		Windows XP / Vista / 7 / 8
Power		2 x AA Alkaline batteries *Warning: Never mix battery types as this could cause damage or fire. The scanner does not recharge rechargeable batteries.*
Net Weight		230 g (0.51 lb.)
Dimensions（WxLxH）		258 x 41 x 35 mm (10.16 x 1.61 x 1.38 in.)