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Insighters i-Workstation™

Insight Workstation iS-PF1

User Manual

Thank you for using insight workstation iS-PF1. Before use, please read this user manual and ensure you are familiar with all notes, warns, parts, function and operation procedure in order to use it properly. After reading, it is suggested to keep this user manual so that you can check it whenever you need.

Product Name: Insight Workstation

Model: iS-PF1

Production Date: See on the label.

Manufacturer: Shenzhen Insighters Medical Technology Co., Ltd

Manufacture Address: The 13th floor of Hengtemei Building,Ganli Road No. 3, 518000 Shenzhen, Guangdong, PEOPLE'S REPUBLIC OF CHINA

Certification: CE, ISO13485, FDA

Warranty: 3 years

Edition

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Note: the edition of this manual may be upgraded without notice due to changes in software features or technical specifications.

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Chapter 1 Important Information

1.1 Product Information

Insight Workstation is a powerful workstation compatible with all Insighters video laryngoscope handles via cable/wireless module, it is designed and developed to assist physicians in Anesthesiology, ICU, ER, Respiratory Care to do endotracheal intubation, continuous airway monitoring, and airway management tele-medicine. The insight workstation should be used only by individuals who have been trained and authorized by a physician or the institution providing patient care.

1.2 Notice to All Users

Insighters recommends that all users shall read this manual before use. Failure to do so may result in injury to the patient, may compromise the performance of the insight workstation, and may void the warranty. Insighters recommends that new users:

- *Obtain instruction from a qualified individual*
- *Practice on a mannequin before clinical use*
- *Acquire clinical training experience on patients without airway abnormalities*

1.3 Warnings & Cautions

Warnings indicate that injury, death, or other serious adverse reactions may result from use or misuse of the device. Cautions indicate that use or misuse of the device may cause a problem, such as a malfunction, failure, or damage to the product.

Throughout the manual, pay attention to sections labeled Important, as these contain reminders or summaries of the following cautions as they apply to a specific component or use situation. Please heed the following warnings and cautions.

⚠ **CAUTIONS**

The insight workstation is a common sealed device and the user should ensure that the surface is dry and clean and prevents any liquid from entering the interior.

The user must receive adequate training and study before use.

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The user should place the insight workstation properly prevent it from falling from a height, being subjected to strong oscillations, or other mechanical external forces.

• The insight workstation complies with the electromagnetic compatibility requirements of IEC 60601.

• Users should install and use the electromagnetic compatibility information provided in the random file.

• Portable and mobile RF communications equipment may affect workstation performance and avoid strong electromagnetic interference when used, such as near cell phones, microwave ovens, etc.

FCC Caution:

Part 15.21

• Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Part 15.19

• This device complies with 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.

Part 15.105

• NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Insight Workstation：

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction
with any other antenna or transmitter.

2. This equipment complies with RF radiation exposure limits set forth
for an uncontrolled environment.

3.This equipment should be installed and operated with minimum distance 20cm
between the radiator& your body.

Insight Workstation-- Wireless(NFC) module：

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction
with any other antenna or transmitter.

2. This equipment complies with RF radiation exposure limits set forth
for an uncontrolled environment.

3. The device has been evaluated to meet general RF exposure
requirement. The device can be used in portable exposure condition
without restriction.

> ⚠️ **WARNINGS: USE**

- The insight workstation should only be used by doctors or trained caregivers. Before using the insight workstation, the user should check and ensure that the product works properly and safely.
- The insight workstation must be charged with the power adapter supplied by Insighters, otherwise the workstation may be damaged.
- The signal transmission may be delayed due to the local network.
- Insighters may release software upgrades for the workstation, detailed information please base on real device. (Refer to section 6.3 system software.)
- The signal input and signal output sections can only be connected to the equipment supplied by Insighters
- Under the premise that the packaging is damaged or not used for a long time,

> **WARNINGS: PRODUCT SAFETY**

- Insight workstation should not be placed close to or stacked with other equipment. If they must be used close to or stacked, they should be observed to operate properly in the configuration in which they are used.
- Class A equipment is intended for use in industrial environments where it may be potentially difficult to ensure electromagnetic compatibility in other environments due to workstation conducted disturbances and radiated disturbances.
- Use of accessories outside the regulations may result in increased emissions or immunity to emissions from equipment or systems.

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Chapter 2 Introduction

2.1 Insight Workstation

The insight workstation is compatible with the following Insighters devices, which this manual refers to Insighters i-Scopes™ video laryngoscope series:

- *Video Laryngoscope iS3-L/iS6/iS2*
- *Video Rigid Laryngoscope iS3-R*
- *Video Flexible Laryngoscope iS3-C/iS3-F*

The insight workstation supports connection with i-Scopes™, i-Consumbles™ by wireless module/Type-C cables, to assist physicians to do endotracheal intubation, continuous airway monitoring, tele-medicine, online training, etc.

This user manual introduces in detail how to use the insight workstation. For more information that you may require, please contact with your device supplier or call Insighters Customer Service +86-755-89313133 or send email to contact@insighters.cn

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2.2 Insight Workstation Part Accessories

2.2.1 Standard Parts & Accessories

Standard Parts & Accessories

Insight workstation iS-PF1

12V DC power adapter	i-Scopes Connection Cable	Wireless (NFC) module

i-Scopes™ Video Laryngoscopes	

Video Laryngoscope Handle		Video Rigid Laryngoscope
iS3-L	iS6	Handle iS3-R

Video Flexible Laryngoscope Handle

iS3-C/ iS3-F/ i-Core

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2.2.2 Optional Components

OPTIONAL PARTS & ACCESSORIES	
Trolley	Insighters Stylet

2.3 Buttons, Icon & Connections

The following tables provide general information regarding the buttons and icons on the insight workstation.

2.3.1 Buttons

Standard Parts & Accessories		
Front panel		**Power:** This is a button located on the upper right corner of the display. Press and release to turn on the workstation. Press and hold to turn it off. Note: If the workstation locks up or becomes unresponsive for any reason, press and hold the Power button for 7 seconds to restart the system.
		Volume +: This is a button to increase the volume.
		Volume -: This is a button to decrease the volume.
		Quick Button: Get quick enter to the Display page.
		Display: Entrance to Image Display (Displays images from i-Scopes, Front Camera).
		Information Platform: Entrance to Information Platform page (Supply professional industry information and news for users to browse, the function will come in subsequent versions).

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Home screen		**Reserve Consultation:** Entrance to Reserve Consultation page (Enable users to make appointment with other users to do remote consultation through video, voice and sheet method).
		Medical Report: Entrance to Medical Report page (Enable users to make and manage the patient's medical report (Video/Image, as well as manage the images and videos).
		Friends: Entrance to Friends Management page (Enable users to browse and manage friend lists, such as add/delete friend, accept/refuse friend relationship application, etc).
		Contact Insighters: Entrance to Contact Insighters page (Enable users to call for online service from Insighters by video, voice and text message).
		Settings: Entrance to Settings page (Enable users to do system settings such as WIFI connection, language, time, etc.).
Display		**Exit:** Exit Display page.
		Take Photo: Take photo of the live display from Front Camera/Scopes.
		Screen Recording: Record video of the display on screen, audio included.
		Tele-medicine: Entrance to Tele-medicine page (Enable users to invite friends to participate online consultation).
Tele-medicine		**Exit:** Exit Tele-medicine page.
		Screen Recording: Record video of the display on screen, audio included.
		Invite Friends: Browse friends list and invite friends to participate online consultation.
Reserve Consultation		Video Reservation. Enable users to make a tele-medicine reservation by video.
		Voice Mail Reservation. Enable users to make a tele-medicine reservation by voice mail.
		Sheet Reservation. Enable users to make a tele-medicine reservation by sheet.

Medical Report		**Make Image Report:** Enable users to make the medical report with photos taken.
		Make Video Report: Enable users to make the medical report with videos taken.
		Photo: Browse and manage the photos taken.
		Video: Browse and manage the videos taken.
		Image Report: Browse and manage the medical report with photos.
		Video Report: Browse and manage the medical report with videos.
		Create New Folder.

2.3.2 On-Screen Icons

Icon	Function
	Battery Status: Indicates the remaining battery power volume.
	WIFI Status: Indicates the WIFI connection status.
	4G/5G Status: Indicates the 4G/5G connection status.
12:00	**System Time:** Indicates the system time, need users to set up when first use.

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2.3.3 Insight Workstation Front Panel
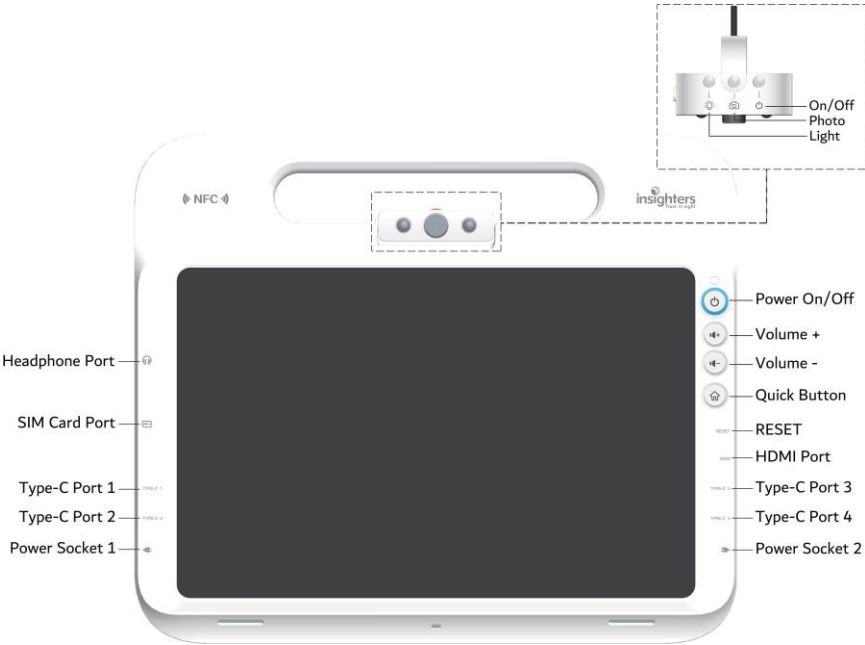
2.3.4 Insighters Workstation Back Panel & Wireless (NFC) Module

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ease read the Warnings & Cautions section before performing the following tasks.

Before you can use the insight workstation for the first time, users shall inspect the components, set up the system, and perform a functional test as recommended by Insighters medical according to following procedures:

1. Perform Initial Inspection: Inspect the workstation for any obvious physical damage that may have occurred during shipment.

2. Mount the System (Optional): Set up the workstation on the trolley, please refer to the user manual of Trolley.

3. Check the Battery: If battery volume is not enough, please charge before use.

4. Attach the Cable/Wireless (NFC) Module and Scope: Connect the appropriate cable/wireless (NFC) module to the workstation, and then connect the scope to the cable/wireless (NFC) module.

5. Connect to an External Monitor (Optional): Connect the monitor to an external display source, such as a larger monitor screen, by using an HDMI cable.

6. Configure User Settings (Optional): Enter data customized to your clinic, and configure settings such as the WLAN, date and time, language, display brightness and other administrative settings.

7. Perform a Functional Check: Before you use the device for the first time, perform a functional check to ensure that the system is working properly.

Chapter 3 Setting Up

3.1 Perform Initial Inspection

Please read the Warnings & Cautions section before performing the following task.

Visual inspection the surface and screen of workstation have no visual abnormality, no obvious Nick, burr and other mechanical damage.

3.2 Mount the System (Optional)

Please read the Warnings & Cautions section before performing the following task.

1. The workstation can be mounted to Insighters Trolley iS‐TC1 for convenient use.
2. The detailed installation process please refer to the Introductions for Trolley.

3.3 Charge the Workstation Battery

Please read the Warnings & Cautions section before performing the following task.

The insight workstation includes an internal lithium battery. Insighters recommends users to charge the battery fully prior to first use.

Under normal operating conditions, a fully charged battery lasts approximately 6 hours. For optimal battery life, ensure that the battery is fully charged before you try to use the workstation in battery mode.

3.3.1 Battery Status Icons

Red battery bar: 0% to 5% battery life remaining. Battery must be charged.

Red battery bar: 5% to10% battery life remaining. Battery must be charged.

Orange battery bar: 10% to 20% battery life remaining.

White battery bar: 50% to 100% battery life remaining.

Green battery bar: 100% battery life remaining.

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3.3.2 Instructions for battery charge

1. Connect the power adapter to the power cable.

2. On the right/left side of the workstation, connect the power adapter to the power socket.

3. Plug the power supply into a hospital‑grade power outlet.

4. Allow the battery to charge. Fully charging the battery may take up to 6.5 hours.

3.4 Attach the Cable/Wireless (NFC) Module and Scope

This section provides basic instructions for users on how to connect workstation by cables/wireless (NFC) module with i-Scopes.

The workstation supports connection with Insighters i-Scopes by Type-C cable and wireless (NFC) module at the same time, it can supply power to the i-Scopes and display image.

The workstation supports display maximum 3 channels of image from the i-Scopes connected and the front camera on the top. When entering tele-medicine mode, only 2 channels of image can be displayed.

The following images show the video displays in the screen when one or two scopes are connected to the workstation:
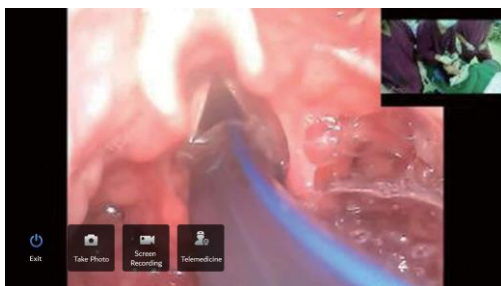
3.4.1 Connection Via Wireless (NFC) Module

1. Pull up the Wireless (NFC) Module from the groove on the back cover of workstation , press the On/Off button to turn on the wireless (NFC) module.

2. Waiting about 10 seconds, the battery indicator light on wireless (NFC) module stop flashing and keeps on.

3. Fully insert the wireless (NFC) module into connection port of i-Scopes™ handle.

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4. The wireless module will connect with workstation automatically, if users find not connected automatically, please put the wireless (NFC) module close to "NFC" area of workstation (as below picture), there will be a tone if connect successfully.

5. When connection successfully, enter display page on the screen to view the image
6. After use, please disconnect the scope with wireless (NFC) module, press the On/Off button 2-3 seconds to turn off the wireless (NFC) module.
7. Put wireless (NFC) module back to the groove. Wireless (NFC) module will be automatically charging when it's in the groove.

3.4.2 Connection Via Type-C cable

1. Connect Type-C cable with the Type-C Port of workstation.

2. Fully insert the end of Type-C cable to the connecting port of i-Scopes.

3. When connection successfully, enter display page on the screen to view the image
4. After use, disconnect the Type-C cable with workstation and i-Scopes.

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3.5 Connect to an External Monitor (Optional)

> Please read the Warnings & Cautions section before performing the following task.

By using an HDMI cable, users can connect the insight workstation to an external monitor that is approved for medical use.

(Note: Image quality on the external monitor may vary according to the resolution of the external monitor.)

1. Connect one end of the HDMI cable to the HDMI port on the insight workstation.

2. Connect the other end of the cable to the HDMI port on an external monitor approved for medical use.

3.6 Configure User Settings (Optional)

The Settings menu enable users to configure or change the following system settings:

3.6.1 Settings Menu

Icon	Function
WLAN	Search, select, connect/disconnect the WLAN.
Date	Setting for the date, time and time format.
Bluetooth	Search, select, connect/disconnect the Bluetooth.
Brightness	Setting for the screen brightness.
Boot Password	Setting for the password (username).
Language	Setting for the menu language.
Input Method	Setting for the input method.
User Manual	Browse the User Manual of insight workstation.
Software Update	Check and update the software of insight workstation.
About	Browse basic information of the insight workstation.

3.7 Perform Functional Check

Before using the device for the first time, Insighters recommends users to perform following functional check to ensure that the insight workstation is working properly.

1. Check the battery volume.

2. Connect the cable, wireless (NFC) module and scope to the insight workstation,

according to the instructions in Connect the Video Cable and Scope on page 15.

3. Press the (power icon) Power button. The workstation shall turn on.

4. Press the Display button to enter Display page. Check if image are displaying

normally and clearly.

5. Press the (Take Photo icon) Take Photo button. Take a photo and check if successfully.

6. Press the (Screen Recording icon) Screen Recording button 2-3 seconds. Take a video and check if successfully.

7. Press the (Medical Report icon) Medical Report button, to enter the Medical Report page, check if can make video/photo medical report successfully

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Chapter 4 Function Description

Please read the Warnings & Cautions section before performing the following tasks.

This chapter consists of the following function descriptions:

1. Display
3. Record Video or Take Photo
4. Tele-medicine
6. Reserve Consultation
7. Make and Manage Medical Report
8. Viewing Media
9. Friend Management & Watch Live Stream
10. Contact Insighters Service
11. Browse Online Information Platform
12. Guidelines for Connecting Printer of Workstation

4.1 Display

Please use Wireless module or Type C cable to connect i-Scopes with the workstation.

4.1.1 Single-window Display

1. Press the Power 　　　 button. The workstation turns on.
(Note: If the monitor locks up or becomes unresponsive for any reason, press and hold the Power button for 10 seconds to reboot the system.)

2. Press the Display button to enter Display page.
3. Display the image from Front Camera:

a. Press the On/Off button of Front Camera to turn on it.

b. On the workstation screen, verify that image displayed is from the front camera.

4. Display the image from copes:

a. Select a suitable scopes handle

b. Connect scope handle by Type-C cable or wireless module with the workstation.

4.1.2 Multi-window Display and Adjustment

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1. The workstation support maximum 3 channels of image displayed simultaneously:

a. In normal mode, the image will be displayed from front camera X1, scope

2. Switch Multi-window Display: Press the display window to select the main display window.
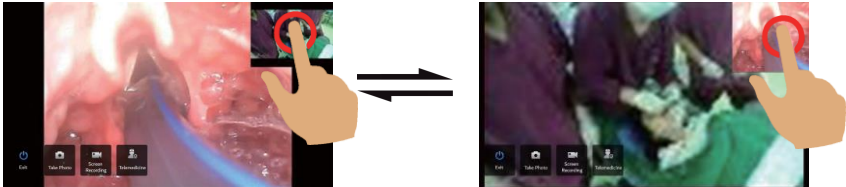
3. Zoom in/out the display window: Use two-fingered "swipe" to zoom in/out the display windows:
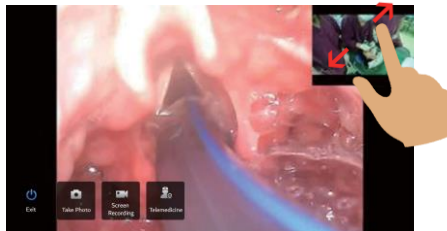
4. Move the display window: Press-hold the display window and move position.

4.2   Record Video or Take Photo

The workstation supports video and audio recording, and the ability to save photos of the live display from front camera/i-Scopes. The system saves this data to its internal memory. Users can view the recordings or photos on the workstation or share them with other users.

1. Press the Display button to enter Display page.
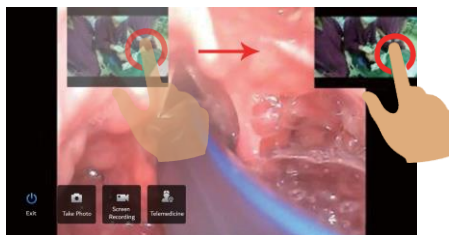**2.** If cannot see the function buttons on display page (Buttons: Exit, Take Photo, Screen Recording, Tele-medicine), press the screen to display function buttons.

Take Photo

3. Take photo of the main display window: Press the display window to select the main display window. Press the Take Photo button. A photo of live display (main display window) from front camera/scopes is taken.
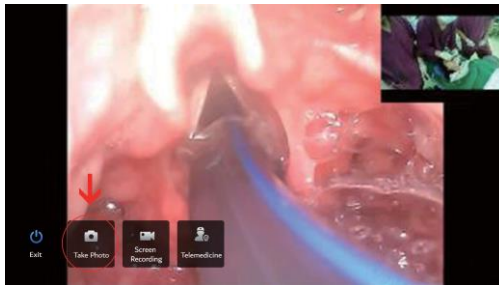
4. Take photo by the Front Camera: Press the Photo button on the top of Front Camera to take photo from Front Camera.

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5. Take Photo for the i-Scopes image (With wireless module): Short press the Take Photo/Video button on the Wireless (NFC) Module to take photo from i-Scopes.

Video and Audio Recording

6. Video recording: Press the [Screen Recording] Video Recording button 2-3 seconds to start recording. To exit video recording, press [■] Finish button on bottom right corner of screen.
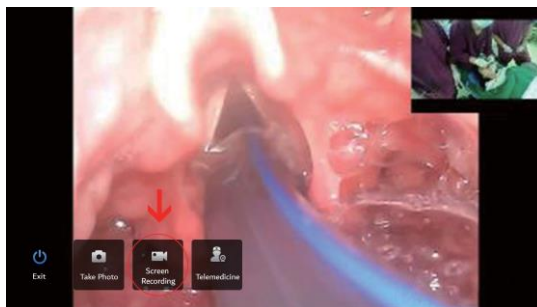
7. Video recording with Wireless (NFC) Module: Press the Photo/Video button on the Wireless (NFC) Module 2-3 seconds to start recording. To exit recording, press the

Photo/Video button again.

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4.3 Tele-medicine

Please read the Warnings & Cautions section before performing the following task.

With 4G/5G/WIFI networks, the insight workstation supports tele-medicine function, it enables users to connect with other users both locally and globally for online consultation and training.

Connect 4G/5G/WIFI Networks

1. Connect 4G/5G Networks: Insert the 4G/5G SIM Card to the SIM Card Port, the workstation will connect to the network automatically.

2. Connect WIFI Networks: Set up Wifi connection in Settings Menu

3. Check the network connection status on top right corner of Home Screen. (Refer to 2.3.2 On-Screen Icons)

Tele-medicine

4. Enter Display page.

5. Press Tele-medicine button to enter Tele-medicine page.

Friends Management

6. Press Invite Friends button to browse friends list and Press phone button to invite friends to participate online consultation/training.

7. Maximum 3 friends can be invited.

8. From the Friends list menu, users can open the "Live Stream "function to share the display with all friends on line.

Online Consultation/Training

9. When the workstation is displaying image from i-Scopes connected and front camera, the live video will be displayed in both native screen and friends' screen through 4G/5G/WIFI network.

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10. If the workstation connected with multi-i-Scopes (Multi-window Display), maximum 2 windows of the live video from native machine can be transferred to friends' sides. (Maximum 2 windows: Front Camera*1, i-Scopes*1).

11. Press Exit button to exit the online consultation/training.

4.4   Reserve Consultation

Please read the Warnings & Cautions section before performing the following task.

The insight workstation supports online reserve consultation with other users both locally and globally.

1. From the Home Screen, press the Reserve Consultation button to enter Reserve

Consultation page.

Video Reservation

2. Press the ⊙ Video Reservation button to have a video talk with Insighters customer service stuff to make a reservation with other users.

3. Press the 🎤 Voice Mail Reservation button to leave a voice message to Insight-ers customer service people to make a reservation with other users.

Sheet Reservation

4. Press the 📋 Sheet Reservation button to leave a test message to Insighters customer service stuff to make a reservation with other users.

4.5   Make and Manage Medical Report

Please read the Warnings & Cautions section before performing the following task.

The insight workstation allows users to make and manage the medical report with photos/videos taken.

1. From the Home Screen, press the Medical Report button to enter Medical Report page.

Make Image Report

2. Press the 🖼 Image Report button to enter the edit page.
3. Input the patient's and physician's information.
4. Browse and select the photos taken.

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5. Sign the medical report.

6. Press the NEXT button to generate the report, it will be saved automatically into the

image report list

7. Enter the Image report list, select the medical report for printing if needed.

Make Video Report

8. Press the ▶ Video Report button to enter the edit page.

9. Input the patients' and Physician's information.

10. Browse and select the video taken.

11. Sign the medical report.

12. Press the NEXT button to generate the report, it will be saved automatically into the image report list

13. Enter the video report list, select the medical report for printing if needed.

Manage Image/Video Report

14. Press the 📷 Image Report button or 🎥 Video Report button to enter the report list.

15. Press the reports to view the files.

16. Select Files: Press and hold the file to select files.

17. Delete Files: Select the files, Press the delete 🗑 button to delete files.

Print Image Report

1. The printer have connection with network, connect the workstation to the same network by WIFI.

2. Press to select the medical report/photo, press the Print button, there will be a search page of printers.

3. Press to select the printer, start to print report.

4. The printer required for support of Mopria Pint Service.

4.6 Viewing Media

> Please read the Warnings & Cautions section before performing the following task.

1. From the Home Screen, press the Medical Report button to enter Medical Report

page.

2. Press the 🖼 Photo button or ▶ Video button to enter the photo/video list.

3. Press the photo/video to review the files.

4. Share Photo/Video: From the photo/video list, press the Share button to send files to friends.

5. Export Photo/Video: Connect the USB flash drive to the one of the Type-C ports(Side of workstation. From the photo/video list, press the copy button, the files are moved or copied to the USB drive. After the files have finished exporting, remove the USB drive from the workstation.

6. Delete Photo/Video: From the photo/video list, press delete button to delete files.

4.7 Friend Management & Watch Live Stream

Please read the Warnings & Cautions section before performing the following task.

1. From the Home Screen, press Friends button to enter Friend Management page.

Watch the live stream

2. Press the Live Stream button to enter the live stream list from friends.
3. Choose and Press an available live stream to watch the live stream.

Friend Management

4. Browse Friends: Press the Friend List button to browse friends.
5. Share Photo/Video: From the friend list, press "Share" button to send photo/videos taken to friends.
6. Add Friends: Press the Add Friends button to enter the search page, input Insighters ID or Phone number to search and add friends.

Local Information

7. Press the Local button to check the Insighters ID and basic data of native machine system.

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4.8   Contact Insighters Service

Please read the Warnings & Cautions section before performing the following task.

The insight workstation supports online after-sales service, users can contact Insight- ers online after-sales service center by video call or leave Voice Mail/Text Message.

1. From the Home Screen, press the Contact Insighters button to enter aftersales service page.

Online Service

2. Press the 🧑 Online Service button to have a video talk with Insighters customer service people.

Voice Mail

3. Press the 💬 Voice Mail button to leave a voice mail to Insighters customer service people.

Text Message

Press the 🔳T Text Message button to leave a message to Insighters customer service people.

4.9   Browse Online Information Platform

Please read the Warnings & Cautions section before performing the following task.

The insight workstation supports an online information platform, including medical field news, journals database, academic literature, etc.
*Information platform function will be updated in future version of software.

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4.10   Guidelines for Connecting Printer of Workstation

Step 1: Turn on the workstation, enter the system, click "settings wlan", find the hotspot of the printer, then input the password to connect the device.

Step 2: Find the workstation printing interface and select the printer with the IP address.

(Note: If not, you need to add it manually, click "All Printers", click "Add Printer" ,then select "Mopria Print Service", and finally click the button   +   , input the name and IP address of the printer.)

Step 3: Click the button ⌄ to expand interface of the print setting. You can select the number of copies, paper size, color, orientation, etc. as required. After completing the settings, click the button 🖨 to print.

Chapter 5 Cleaning & Disinfecting

Please read the Warnings & Cautions section before performing the following task.

Prior to each use of insight workstation, ensure that the workstation and cable have been cleaned according to the guidance provided in the table in section 5.1.
The availability and regulatory compliance of the cleaning products provided in this manual vary by region; ensure that you select products in accordance with your local laws and regulations.
To significantly reduce the amount of effort needed to clean the workstation, do not let contaminants dry on any parts or accessories. Bodily contaminants tend to become securely attached to solid surfaces when dried, making removal more difficult.
The following table describes the risk classification for the workstation, Wireless module and Type-C cable, including the Spaulding's/CDC classification for the minimum required disinfection level.

5.1 System Risk Classification

Device	Packaged	Use	Spaulding's/Cdc Classification	Cleaning and Disinfection Level		
				Clean	Low	High
Workstation*	Nonsterile	Reusable	Noncritical	X		
Wireless Module*	Nonsterile	Reusable	Noncritical	X		
Power adapter	-	-	-	X		
Type-C Cable†	Nonsterile	Reusable	Noncritical	X		

Clean the device when visibly soiled and on a regular basis, as per a schedule established by the medical care facility or provider.
Shaded areas indicate that the disinfection level is not required.

Compatibility

The table in section 5.2 shows the cleaning products that have demonstrated compatibility with workstation materials.

Results with compatible solutions may vary based on exposure periods and device handling.

Availability of the cleaning products varies by country, and Insighters is unable to test products in every market. For more information, please contact Insighters Customer Center or your local representative. For contact information, please visit www.insighters.cn.

5.2 Compatible Cleaning Solutions

Product	Cleaning and Disinfection Level			
	Workstation	Wireless Module	Trolley	Power Adapter
Isopropyl alcohol (70%, Medical-grade)	1000	1000	100	100
Ethyl alcohol (75%, Medical-grade)	1000	1000	100	-

Value indicates number of compatibility cycles tested on the component. Exceeding the recommended number of cycles may affect the potential life of the product.

5.3 Clean the Workstation and Wireless Module

Important
Ensure that you do not use any abrasive substances, brushes, pads, or tools when cleaning the video monitor screen. The screen can be scratched, permanently damaging the device.

1. Turn off the workstation, disconnect the power adapter from the workstation.

2. Using one of the solutions listed in the table in section 5.2, wipe the exterior of the workstation according to the solution manufacturer's instructions.

5.4 Clean the Trolley and Power Adapter

1. Turn off the workstation, and then disconnect the power adapter from the workstation and AC power.

2. If cleaning the trolley, using one of the solutions in the table in section 5.2, expose the workstation to the cleaning solution according to the solution manufacturer's instructions.

3. If cleaning the power adapter, using Isopropyl alcohol, wipe the power adapter to remove visible soil.

Chapter 6 Maintenance & Safety

6.1 Periodic Inspections

In addition to the user performing routine inspections before and after every use, periodic inspections should be performed to ensure safe and effective operation. It is recommended that an operator familiar with the instrument perform a full visual inspection of all components at least every three months. The inspector should check the workstation for the following:

- *External damage to the equipment*
- *Damage to the power supply or adapter*
- *Damage to the connectors or cable insulation*

Report any suspected defects to Insighters Customer Service or your local representative. For contact information, please visit www.insighters.cn.

6.2 Workstation Battery

The battery is not user replaceable. In case of battery malfunction, do not attempt to replace the workstation battery. Any attempts to replace the battery by unauthorized service technicians may cause serious harm to the user and will void the warranty. Please contact your Insighters Customer Service or local representative for more information on battery replacement.

6.3 System Software

Insighters may release software upgrades for the workstation. Software upgrades are supplied directly by Insighters or an authorized representative, and installation instructions are provided with the upgrade.

This manual document the most current software version available at the time of writing. If your workstation does not function as described in this manual, or to deter- mine if your software should be updated, contact Insighters Customer Care.

Do not perform any software upgrades from third-party vendors or attempt to modify

the existing software. Doing so may damage the monitor and void the warranty.

For information about software language options, see Buttons, Icons & Connections on page 8.

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6.4 Device Disposal

The workstation and related accessories may contain batteries and other environmentally hazardous materials. When the instrument has reached the end of its useful service life, it must be disposed of in accordance with WEEE requirements. Coordinate disposal through your Insighters Service Center, or alternatively, follow your local protocols for hazardous waste disposal.

6.5 Device Repair

If repairs become necessary, for other damages incurred during initial shipment, the Customer must follow the repair procedure. Warranty repairs will be made without charge . All other repairs are subject to Insighters' applicable standard repair or exchange charges. If requested, Customer will be advised of the estimated cost of the repair work or a product exchange before it is undertaken. All repairs carry a 90 days warranty. Exchange products carry the applicable Insighters product warranty. If the damaged product is not returned within thirty (30) days of receipt of the replacement product, Customer will be invoiced for the full list price of the replacement. Insighters reserves the right to refuse or return any product sent back without prior authorization of Insighters Customer Support Department.

Chapter 7 Limited Warranty

7.1 Warranty Policy

Except as otherwise provided herein and/or by the applicable warranty information for a specific product or type of product, all Insighters-branded products are generally warranted to be in good working order at the date of delivery and free from defects in workmanship and materials for three (3) years from date of delivery for insight work-station. Any such product(s) with a manufacturing defect occurring during the applicable warranty period will be promptly replaced or, at the sole discretion of Insighters, repaired at no charge to Customer.

7.2 Limitation of Liability

Insighters is not liable, directly or by way of indemnity, either expressly or impliedly, for: (1) any damages which might arise or be caused, whether by the Customer or by any of the users of the products provided by Insighters, as a result of, in connection with, or otherwise attributable to: (a) misuse, abuse, mishandling and/or improper operation and/or storage; (b) repairs, servicing, modifications and/or alterations performed by any person or entity, other than Insighters or an authorized repair facility of Insighters; (c) use in combination with adaptors, accessories and/or equipment from other manufacturers unless authorized or recommended by Insighters or, (d) use in any manner other than those for which such products are designed and are other- wise intended to be used; and, (2) any special, incidental, consequential, punitive, exemplary or indirect damages, including but not limited to alleged damages for delayed shipment, non-delivery, product failure, product design or production, inability to use such products or services, loss of future business (lost profits), or from any other cause, whatsoever, in connection with or arising from the purchase, sale, lease, rental, installation or use of such Insighters products, even if Customer has been advised of the possibility of such damages.

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Chapter 8 Product Specifications

8.1 Specifications, Standards & Approvals
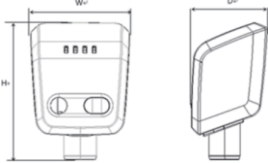
General Specifications	
Display	13.3 inch, TFT-LCD color display
Front camera	1280×720 ppi
Classification	Electrical Class II, Applied Part BF, Has Built-in Battery
DC power supply	12V DC, 0.6-1.4A
Android version	7.1.1
Storage	Total: 32.00GB
Compatibility	Compatible with Insighters video laryngoscope series: • Video Laryngoscope iS3-L/iS6/iS2 • Video Rigid Laryngoscope iS3-R • Video Flexible Laryngoscope iS3-C series, iS3-F series
Connection method	Wireless connection(≤20m) / Cable connection(2m)
Connection port	Type-C port X 4 HDMI port X 1 Headphone port X 1 Power socket X 2

Physical Specifications		
Specification	Value	
Display	1920x1080	
Display Area(A)	340 mm	
Height (B)	310 mm	
Width (C)	370 mm	
Depth (D)	55 mm	
Weight	2525 g	
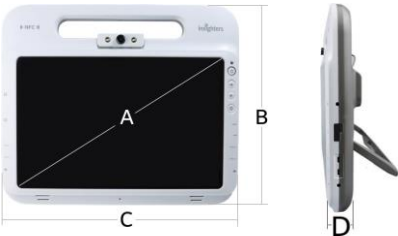
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8.2　Component Specifications

Wireless Module Specifications	
Material	ABS
Size	 W52(mm) x H73(mm) x D40(mm)
Weight	81g
Connection Method	Wireless connection with Insight Workstation

Trolley		
Specification	**Value**	
Wheelbase diameter (A)	55 cm	
Min. height (B)	116 cm ± 2 cm	
Max. height (C)	175 cm ± 2 cm	
Safe working load	5 kg	

8.3 Battery Specifications

Workstation Battery Specifications	
Battery type	Lithium-ion
Battery life	Under normal operating conditions, a fully charged, new battery lasts approximately 6 hours.
Charging time	Charging time off-line will take no more than 6.5 hours from an empty battery to a full charge.
Rated capacity	13000 mAh
Nominal voltage	7.4 V

Power Adapter Specifications	
Input voltage	AC100-240V
Input frequency	50/60Hz
Rated capacity	1.4A-0.6A
Input current	DC12V

Wireless Module Battery Specifications	
Battery type	Lithium-ion
Battery life	Under normal operating conditions, a fully charged, new battery lasts approximately 4.5 hours.
Charging time	Charging time off-line will take no more than 4 hours from an empty battery to a full charge, the battery only can be charged by workstation.
Rated capacity	2200 mAh
Nominal voltage	3.7 V
Output frequency	2.4GHz

Operating & Storage Specifications	
Operating Conditions	
Temperature	5–40°C (41 to 104°F)
Relative humidity	10–80%, Non-condensing
Atmospheric pressure	427.5 ~ 806.3mmHg(57.0 ~ 107.5kPa}
Shipping & Storage Conditions	
Temperature	-20–60°C (-4 to 140°F)
Relative humidity	10–95%, Non-condensing
Relative humidity	122.3 ~ 806.3mmHg(16.3 ~ 107.5kPa)

8.4 Electromagnetic Compatibility

• The workstation complies with the IEC 60601 standard electromagnetic compatibility requirements

• Users should install and use according to the electromagnetic compatibility information provided by the random file.

• Portable and mobile RF communications equipment can affect workstation performance and avoid strong electromagnetic interference when used, such as near cell phones, microwave ovens, etc;

• The guide and instructions of the manufacturer are in the attachment.

• This workstation should not be used in close proximity or stacked with other equipment, and if they must be used close to or stacked, they should be observed to operate properly in the configuration in which they are used.

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8.5 Electromagnetic Emissions
Guidance and Manufacturer's Declaration—Electromagnetic Emissions

The workstation is expected to be used in the electromagnetic environment specified below, and the purchaser or user of the workstation should ensure that it is used in this electromagnetic environment.

Missions Test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11	Group 1	The workstation uses RF energy only for its internal functions. Therefore, its RF emissions are low and there is little chance of interference with nearby electronic devices.
RF emissions CISPR 11	Class A	The system is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Not applicable	

8.6 Electromagnetic Immunity
Guidance and Manufacturer's Declaration—Electromagnetic Immunity

The workstation is intended to be used in the electromagnetic environment specified below, and the purchaser or user of the workstation should ensure that it is used in this electromagnetic environment.

Immunity	IEC 60601 test level	Compliance	EMC Environment
Electrostatic discharge(ESD} IEC 61000-4-2	±6 kV Contact discharge ±8 kV Air discharge	±6 kV Contact discharge ±8 kV Air discharge	The floor should be wood, concrete or ceramic. If the floor is covered with synthetic material, the relative humidity should be at least 30%.

Electrical fast transient/burst IEC 61000-4-4	±2kV Power cord	±2kV Power cord	The network power supply should have the quality used in a typical commercial or hospital environment.

Surge IEC 61000-4-5	±1 kV line to line ±2 kV line to ground	±1 kV line to line ±2 kV line to ground	The network power supply should have the quality used in a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Video Laryngoscope requires continued operation during power mains interruptions, it is recommended that the Video Laryngoscope be powered from an uninterruptible powersupply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3A/m	3A/m(50Hz/60Hz)	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTEUT is the a.c. mains voltage prior to application of the test level.			

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Guidance and Manufacturer's Declaration—Electromagnetic Immunity

The Video Laryngoscope is intended for use in the electromagnetic environment specified below. The customer or the user of the Video Laryngoscope should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance Level	EMC Guide
Conducted RF IEC61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should not be used closer to any part of the workstation than the recommended isolation distance, including cables. This distance should be calculated from the formula corresponding to the transmitter frequency. **Recommended isolation distance** $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 800 MHz to 2.5 GHz Interference may occur near devices marked with the following symbols.
Radiated RF IEC61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	

a Stationary enter airports are strong, such as: wireless (cellular / cordless) phones and terrestrial mobile radio base stations, amateur radio, AM (amplitude modulation) and FM (frequency modulation) radio broadcasts and television broadcasts, etc., the field strength is theoretically inaccurate Predictive. In order to assess the electromagnetic environment of a fixed RF transmitter, the survey of the electromagnetic field should be considered. If the measured field strength of the location where the workstation is located is higher than the RF compliance level of the above application, the workstation should be observed to verify that it is functioning properly. Additional measures may be necessary if abnormal performance is observed, such as reorienting or locating the workstation.

b The field strength should be less than 3 V/m over the entire frequency range of 150 kHz to 80 MHz.

Operations & Maintenance Manual: Product Specifications.

8.7   Recommended Separation Distances

Recommended Separation Distances between Portable and Mobile RF Communications Equipment and the Insight Workstation System

The workstation is expected to be used in an electromagnetic environment where radiated RF disturbances are controlled. Depending on the maximum output power of the communication device, the purchaser or user of the workstation can prevent electromagnetic interference by maintaining the minimum distance between the portable and mobile RF communication device (transmitter) and the workstation as recommended below.

Rated maximum output power of the transmitter/W	Corresponding distance /m corresponding to different frequencies of the transmitter		
	150 kHz ~ 80 MHz $d = 1.2\sqrt{P}$	80 MHz ~ 800 MHz $d = 1.2\sqrt{P}$	8800 MHz ~ 2.5 GHz $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For the rated maximum output power of the transmitter not listed above, the recommended isolation distance d, in meters (m), can be determined using the formula in the corresponding transmitter frequency column, where P is provided by the transmitter manufacturer. Transmitter maximum output rated power in watts (W).
Note 1: The formula for the higher frequency range is used at frequencies of 80 MHz and 800 MHz.
Note 2: These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by the absorption and reflection of buildings, objects and human bodies.

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